

IMPACT BONDS

Considerations for Investment Returns and Pricing of Outcomes

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Table of Contents

INTRODUCTION	4
MARKET OVERVIEW	4
PRICING OUTCOMES: CONSIDERATIONS FOR OUTCOME PAYERS	4
Determine Project Scope	5
Define a Procurement Strategy	6
Estimate Project Costs and Payment Levels	7
Select an Approach to Pricing Outcomes Payments	8
Evaluate the Business Case	9
Determine the Payment Structure and Level of Risk Sharing	10
CONSIDERATIONS FOR INVESTORS	12
Investment Risks	12
Operational and Contractual Arrangements	14
Cost of Capital	15
Capital Structures	15
Structuring Investor Cash Flow	16
FUTURE OUTLOOK	16

INTRODUCTION

Impact bonds represent a relatively new type of financing modality that holds great promise for crowding in private capital and sharing performance risks in projects in developing countries, as part of the World Bank Group's Maximizing Finance for Development approach.¹ These instruments involve a performance-based contract that employs private finance to cover the upfront cost of project delivery. Upon successful delivery of pre-specified outcomes, the party issuing the contract—typically a domestic government or international development funding agency—reimburses the investors for the cost of the service, plus a return.

Impact bond outcome payers and investors often have different framings and understandings of what constitutes an appropriate return. Recent interviews with impact bond outcome payers who were part of an evaluation of UK impact bonds underscore the challenges posed by these divergent views on returns. For instance, outcome payers usually understood returns in terms of a conventional contract, in which a gross profit or surplus would be payable. In contrast, investors framed returns as time-based and risk-adjusted, with expected returns dependent in part on whether full repayment of investor money is certain (e.g., debt) or not (e.g., equity and quasi-equity).²

In this context, the accurate pricing of outcomes and the determination of investor returns is a topic of high interest among stakeholders having a desire to support impact bond operations. Their interest and concerns are understandable. Outcome payers are keen to ensure that outcomes are priced to avoid paying windfall profits to private investors, while ensuring that commissioned projects are commercially viable. For instance, if investor hurdle rates are too low, then a project will not move forward.

The nascence of impact bonds presents outcome payers with a number of challenges when seeking to balance appropriate returns and commercial viability. Although there are a few benchmarks on returns, to date there is no real consensus on industry best practices in this area. Of the 134 deals that have launched, very few have made investment terms publicly available.

This paper offers an initial framing of this challenge, so that outcome payer organizations can begin to address questions regarding how to approach pricing outcomes in impact bonds. This paper is not intended as a step-by-step "how-to guide". Each deal is unique and different. Outcome payers are encouraged to use the tools laid out in this paper and to adapt them to the specific context.

MARKET OVERVIEW

Currently, 134 impact bond transactions have launched globally, representing \$370 million in impact investment raised.³ The upfront capital for impact bonds ranges from an estimated \$110,000 to \$26.3 million (CHF 26 million). The definition and reporting of returns varies—some projects report a maximum internal rate of return (IRR), while others only report a cap on gross profit.

To date, there has been limited information available publicly on investor returns or methods of calculating returns. This lack of public information may reflect a broader level of discomfort among outcome payers and investors about openly discussing returns.

Most impact bond investors to date have invested with a focus on generating a social return. Generally, most impact bonds have offered investors returns that reflect a pure risk-adjusted market rate of return. Investors in impact bonds have ranged from mainstream financial institutions (such as Goldman Sachs, Munich Re and QBE), to high-net-worth individuals and wealth management platforms (such as UBS and Bank of America Merrill Lynch), development finance institutions (such as the Inter-American Development Bank and the Overseas Private Investment Corporation), impact investment funds (such as Calvert Foundation), and many local and international foundations looking to make mission-aligned investments (such as Rockefeller Foundation and Fundación Corona).

PRICING OUTCOMES: CONSIDERATIONS FOR OUTCOME PAYERS

There is no standard industry approach to setting prices and determining payment levels. Pricing strategies vary according to the specific context in which an impact bond is developed, the nature of the negotiation process, and the contracting model.

1 World Bank Group, "Maximizing Finance for Development: Leveraging the Private Sector for Growth and Sustainable Development," September 19, 2007.

2 Ronicle, James, Tim Fox and Neil Stanworth, "Commissioning Better Outcomes Fund Evaluation. Summary Report Targeted at Investors," prepared by Ecorys for the Big Lottery Fund, December 2016.

3 Brookings Institute, Global Impact Bonds Database, January 2019; Social Finance Impact Bond Database.

TABLE 1: Reported Investor Returns in Selected Impact Bond Deals

Deal	Country	Amount Invested	Returns (Per Annum)	Capital Protection
Social Impact Bond in Peterborough ^a	United Kingdom	GBP 5m	3%	No
The Benevolent Society Social Benefit Bond ^b	Australia	AUD 10m	Debt: 0-10% Equity: 0-30%	Equity: No Principal-protected debt: 100% capital guaranteed
Massachusetts Juvenile Justice Pay-for-Success ^c	United States	\$18m	Senior: 11% Subordinated: 18%	No, but deal supported by \$6m non-recoverable philanthropic grants
Connecticut Family Stability Pay-for-Success ^d	United States	\$11.2m	Senior: 6-6.5% Subordinated: 5-6%	No
ICRC Humanitarian Impact Bond ^e	Mali, Nigeria, DRC	CHF 26m	7%	60% of invested capital protected
Educate Girls ^f	India	\$267,000	15%	No
Utkrisht Impact Bond ^g	India	\$4.8m	7% (capped at 8%)	No
Cameroon Cataract Impact Bond ^h	Cameroon	\$2m	8% ceiling and 4% floor	100% guaranteed repayment of principal
Colombia Employability Impact Bond ⁱ	Colombia	COP 2.2bn	8% nominal return	No

^a Peterborough—<https://www.socialfinance.org.uk/sites/default/files/news/final-press-release-pb-july-2017.pdf>.

^b Benevolent Society—<https://emmatomkinson.com/2017/07/18/aussie-sibs/#SIB2>.

^c Massachusetts—<http://www.payforsuccess.org/project/massachusetts-juvenile-justice-pfs-initiative>.

^d Connecticut—http://www.payforsuccess.org/sites/default/files/resource-files/CT_FACTSHEET_FINAL.pdf.

^e ICRC—<https://www.devex.com/news/icrc-launches-world-s-first-humanitarian-impact-bond-90981>.

^f Educate Girls—<https://www.brookings.edu/blog/education-plus-development/2016/07/18/educate-girls-development-impact-bond-could-be-win-win-for-investors-and-students/>.

^g Utkrisht—https://assets.ctfassets.net/bbfdx7vx8x8r/216mkoR8lCGIEllimGOyAi/f03cf868dd8b8c5eef311b28d1bf93a4/180118_T.he_Utkrisht_Impact_Bond_-_Design_Grant_Case_Study_vFinal.pdf.

