Have we 'stretched' social impact bonds too far? An empirical analysis of SIB design in practice

Christina Economy, Eleanor Carter, and Mara Airoldi

When the social impact bond (SIB) model was first introduced in 2010, there were many claims about how these projects could transform public service delivery. This paper investigates how SIB projects have been designed in relation to two original intentions: 1) shifting the focus of public service delivery to achieving impact and 2) transferring risk from the government to external investors. Qualitative content analysis of SIB projects launched until 2020 in the US and UK (n=114) is used to plot and analyze how the design of SIB projects vary across these intentions. We find that SIB design in practice has deviated from the model's original intent in several important ways: In the UK, payable outcomes are generally not subject to rigorous validation methods. In both the US and the UK, upfront capital is generally independent and at-risk, but risk mitigation strategies may limit the intended transfer of risk to investors.

Keywords: social impact bond; outcomes-based contracting; new public management

INTRODUCTION: PROMISES OF THE SIB MODEL

OECD[1] countries have a longstanding history of private sector involvement in public services, stemming from the idea that hybrid designs in service delivery are a more effective and efficient way for government to operate (Skelcher 2007). Hybridity in social service delivery typically refers to public partnerships with private and/or voluntary organizations, relying on shared resources and governance structures to reach a common goal (Borys and Jemison 1989). In the early 1980s, New Public Management (NPM) - a hybrid philosophy focused on applying private-sector

mechanisms to increase the efficiency of public services - came to the forefront of the reform agenda (Hood 1991). NPM strategies aimed to improve the quality of public services, while simultaneously saving the government money by introducing market discipline (Pollitt and Bouckaert 2004). These NPM ideals manifested as strategies to increase market competition, rely more heavily on hands-on management, and focus on explicit measurement of performance in the pursuit of efficiency and effectiveness (Ferlie et al. 1996).

Social impact bonds (SIBs) are arguably one recent permutation of NPM ideals, with their focus on performance management and reliance on outcome-based contracting mechanisms (Warner 2013; Fraser et al. 2018). Effectively a three-way partnership between government, voluntary sector providers, and private investors, SIB projects typically involve a government agency which commissions services and pays for outcomes, a service provider that delivers an intervention, and private investors who fund the intervention upfront and are repaid based on the achievement of outcomes. Despite strong ties to NPM logic, the SIB model may not align with the NPM framework in practice. Some scholars have argued that New Public Governance (NPG) (Osborne 2006) may be a more appropriate lens with which to analyse SIBs (Albertson et al. 2020; Dayson, Fraser and Lowe 2020), with the framework's emphasis on the role of multiple stakeholders and recognition that social outcomes are "emergent properties of complex systems" (Fox and Morris 2019). Carter (2019) and Albertson et al (2020) highlight the importance of relational governance as a potential key ingredient of the SIB model, while Farr (2016) found that the SIB model enabled value co-creation by elevating service user perspectives.

Despite criticisms of the model (Dowling 2017; Tse and Warner 2018; Cooper, Graham, and Himick 2016), governments around the world are experimenting with the adoption of Impact Bonds. Since 2010, over 200 SIBs have been launched worldwide to tackle many challenging social problems, including unemployment, recidivism, child and family welfare, health and wellbeing, and homelessness (INDIGO 2021). The UK and US have been the largest adopters of impact bonds, with 89 and 27 impact bond projects, respectively (Ibid). The UK's central government has been a key proponent of the SIB model and has launched a series of sizable outcome funds to stimulate the adoption of SIB projects (INDIGO 2021). The US is also a big market for SIB projects, raising over $193m in capital across 27 projects (INDIGO 2021). Motivations for pursuing SIBs across these two countries vary, with the US field typically framing SIBs as a way to test innovative programs and the UK positioning SIBs as a mechanism to fund general social services in an era of austerity (Albertson et al. 2018; Neyland 2018). Rhetoric in both countries, however, emphasizes the potential of the SIB model to shift the focus of service delivery to achieving impact for beneficiaries, while protecting taxpayer money by shifting risk of project failure to external investors (Fraser et al. 2016; Albertson et al. 2018).

Whilst keeping tally of the adoption of impact bonds is relatively straightforward, assessing the degree to which the model's promises have been realized is a far more challenging exercise - one we turn to in this paper. Are SIBs being designed in a way that would enable the model's promise -– that "investors assume the risk of a failed social intervention based on rigorous outcome evaluation" (Chiapello and Knoll 2020, 100) -– to be fulfilled? Or is this an "emperor's new

clothes" phenomenon, where the SIB model is purely a rhetorical device, which in practice does not diverge from status quo forms of service delivery (Heinrich 2018)?