^h Cameroon Cataract—<https://www.cgdev.org/blog/envisioning-pay-success-learning-eye-health-dib-cameroon>.

ⁱ Colombia Employment—<https://www.brookings.edu/blog/education-plus-development/2017/03/31/colombia-leadsthe-developing-world-in-signing-the-first-social-impact-bond-contracts/>.

Payment levels should be fair for all parties. Payments must be high enough to be commercially viable and low enough to avoid windfall profits for investors and a welfare loss for taxpayers. Given the scrutiny that outcome payments will likely face, parties should, to the extent possible, be transparent about the rates of return and their calculation in the contract.⁴

Key steps for outcome payers include:

- Determine project scope;
- Define a procurement strategy;

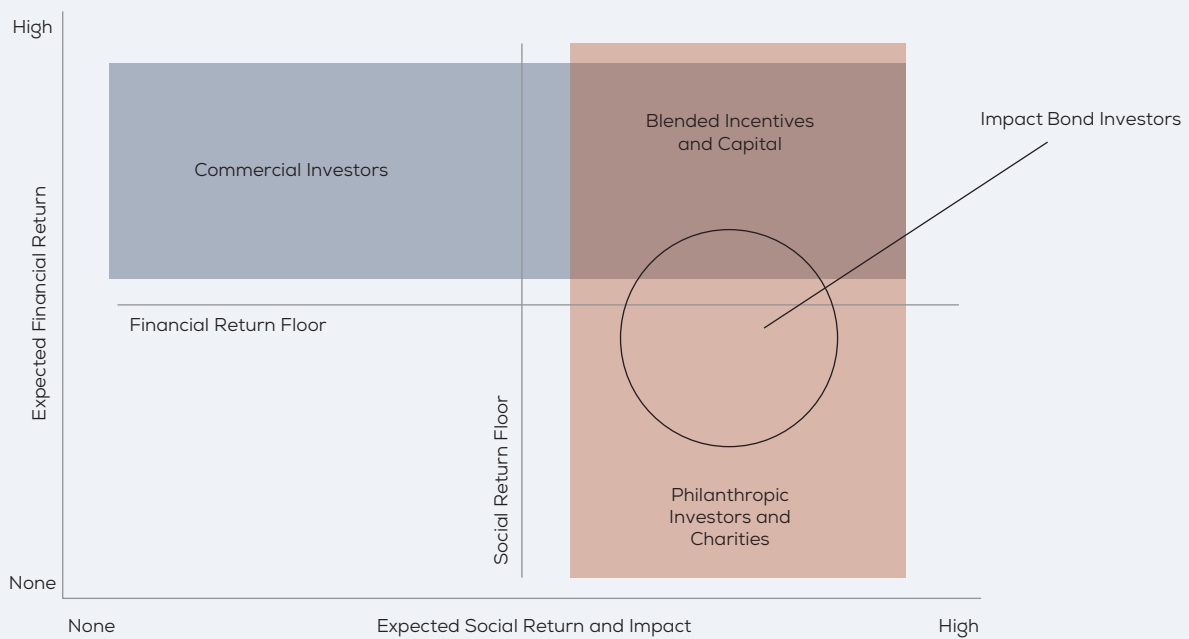
- Select an approach to pricing outcomes payments;
- Estimate project costs;
- Evaluate the business case; and
- Determine the payment profile.

Determine Project Scope

To determine payment levels, outcome payers first must define the general scope and size of a project and stipulate how relevant dimensions are fed into their cost and risk models. Key elements include population analytics for projecting the expected level of engagement with the target population and service referrals and retention levels of the cohort, the expected intervention and service specification, length of program, the evaluation approach and measurement calendar, and the estimated impact

⁴ Hatry, Harry, Matthew Eldridge, Arden Kreeger and Reed Jordan, "Making Sound Cost Decisions in Pay for Success Projects: Estimating Costs and Determining Success Payment Rates," Urban Institute, September 2017.

Figure 1. Impact Bond Investor Types



scenarios. Developing these key inputs will be critical to any attempt to assign prices and calculate investor returns. The quality and reliability of the analysis and the evidence underpinning these inputs will be critical for investors and outcome payers to understand risk scenarios.

Define a Procurement Strategy

Early on, outcome payers should define the specific procurement strategy to be used for engaging with transaction parties. This will have important implications for the options for pricing outcomes. Procurement options will depend greatly on procurement legislation and organizational policies.

Three common approaches for impact bonds include⁵:

- *Negotiated prices*—For impact bonds, where either (i) knowledge is limited regarding cost and performance, or (ii) there is only one likely service provider, or (iii) an intervention does not exist and must be constructed from the ground up, outcome payers may wish to engage in a direct contracting process or a restricted competitive process in order to be able to engage project participants

⁵ “How-to Guide: Procurement Second Edition,” Government Outcomes Lab, United Kingdom, 2018.

BOX 1: Example of Negotiated Prices: Peterborough Impact Bond

In the first impact bond in the United Kingdom, an impact bond to reduce reoffending at Peterborough prison, the U.K. Ministry of Justice contracted and negotiated directly with the social investment intermediary, Social Finance. Although the returns to investors were benchmarked against potential savings to the government, the specific terms of the project were collaboratively defined and negotiated among the different project stakeholders. This example from the U.K. is typical of many markets, where outcome payers choose not to tender out their first impact bond projects to allow for more flexibility to co-design and negotiate prices.

directly throughout the project design and negotiate prices.

- *Competitive bidding*—In this approach, the outcome payer specifies the outcome it wants, but not the pricing. Bidders are expected to provide proposals that are evaluated based on price and quality. This is appropriate for

BOX 2: Example of Pre-Defined Prices: UK Department of Work and Pensions Innovation Fund

The UK Department of Work and Pensions (DWP) developed a rate card for payment per individual outcome for their procurement of service providers. The government defined ex-ante the outcomes they were willing to pay for, the specific price per outcome and the measurement methodology and then asked organizations to submit proposals through a competitive request for proposal (RFP). Because outcomes were not measured against a live control group, the price per outcome was discounted to reflect the fact that some outcomes would be achieved anyway, even if the impact bond program did not exist.

Nature of Outcome	Maximum Price of Outcome
Improved attitude towards school	£700
Improved behavior	£1300
Improved attendance	£1400
Entry Level Qualification	£900
NVQ level 1 or equivalent	£1100
NVQ level 2 or equivalent	£3300
NVQ level 3 or equivalent	£5100

situations in which the market is more mature and there is a good number of high-quality service providers.

- *Pre-defined prices (tariff/rate-card approach)*—In this approach, outcome payers define how much they are willing to pay for each outcome achieved, thereby setting prices ex-ante. The provider market must be able to assess the risks associated with the probability of achieving those outcomes. This requires the service provider to have the capacity to assess expected costs and impacts. Under this approach, bidders submit proposals that are evaluated based on quality over cost.

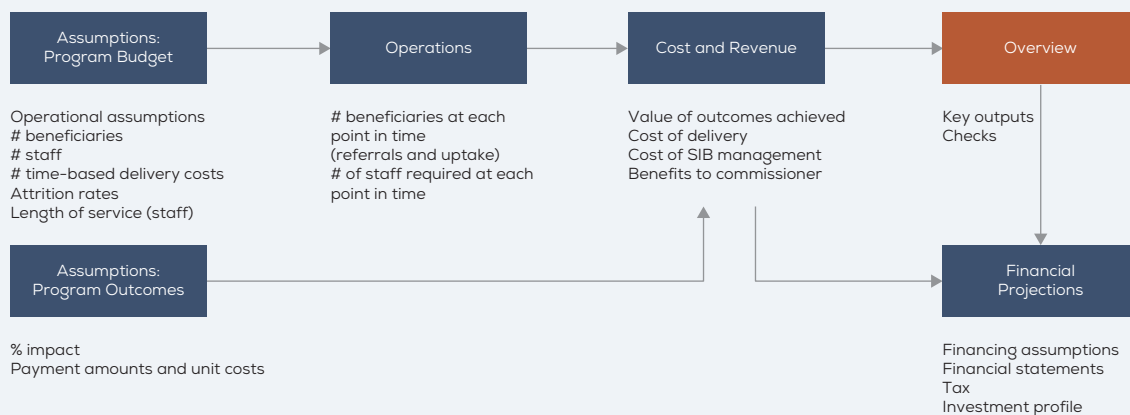
Estimate Project Costs and Payment Levels

To determine payments to investors, outcome payers must estimate project costs in order to inform sound decisions and realistic pricing strategies. The objective is to provide high-quality, cost-effective services, while providing private partners with revenues that are sufficient for commercially viable operations. A key tool to support this analysis is a financial model. An example of an illustrative structure for a financial model for an impact bond is included in Figure 2.

To develop a financial model, the modeler reviews available data; ensures assumptions are internally consistent and support all inputs to the model, identifies key points of sensitivity, and continually challenges, evaluates and updates critical assumptions and results. This model undergoes an ongoing review with necessary feedback as the transaction develops.

The financial model will contain a number of inputs and operational assumptions about the program, including estimated direct and indirect services costs, the length of the program, the number of beneficiaries expected to complete the program,

Figure 2. Illustrative Impact-Bond Financial Model Structure



expected success rates (outcomes achievement), and “impact bond costs,” including any built-in success fee/profit margin, costs of the special-purpose vehicle (SPV), legal costs, performance management costs, and evaluation costs.

The primary output of the model will be an estimated payment amount per unit of outcome achieved. This payment amount will typically reflect the overall amount the outcome payer is willing to pay for improved outcomes; the weighting distributed across different outcome metrics, with assumptions related to adjustments based on inflation and exchange rates; and any discounts baked into the price to reflect outcomes that would have been achieved without the program.⁶

Select an Approach to Pricing Outcomes Payments

Defining how much to pay per unit of outcome achieved is both an art and a science. Prices must consider the expected cost of delivering the service plus the amount of premium the outcome payer is willing to pay for the risk transfer and the social and economic value addition of the project. Below are some common methods and approaches outcome payers use to inform outcome-pricing decisions.⁷ The specific method chosen will depend on the outcome payer’s preferences and on a number of deal-specific factors, such as data availability, procurement strategies, and the level of sophistication of the service provider market.

- *Cost-plus pricing*—A common pricing strategy in government procurement is cost-plus pricing. This method establishes a floor price that is determined by the current/expected costs of the product or service, plus a specific mark-up to the product or services’ unit cost. This effectively serves as the additional return to investors. Cost-plus pricing is a common approach used to price impact bonds in developing countries, where

⁶ Outcome payers are often concerned with overpaying for outcomes that would have occurred anyway. One option for outcome payers is to link payments to an experimental evaluation (i.e., a randomized control trial), which helps ensure that outcomes achieved can be attributed to the program intervention. Experimental evaluations can be highly complex and are not always the optimal approach for an impact bond. Consequently, many outcome payers choose to pay for all outcomes achieved. In these cases, outcome payers will typically make certain assumptions, based on historical baselines, regarding the level of outcomes that would have occurred anyway, and that get “baked into” a discounted price paid per outcome.

⁷ “Investing in Social Outcomes: Development Impact Bonds,” Centre for Global Development and Social Finance, October 2013.

BOX 3: Colombia Workforce Development Impact Bond

In 2017, the Colombian government issued its first impact bond to improve employment outcomes of vulnerable populations. The government at the time was spending large amounts of money on employment programs, yet the results were mixed. The government was already testing, at a small scale, payment-by-results for employability programs, and therefore was willing to pay an additional premium for impact bonds that exceeded its historical cost per outcome. This historical information was used as the starting point for setting a price per outcome that provided a fair value-for-money proposition for the government and a feasible project for investors.

the absence of a widespread social safety net program offers little opportunity to base prices on “savings” to the outcome payer.

- *Historical cost of outcomes*—Outcome payers may be able to define prices based on the historical cost of delivering outcomes. This methodology is particularly relevant where a program already exists for the specific services of interest that are contracted out to non-governmental providers, data is available and reliable, and the outcome payer is willing to pay a premium for results, above what they are already paying for in order to transfer risk and incentivize better performance.
- *Net savings*—Outcome payers define outcome values based on the expected fiscal benefits (savings) that result from a specific project, such as cost reductions in the remedial services offered in the health, education or criminal-justice systems. The savings approach is more common and feasible in developed countries, where a primary focus is on using impact bonds to finance preventive interventions to avoid future costs of remedial services. For example, a job-training program may reduce future costs of paying unemployment benefits.
- *Quantified public value*—Outcome values are fully or partially defined based on the public value of benefits that are created by the program (social and economic value). Public value benefits can include net growth in the local economy, and wider social benefits, such as improvements in health, education attainment, or reduced crime. For example, in the UK Loneliness Social Impact Bond, a

BOX 4: The Savings Trap

Many impact bonds, particularly early projects in the US and UK, focused the design rationale around the ability of a project to generate savings for the government, and made the investor returns a function of the savings that were generated. In reality, the savings approach has created many limitations and hurdles for promising impact bond projects. Even when potential savings exist, those savings are not always “cashable,” meaning savings that are directly reflected in a budget line item. And monetary benefits often accrue to various departments in the government that were not actually paying for outcomes out of their budgets.

Outcome payers in developing countries should define a theory of change for impact bonds that is not entirely dependent on the creation of fiscal benefits. Projects that produce real, cashable savings are uncommon in developed countries and are even more scarce in developing countries, given the widespread lack of coverage and comprehensive social safety nets. Therefore, there will be very few examples of sufficient savings generated through an intervention backed by an impact bond to justify the cost of a service. Instead, outcome payers in the developing world should define the benefits of impact bonds based on the value-for-money that impact bonds can create by enabling governments and development agencies to pay for high-quality, results-driven services.