Implementation science literature suggests that the SIB model could have been implemented markedly differently across different contexts (Hawe, Shiell, and Riley 2004). The same policy or idea can take a completely different shape depending on existing state structures, institutional settings, and social contexts (Chiapello and Knoll 2020). In addition, the SIB model itself is "strategically ambiguous" (Tan et al. 2019, 1), and "can be bent" in various directions "depending on the preferences of the audience" (Maier, Barbetta, and Godina 2018, 1347). Subject to heated debate, SIBs can be described as a high conflict model, and policies that are both high in conflict and high in ambiguity can create the opportunity for exploitation during implementation (Matland 1995). This potential for 'stretching' the model underscores the importance of empirically analysing how SIBs have been designed in relation to the model's key promises.

Much of the current discussion around the SIB model fails to acknowledge considerable variation across projects, even though SIBs "display a high level of heterogeneity" and may deviate from the typical SIB description in substantive ways (Chiapello and Knoll 2020, 101). For example, some scholars argue that the SIB model exploits the voluntary sector to achieve profit for commercial investors, even though we know SIB investors also include philanthropic foundations (Warner 2013; Fraser et al. 2016; Dowling 2017; Sinclair, McHugh, and Roy 2019). Much of the literature to date neglects the variation beneath the umbrella 'SIB' label: SIB projects may not embody all the characteristics for which they are criticized. On the other hand, SIBs also may not embody all the characteristics for which they are praised,

such as outcome contracts that pay for impact or repayment structures that shift risk away from the public sector (Demel 2012; McKay 2013; Fraser et al. 2016).

This paper responds to this gap by systematically mapping variation in SIB design against the espoused model, which allows us to draw conclusions on the model's ability to live up to its original promises. To this end, the paper makes two substantive contributions. Firstly, we offer a conceptual advance by deconstructing two fundamental dimensions of SIB design: the degree to which payment is linked to impact, and the independent, at-risk nature of the upfront capital. For each dimension, we offer a structured, comparative rubric (a coding frame) that operationalizes the two dimensions and allows for systematic SIB project categorization and comparison. Secondly, we make an empirical contribution by applying this coding frame to SIB projects launched from 2010-2020 in the US and the UK (n=114). After this analysis we discuss the main findings, notably that SIBs have stretched from the original intentions in important ways: 1) the less robust outcomes framework typical in many UK SIB projects calls in to question whether these projects link payments to impact, and 2) various risk mitigation strategies, in both the US and the UK, suggest that the nature of the capital is such that risk may not be fully transferred to external investors. Finally, we conclude with implications for policymakers, and suggest avenues for further research.

CONCEPTUAL FRAMEWORK: A CODING FRAME TO ANALYZE VARIATION IN SIB DESIGN

Conceptually, several authors have questioned what – if anything – marks impact bonds as novel or distinctive compared to broader trends in public

management (Heinrich 2018; Albertson et al. 2018). The ambiguous nature of the model has given rise to several competing claims on the SIB model's implications for public service delivery (Maier, Barbetta, and Godina 2018). Proponents of SIBs argue that the model shifts the focus of service delivery to measuring and achieving impact, introduces market discipline, encourages innovation, and creates multi-sector partnerships that improve service delivery (Fraser et al. 2016). Critics of the SIB model in turn argue that this approach may impede service delivery by introducing excessive profiteering, encouraging perverse incentives, and necessitating high transaction costs (McHugh et al. 2013; Warner 2013; Rowe and Stepheson 2016; Roy et al. 2018).

This paper builds on previous research by Arena et al. (2016) and Carter (2020), who identified a series of key characteristics that are distinctive to the SIB approach. According to Arena et al. (2016), first-tier characteristics of a SIB include a preventative and innovative intervention, an outcome-based contract, the presence of a commissioner, intermediary/delivery agency, and distinct investors, and the transfer of risk to investors. Importantly, the cases analysed by Arena et al. (2016) do not consistently possess these characteristics. Building on this to articulate how the SIB model compares with alternative public service funding approaches (such as grant-funding and payment-by-results), Carter (2020) lays out four components that were promised by the SIB model: payments are made for impact, up-front capital is independent (of government/service provider organizations) and at-risk, there is a high degree of performance management, and service providers have a strong and assured social intent (see Figure 1 below). Carter suggests that in practice, SIBs may have "stretched" beyond these quintessential components and hypothesizes that where

SIBs fall on the scale are "likely to have very real effects on the functioning of these SIB projects and their ability to live up to the promises allied to this commissioning approach" (2020, 183). In this paper, we extend from both Arena et al. and Carter's frameworks by centring on the functional elements of SIBs – the contractual specification and separation of stakeholder functions – that mark SIBs as distinctive to other forms of social program funding.