BOX 5: Village Enterprise Development Impact Bond

In the Village Enterprise Development Impact Bond supported by DFID and USAID, the price paid per outcome was set not to exceed the quantified social value created by the project. Because the impact bond was focused on improving the income and livelihoods of poor beneficiaries, the price that was established was \$1 of outcome payment for every \$1 increase in household consumption created by the project.

portion of outcome payments paid were based on the “quality adjusted life years gained” metric, and in the Village Enterprise Development Impact Bond, outcome payers are expected to pay \$1 for every \$1 of proxied income increase at the beneficiary level.

- *Market determined*—In more mature markets, where multiple service providers possess the capacity to write high-quality bids, outcomes

pricing may be defined through a competitive tender. Outcome payers considering this approach should conduct a cost-benefit analysis to determine the amount they are willing to pay, as well as to assess their own capability to select providers based on cost and proposal quality.

Evaluate the Business Case

Impact bond outcome payers frequently carry out a feasibility study that includes an assessment of the various economic, commercial and financial considerations of the project to inform key decisions regarding moving an impact bond project forward.

Just as in public-private partnership infrastructure projects, impact bond projects should only proceed when the expected benefits outweigh the costs, and when there is an established value-for-money case for using an impact bond versus other forms of program financing.⁸ All measurable benefits—financial, economic and social—can be used to support a business case for an impact bond.

Economic analysis is an integral part of project development and appraisal, including impact bonds. Common approaches used for impact bonds include⁹:

- *Cost-effectiveness analysis (CEA¹⁰)*—CEA is a method that compares the costs of implementing an impact bond relative to the expected outcomes, and indicates which option produces a desired outcome for the lowest cost. CEA is expressed as a “cost per unit of outcome” estimate (e.g., cost per additional individual placed in employment) and can compare only those programs that have the same types of outcomes (e.g., recidivism or employment).
- *Cost-benefit analysis (CBA¹¹)*—CBA goes further than CEA in terms of placing a monetary value on the changes in outcomes as well (e.g., the value of placing an additional individual in employment). This means that CBA can examine the overall justification for an impact bond (“Do the benefits outweigh the costs?”), as well as compare policies that are associated with quite different types of outcomes. CBAs quantify as many of the costs and

8 “Public-Private Partnership Handbook,” Asian Development Bank.

9 World Bank OPCS Investment Project Financing Economic Analysis Guidance Note.

10 “Knowledge Box: Developing a Social Impact Bond,” UK Government Cabinet Office, Department for Digital, Culture, Media & Sport, and Office for Civil Society, accessed July 2018.

11 HM Treasury, “Cost-benefit analysis guidance for local partnerships,” 2014.

benefits of an impact bond as possible, including wider social and environmental impacts (e.g., crime, air pollution and traffic accidents) where feasible.

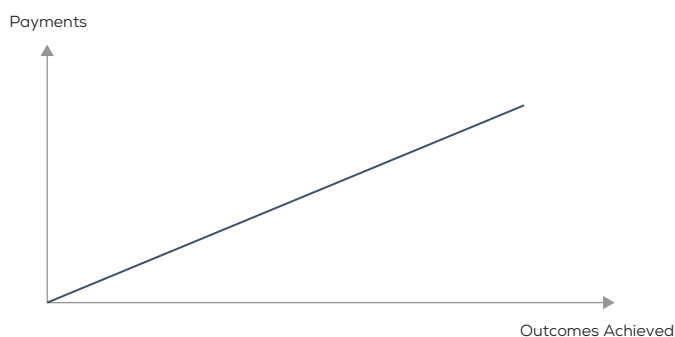
- *Cost-savings analysis*¹²—This involves a comprehensive study of all governmental revenues, expenditures and savings that result from an impact bond program. Unlike CBA, this type of study does not measure the societal effects of the investment beyond the budget. Governments routinely produce these analyses to determine whether a proposed initiative is affordable.

Outcome payers should use economic tools to decide the overall amount they would be willing to pay based on the expected fiscal and public value benefits they would receive in the case of improved outcomes.

Determine the Payment Structure and Level of Risk Sharing

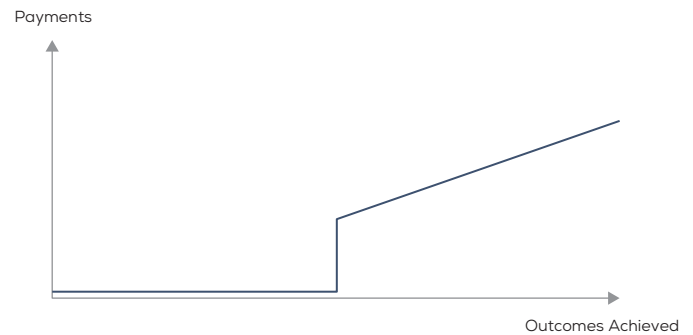
For outcome payers, the way in which payments are structured can have important implications for investor risk and return expectations. For instance, an impact bond that has capped upside and unlimited downside, and that will make no payments below a minimum impact threshold, would be seen as posing a higher risk to investors. Conversely, an impact bond that has uncapped returns and outcomes that can be measured, and that provides payments early in the project and includes a minimum revenue guarantee to cover some of the costs incurred, would be perceived as posing a lower risk for investors. A well-designed impact bond considers the specific trade-offs related to how payments are structured and how much risk is shared between investors and outcome payers.

i. Payment for All Outcomes Achieved (Lower Investor Risk)



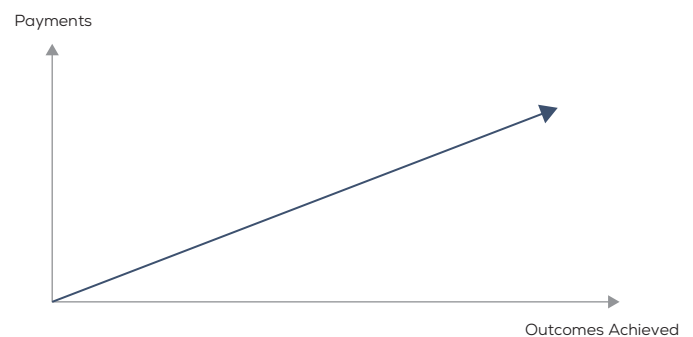
Payments are made for all successful outcomes achieved. This payment approach is common for individual level metrics. For example, in an employability program, payment is made for each individual entering employment. This approach is typically viewed more favorably by investors, because some payment is made even when minimal outcomes are achieved.

ii. Payments Above an Outcomes Threshold (Higher Investor Risk)



Payments are made only if the program surpasses a minimum level of impact. There are different reasons why impact bonds may use a threshold-payment structure. For instance, programs tying payments to an experimental evaluation may have a payment threshold as a result of the minimum effect size required to achieve statistical significance. Another reason for using payment thresholds may be that expected savings only occur above a certain impact level. In all cases, payment thresholds increase risk for investors.

iii. Uncapped Payment (Lower Investor Risk)

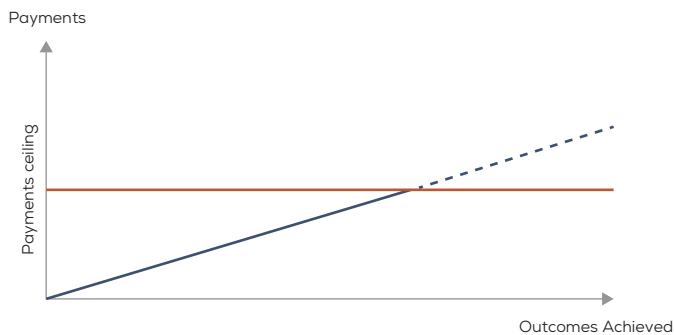


Some impact bonds can include uncapped payments, where more impact creates more return. This structure can provide a strong incentive for investors to justify risk-taking. However, given that

¹² Christian Henrichson and Joshua Rinaldi, "Cost-Benefit Analysis and Justice Policy Toolkit," Vera Institute of Justice, December 2014.

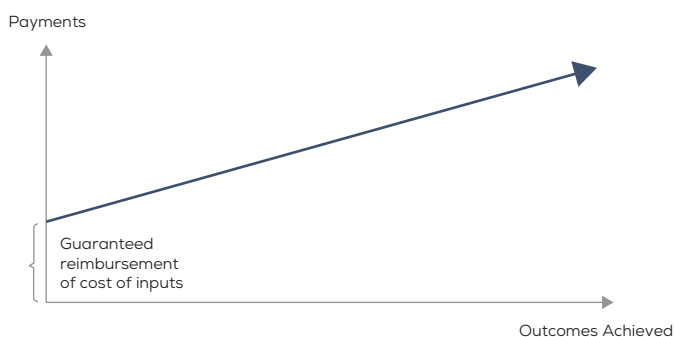
there is no payment cap, it is important for outcome payers to adequately assess realistic impact levels, conduct a rigorous cost-benefit analysis to ensure benefits in all scenarios outweigh costs, and analyze the fiscal and accounting implications of high-impact scenarios.

iv. Capped Payments (Higher Investor Risk)



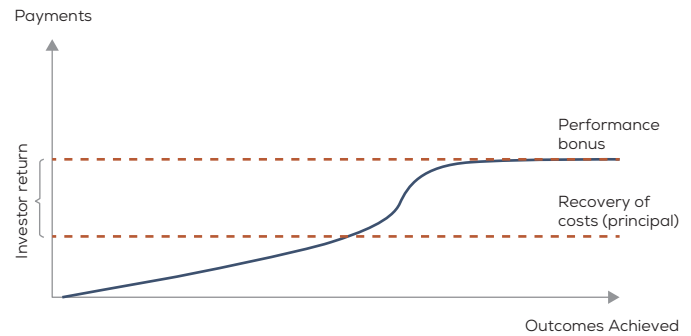
Many outcome payers prefer or are required to stipulate a payment ceiling, where the maximum gross payment available is defined ex-ante. The payment ceiling effectively caps the maximum returns investors can receive. However, the limits on investor returns will likely turn away some mainstream investors.

v. Minimum Revenue Guarantee (Lower Investor Risk)



Some impact bonds may target a greater level of risk sharing with investors, where a certain level of payments is guaranteed based on a partial or full cost-reimbursement approach. This approach effectively provides a certain level of protection of capital and may be a more viable structure for mainstream investors when robust cost and performance benchmarks are not available.

vi. Performance Kicker



BOX 6: UK Fair Chance Fund

The Fair Chance Fund was a £15m nationwide youth homelessness program commissioned by the UK Department for Communities and Local Government (DCLG) and supported by Cabinet Office. Impact bonds were paid out against individual level metrics focused on capturing the journey of the beneficiary, such as “movement into accommodation sustained for 3 months, 6 months, 12 months and 18 months.” Because investors were compensated for the easier-to-achieve outcomes (e.g., initial entry into accommodation) and not just the difficult to achieve outcomes (e.g., sustained accommodation for 18 months), they could assume that even in pessimistic scenarios, they would likely get at least some of their money back.

BOX 7: Massachusetts Juvenile Justice Impact Bond

In 2014, the Commonwealth of Massachusetts launched an impact bond to reach approximately 929 high-risk young men aged 17 to 23 in the Commonwealth’s probation system or exiting the juvenile justice system. The government will only make outcome payments for reductions in incarceration greater than 5.2 percent. By not making payments for outcomes below a specific threshold, the government reduces the risk of overpaying for early indications of success that do not prove to be real outcomes, but greatly increases risks for investors who could lose their money in a scenario where results achieved fall below the pre-set threshold.

Some impact bond structures may wish to create incentives for investors to achieve more difficult impacts, structuring payments so that a bonus

BOX 8: Chicago Child-Parent Center Impact Bond

The impact bond on primary education with the City of Chicago will aim to support a 50 percent increase in kindergarten readiness, a 50 percent increase in 3rd grade literacy, and 44.5 percent reduction in the usage of special education services among program participants. The investors anticipate a total payout of approximately \$25 million; in a scenario where outcomes surpass expectations, however, the maximum payout by the city would be capped at \$34 million.

BOX 9: Cameroon Cataract Impact Bond

In Cameroon, an impact bond will address a critical shortage of cataract surgery services in Cameroon and neighboring countries. It will provide \$2 million to go toward operational costs at a new hospital in Cameroon, with the overall aim of enabling the hospital to reach self-sufficiency in five years. The Overseas Private Investment Corporation (OPIC) will provide a social impact loan to the project. Outcome funders will provide OPIC with guaranteed repayment of principal plus a four percent return if outcome targets are not met and an eight percent return if outcome targets are achieved.

payment is made for certain metrics or levels of impact above a specified hurdle rate. This structure contains a useful incentive for creating greater risk share between outcome payers and investors.

CONSIDERATIONS FOR INVESTORS

Despite its name, an impact bond is not a traditional bond but working capital to pre-finance a performance contract between public and private stakeholders. Although impact bonds operate over a fixed period, like traditional bonds, returns are typically variable, based on the achievement of outcomes. Coupled with a current lack of liquidity, these instruments have a risk profile closer to equity or quasi-equity rather than fixed-income instruments.

Although a robust feasibility study can provide outcome payers with a good benchmark for expected returns, the calculation of investor returns is typically a function of the impact bond design (how risk is allocated), how capital is deployed, and the profile of investors involved.

Some key considerations for understanding investor returns include:

- Investment risks
- Contractual and operational arrangements
- Capital structures
- Cost of capital and
- Investor cash flow.