[INSERT FIGURE 1 HERE]

Interrogating Carter's original framework and Arena et al.'s (2016) analysis reveals a distinction between the dimensions that are *inherent* to SIB design, and dimensions that simply describe the *implications* of SIB design. The top two dimensions of Carter's framework: 'payments linked to impact' and 'independent, at-risk capital', are the inherent features of a SIB that mark the approach as distinctive both to conventional grant-making or activity contracts (since in the SIB model payment is linked to outcomes) and as different to mainstream 'payment by results' arrangements (since an independent, third-party investor provides working capital and shoulders risk). Together, these dimensions are necessary and sufficient for a project to be characterized as a social impact bond. This is articulated in the UK Government's initial enunciation of the SIB approach: "A Social Impact Bond allows the private sector to raise finance for a Payment by Results contract, whereby the private sector assumes the risk of delivering a public service and is rewarded by government based on the outcomes it achieves" (HM Government 2011). The bottom two dimensions, degree of performance management and provider's social intent, are not defining features of a SIB, although they are often articulated as desired implications of the SIB design. These two dimensions are neither necessary nor

sufficient for a project to be considered a SIB, but rather are implied consequences of the SIB model. For these reasons, in this paper we focus on the top two framework dimensions: payment linked to impact and nature of the capital. By doing so, we build on Carter's framework, moving beyond theory to operationalize and empirically explore variation in SIB design.

Payment Made for Impact

When contracting out a service, payments to providers can be linked to a number of different elements: activities (i.e., outreach to potential service users who might benefit from a skills/training program,) outputs (i.e., number of service users who completed a skills/training program), outcomes (i.e., the number of service users employed after the program), or impact (results of service users compared to a relevant counterfactual, i.e., the difference in the number of service users employed after the program and the number of service users who would have been employed otherwise) (Gertler et al. 2016; Ebrahim 2019). In typical fee-for-service contracts, service providers are paid for a mix of activities and outputs; that is, they are paid to offer a certain service, sometimes with the expectation to reach a certain number of clients, offer a certain number of courses, etc. A key argument for the SIB model is that switching the conditions of payment from activities/outputs to outcomes/impact can shift provider behaviour and improve social outcomes (Battye 2015; Edmiston and Nicholls 2018). By incentivizing outcome goal alignment across participating parties, service providers are more likely to be focused on the outcomes they are trying to achieve (Fraser et al. 2016). This outcome focus, rather than a process focus, is meant to furnish service providers with the flexibility to innovate and lead to

greater personalization of services, thus improving service delivery (Leventhal 2012; Fox and Albertson 2012; Fraser et al. 2016). Tying SIB payments to impact, based on robust evaluations, helps to ensure attribution and give confidence that government agencies are paying for meaningful improvements in the lives of intended beneficiaries (Liebman 2011; Albertson et al. 2018; Chiapello and Knoll 2020).

Rather than adopting counterfactual assessment methods (i.e., paying for formally assessed 'impact'), Lazzerini et al. (2021) note that most outcomes-based contracts use indicators measuring aspects exclusively associated with the population that received the intervention. The operationalization and data analysis pioneered in this paper illustrates the extent of deviation across the spectrum of payment types for UK and US projects. Fischer and Richter (2017, 105) argue that SIBs "tend to elect a narrow category of short-term outcomes that can be monetized readily, not a full set of potential positive benefits whose social value accrues over the lifetime of program participants." Other scholars argue that SIB projects can create a narrow scope of services by focusing on outcomes that can be measured for target populations that can be easily reached (Dowling 2017; Tse and Warner 2018; Ronicle and Smith 2020). The degree to which payments are linked to impact has implications for two key SIB promises: 1) the shift from delivering processes to achieving tangible results for intended beneficiaries, and 2) transferring risk away from the public because the government agency only pays for what works.