Investment Risks

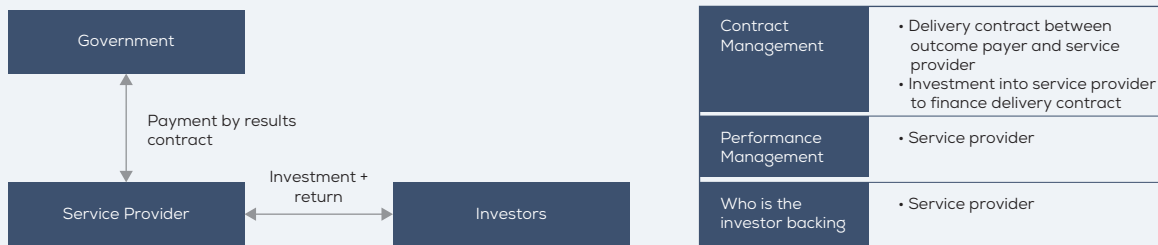
All investments carry risk. In conventional investments, the expectation from investors is that the higher the risk, the higher the expected return. In impact bonds, different investors may have different appetites for risk and requirements for returns. For example, in some impact bonds, philanthropic investors assume additional risk or potentially lower returns to attract other investors to a project that is aligned with all investors' values. Although there is certainly a role for philanthropic capital in early stages of the market, outcome payers will need to crowd in mainstream funders and ensure that the risk and reward structure is equitable, if the number and size of global impact bond operations is to grow.

When investors assess an impact bond, they should conduct due diligence on all aspects of the project that pose potential financial risk, including the quality of contractual arrangements, financial structure, program design and evidence base, the reliability of the analytical work underpinning project assumptions and design, the strength and track record of program implementers, and counterparty risk.

Some key risks for investors include:

- *Intervention risks*—Risk that the program does not work. This risk decreases as evidence of program effectiveness increases.
- *Implementation and operations risks*—Risk of project failure due to poor program implementation. A key part of operations risk for impact bonds is program attrition, retention and enrollment risk, where low levels of initial enrollment and higher-than-expected drop-out and attrition levels during implementation negatively impact the revenue of the project.
- *Appropriations and Counterparty Risk*—Risk that the end payer (typically a government) will not repay the investor if the project meets its outcome targets. Impact bond contracts span several years, which presents a risk that a government's payment might be altered due to

Figure 3. Direct Contract With Service Provider



changing political leadership, economic conditions, or budget priorities over multiple budget cycles. This risk is compounded in many countries where governments, by law, must have their budgets approved annually by a legislative body. Outcome payers can help investors mitigate this risk by paying up front into an escrow “sinking fund” or private trust account, or providing a sovereign guarantee to repay, or by passing multi-year appropriations with a contingency reserve.

- *Evaluation risk*—Risk that the program’s evaluation fails to accurately measure whether outcomes have been achieved (e.g., a false positive or negative). This could be caused by poor evaluation design or implementation. Carefully selecting the methodology, hiring a quality evaluator, and carrying out ex-ante due diligence on the quality of and access to the necessary data can help reduce this risk.¹³
- *Macroeconomic risks*—Risks that result from the adverse movement in key macroeconomic indicators, such as inflation, exchange rates, and interest rates that impact the ability of the project to operate at normal parameters and generate the cash flows needed to pay the investors and lenders. This risk is particularly relevant for impact bonds in developing countries, where investors are typically investing in hard currency (USD, EUR, etc.), whereas the implementation costs and sometimes also the outcomes payments are in local currency.

Some ways outcome payers can help reduce investor risk:

- Tie payments to outcome targets that are highly likely to be achieved
- Provide guarantees of client referral numbers

- Use evaluation methods with greater certainty and simplicity (e.g., historic baselines instead of experimental evaluations)
- Include break points in contracts to allow investors to exit in certain circumstances and
- Index outcome payments to inflation or to USD.

In some impact bonds, service providers may take on some financial risk, in addition to ubiquitous reputational risk, to ensure there are incentives to maximize both social and financial outcomes. Examples of how financial risk may be allocated to service providers:

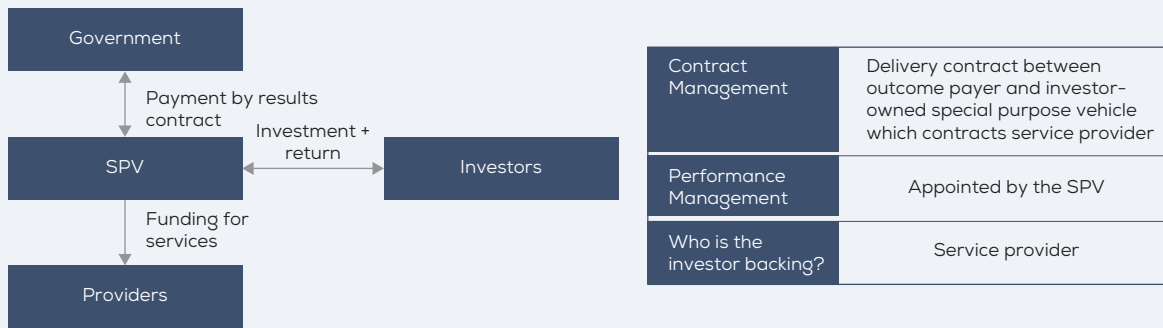
- Align some service delivery payments to outcomes, such as deferred service fees, so that a low level of achievement will not give rise to payments that cover the entire cost of delivering the service;
- Include performance-incentive payments for overachievement in delivering outcomes; and
- Require service delivery organizations to have skin in the game and co-invest in the project.

The World Bank Group has an array of instruments that can be offered to impact bond projects to help mitigate project risks. Examples of how the World Bank Group could mitigate risks include:

- Offer political risk insurance and credit enhancements through Multilateral Investment Guarantee Agency (MIGA);
- Co-finance projects with private investors to reduce political risks through the so-called halo effect resulting from World Bank participation;
- Offer technical assistance and expert advisory services to ensure a technically robust design of intervention models and impact evaluations, and

¹³ Savell, Louise and Lucy Heady, “Evaluating Impact Bonds: Balancing Evidence and Risk,” Social Finance and the Children’s Investment Fund Foundation (CIFF), September, 2016.

Figure 4. Contract with Investor-owned SPV



- Blend different sources of World-Bank funding to make projects bankable that do not immediately offer a commercially viable risk-adjusted return.

Operational and Contractual Arrangements

The structure for an impact bond investment may have important implications for risks, costs, and operational complexity. Figures 3, 4 and 5 show the typologies¹⁴ of three common ways impact bonds could be structured, with the caveat that there is much nuance within each deal and no one size fits all. These different management structures may have important implications for administrative costs of the impact bond, including closing costs (such as legal fees), and project monitoring and supervision costs (such as the appointment of a third party to manage performance).

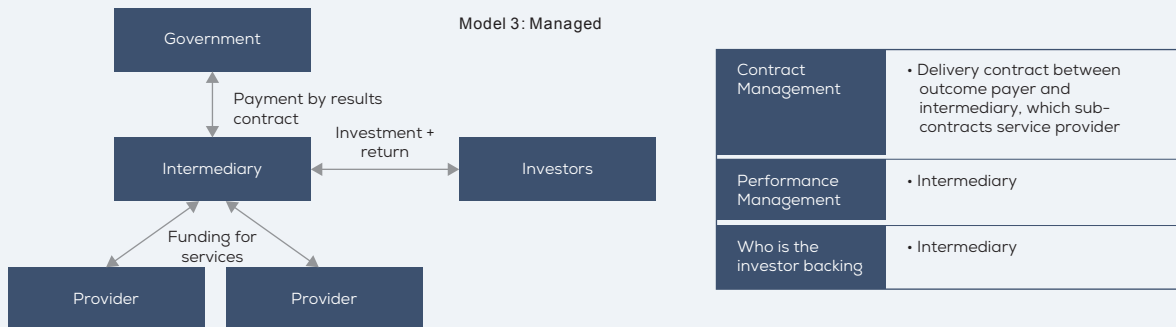
Under the “direct model” outlined in Figure 3, the investor provides financing directly to the service

provider, which is similar to making a working capital loan directly to a social enterprise. The direct model is likely the simplest and most cost effective for investors; it may place additional risk on the service provider, however, and typically would give investors less control and oversight. An example of the direct model is the “sweet dream” impact bond in Saskatchewan, Canada, which funds safe accommodation and support for at-risk young single mothers to continue with their education or participate in work-preparation activities.

In the second model, an investor-controlled special purpose vehicle (SPV) contracts with the outcome payer. The SPV holds the contract with the government and sub-contracts with service providers. The model may offer greater transparency due to the segregated structure and enhanced ability to allocate risks more effectively among the different parties. However, the creation of an SPV may entail additional costs for the project, particularly in certain jurisdictions, as well as additional costs related to the appointment of third parties to manage performance.

14 “Choosing Social Impact Bonds: A Practitioner’s Guide,” Bridges Impact+.

Figure 5. Contract with Intermediary or Prime Contractor



In the third model, a prime contractor, sometimes called an intermediary, contracts with the outcome payer, and oversees the service provider and the reporting to investors. In this model, the investors are backing the intermediary or prime contractor over the service provider and would need to assess the capability of the intermediary in their due diligence process. An example of an impact bond with a prime contractor is the New York City Rikers Island Impact Bond, where Manpower Demonstration Research Corporation (MDRC) oversaw project implementation and sub-contracted with The Osborne Association and Friends of Island Academy, which ran the Adolescent Behavioral Learning Experience (ABLE) program.

Cost of Capital

When outcome payers consider the required returns for a bankable project, they should consider how the expected financing structure might look, as well as expected investor returns and the cost of capital of the project. When assessing investor returns, given the limited amount of pricing benchmarks, outcome payers are encouraged to carry out market soundings and consultations with investors, intermediaries and financial advisors to assess investor return expectations.

Most impact bonds are financed through an SPV. An SPV is a legal entity, typically an LLC or a trust, set up for the specific purpose of the project. The SPV serves as the project company, allowing for the project cash flow to serve as the principal form of lender security. This structure differs from a corporate loan, where lenders and investors would typically have recourse to the project implementers' balance sheets if the project underperforms.

Traditionally, the cost of capital represents the weighted average cost of all the financial resources invested in the project, calculated as the weighted average cost of capital (WACC). WACC is calculated by adding together the costs of all the capital components (e.g., equity, debt) multiplied by their proportional weights. WACC is thus the weighted average of the costs of these sources of financing. Although the cost of debt may be readily established from local or foreign debt markets, the cost of equity to the impact bond SPV can be established using the capital asset pricing model (CAPM) and adding additional risk premia adjusted to the specific project profile. Although investors may often use tools such as WACC and CAPM as their discount rate when comparing different investment opportunities in their portfolios, each investor will define their investment hurdle rate. More information and investment analysis is readily accessible in standard corporate

and project finance literature, as well as in the World Bank's PPP Knowledge Hub.¹⁵

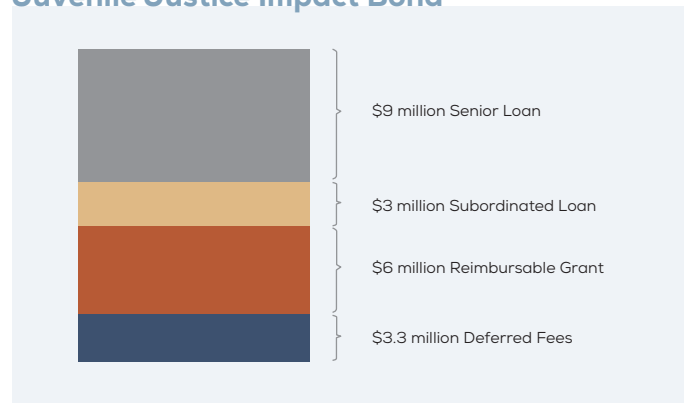
Capital Structures

The unique ability of impact bonds to offer both financial and social returns has fostered highly creative blended capital structures, where impact-first investors, such as foundations, have been willing to take higher amounts of risk and lower returns to crowd in more mainstream forms of capital to make the impact bonds commercially viable.

Many impact bonds, particularly in the United States, have blended different types and sources of capital to reduce investor risk and reduce the overall cost of capital of the project, including subordinated loans, recoverable grants, and concessional guarantees.¹⁶ These techniques to reduce risk are most common in the US impact bond market,¹⁷ where philanthropic investors have been willing to accept greater risk and lower returns to advance a project aligned with their goals. Investors should always be aware of the trade-offs in the structuring of impact bond financing, particularly the loss of flexibility if the project is required to make periodic principal and interest payments to lenders.

Below is an example of an impact bond capital stack, for the Massachusetts Juvenile Justice Impact Bond (Figure 6). In this example, several US foundations took higher-risk and lower-return positions to help crowd in more commercially oriented investors, such as Goldman Sachs.

Figure 6. Capital Stack: Massachusetts Juvenile Justice Impact Bond



15 PPP Knowledge Hub. <https://pppknowledgelab.org/>

16 Tekolste, Rebecca, Matthew Eldridge and Rayanne Hawkins, "Managing Investors' Risk in Pay for Success Projects," Urban Institute, August 2016.

17 Brookings Institute Impact Bond Database.

Structuring Investor Cash Flow

The way impact bond funding is deployed by investors can have important implications on investor returns as well. Although some investors expect to deploy their capital on day one and to receive periodic interest payments, investors in many impact bonds have allowed for the reinvestment of early outcome payments back into the project to cover on-going costs of delivery with a more flexible repayment schedule, thereby reducing the overall investment requirement. Typically, investors will only have the option to reinvest outcome payments back into the project when the impact bond includes shorter-term output metrics in addition to longer-term impact metrics. Figures 7 and 8 highlight how the SPV manages and deploys resources, and how the frequency of outcome payments and the length of the program can impact investor returns.

In Figure 7, investors provide only \$2 million in up-front investment for the impact bond, choosing to cover the remaining \$3.5 million in service delivery costs through outcomes payments, based on the assumption that the program will achieve enough outcomes to pay for the on-going operating expenses after the initial capital injection. If the program performs as expected, investors will receive a net profit of \$1.5 million and an expected IRR of 19.3 percent. Impact bonds can reinvest revenue when program payment metrics allow for early measurement and payment while the program is ongoing.

In the second scenario above in Figure 8, investors have chosen to deploy all their capital up front to cover the full cost of service delivery, which is \$5.5 million. Unlike in Figure 7, the outcome payer of this example has chosen to make payments only for longer-term outcomes. In this scenario, the net profit and total delivery costs are the same as in scenario 1 in Figure 7. However, the IRR is substantially lower (4.5 percent), because investors have chosen to deploy all their capital up front and will receive the lion's share of their repayment at the end of the program.

At the end of the day, how the financing is structured will greatly depend on investor preference—some investors may wish to deploy all capital up front and receive a payment along a pre-defined amortization schedule, while others may wish to allow for reinvestment of revenue during the project implementation. The different outcomes of these choices underscore a key difference between investor returns and outcome prices set by outcome payers.

FUTURE OUTLOOK

Impact bonds hold great promise to help countries crowd in new private capital and know-how to achieve the Sustainable Development Goals (SDGs). As the market matures, outcome payers will need to develop well-designed transactions that balance the needs for commercial viability and optimizing the use of scarce public resources.

Impact bonds are currently tailor-made or bespoke operations that do not lend themselves to standardization or liquidity. Unlike traditional bonds, these instruments are not relatively safe fixed-income products with specified returns. They yield variable returns tied to impacts and behave more like equity. Furthermore, impact bonds are unavailable to a broad range of investors and are usually on offer only as private placements for accredited and institutional investors. As restricted securities, they are not easily transferable and not subject to public reporting requirements.

For impact bonds to become a real tool to help bridge the financing gap for the SDGs, it will require new ways to crowd in institutional investors through structures that increase investor access, add credibility in investor circles, and increase transparency and liquidity.

These expected market developments hold promise for the greater scaling of impact bonds but will also drive more attention to prudent financial and capital structuring and better governance and transparency around the pricing of outcomes and investor returns. The World Bank Group has a platform that is well suited for the promotion of this promising financing model in the development space.

Figure 7. Recycling of Impact-Bond Revenue to Cover Delivery Costs – Scenario 1

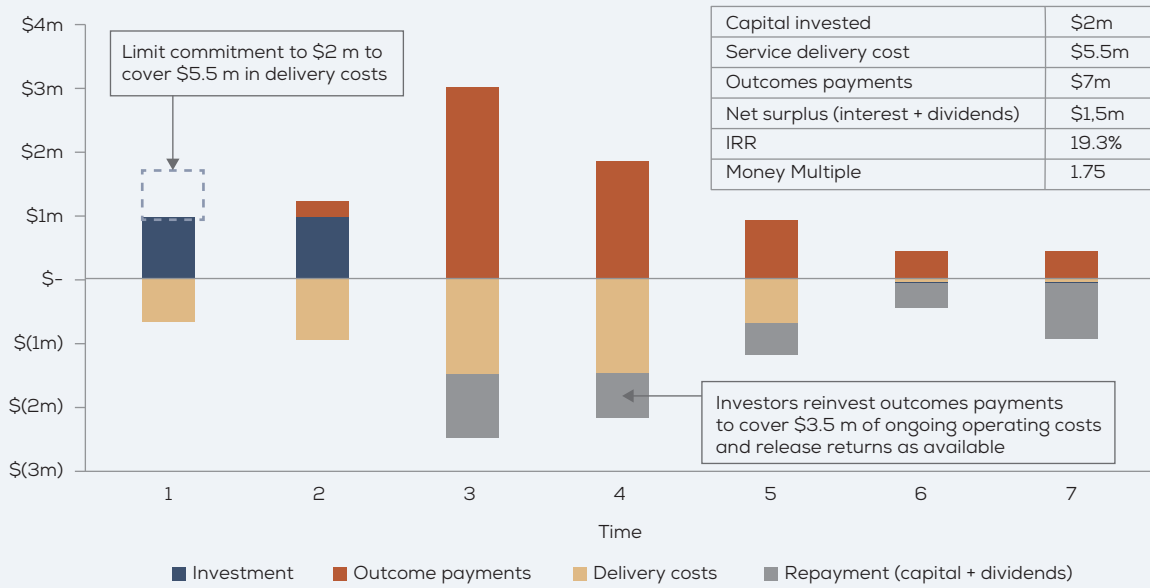
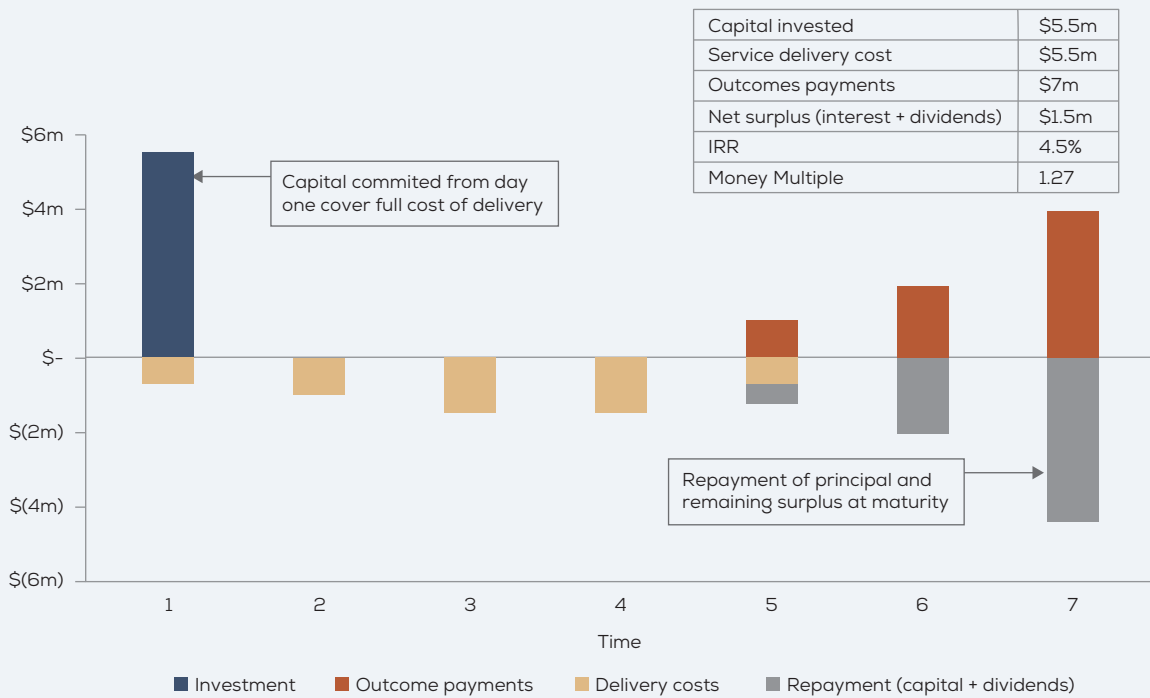


Figure 8. Investors Commit Capital For Full Cost of Delivery – Scenario 2





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