To operationalize the degree to which 'payments are linked to impact,' it is necessary to look at two separate, but interrelated components: the payment model and validation method. The payment model is defined as the percentage of overall contract value that is (anticipated to be) made contingent on outcomes. Outcomes are

defined as results for service users achieved once the beneficiary population uses the tangible goods/service/intervention provided by the project (Gertler et al. 2016). This component alone, however, is not enough to determine whether payments are linked to impact, or in other words, if those outcomes can be attributed to the SIB-funded intervention. The validation method sheds light on how outcomes are measured. In particular, the validation method is defined as the approach taken to assessing whether specified outcomes have been achieved. To assess the validation method, we apply the standards typical of conventional quantitative impact evaluation, as this logic of rigorous counterfactual evaluation aligns with original promises of the SIB model (Liebman 2011; Cohen 2011; Corrigan 2011; Mulgan et al. 2011; Fox and Albertson 2012; Albertson et al. 2018; Fraser et al. 2018; Chiapello and Knoll 2020).

Table 1 below offers an operationalization of both the payment model and validation method components. The payment model is scored based on the percentage of the total contract payment that is linked to outcomes, from 0% to 100%. Validation method is scored based on the perceived rigor of the approach taken to assure outcome achievement, from 'no validation method' to the use of a randomized control trial (RCT). See Appendix 1 for term definitions used in the table below.

[INSERT TABLE 1 HERE]

It is crucial to analyse these two components in parallel, as one without the other leaves the dimension defunct. For example, a contract with 100% payment on outcomes but no validation method would not provide confidence that these outcomes were achieved. On the other side, having the strongest validation method possible, such as an RCT, is not relevant if all project payments are made for outputs or activities. Table 2 below offers a composite score for the payments linked to impact

dimension, combining the payment model and validation method scores.

[INSERT TABLE 2 HERE]

Independent/At-Risk Capital

The presence of an outside investor providing the upfront capital is a key component that sets SIBs apart from more mainstream payment by results arrangements (Cohen 2011). In principle, under the SIB model the investor takes on the risk, transferring it away from both the government and provider partners (Fox and Albertson 2011; Mulgan et al. 2011; Edmiston and Nicholls 2018; Fraser et al. 2018). As such, the SIB model represents "a contractual arrangement intended to transfer the financial risks of complex and innovative services away from government commissioners and direct service providers" (FitzGerald et al. 2019, 458). By contrast, in fee-for-service arrangements the government agency funds upfront services and holds the risk of programs not working. In traditional payment by results projects, providers typically fund upfront services with their own reserves or a bank loan, thus holding the risk of program failure.

In addition to risk-transfer, one of the key underpinning arguments for the SIB model is the introduction of private sector strategies to reform public service delivery (Fraser et al. 2016; Clist and Dercon 2014). Original SIB proponents argued that placing private sector capital at risk is the element that brings service delivery innovation; when the private sector holds the risk of project failure, it can "promote more market testing" and "encourage new market entrants" in the world of public services (Fox and Albertson 2011, 400). As a result, the degree to which upfront capital comes from a private investor and is at-risk has implications for two key SIB

promises: 1) the risk of project failure is transferred away from the government and provider partners, and 2) these projects will yield innovative private sector strategies (driven by a blended profit/social motive) that make public services more effective and efficient.

To operationalize the degree to which upfront capital is independent and at-risk, we again offer two distinct but related components for analysis: the primary investor type and the repayment structure. The primary investor type is defined as the category of organizations that contribute the most money to upfront project costs; this could be the government, provider, philanthropy, social investors, or commercial investors. To reflect the original intent of bringing private-sector logics and new market entrants to public service delivery, we consider SIB projects with distinct commercial or social investors as closest to the original ambition of SIB proponents.[2] Philanthropic capital, while varied, may not represent true new market entrants nor bring the promised private-sector innovation spurred from at-risk dollars, and so will receive a lower score than social or commercial investors.

The repayment structure is defined as the risk-sharing split between the investors of upfront capital and the service provider. While there are many different kinds of project risk, for the purpose of this paper risk is defined as performance risk: i.e., the possibility of losing the upfront investment if project outcomes are not met. In typical payment-by-results arrangements, service providers hold all of the performance risk as they are paid based on outcomes and any loans must be paid back regardless of performance. In the textbook SIB model, an external investor (in theory) shifts the risk from the service provider by paying for upfront service delivery whilst repayments to investors are contingent on performance. In this arrangement, the

investor holds all the performance risk. Project partners can also design the repayment structure so that performance risk is split between the provider and investor. We illustrate two situations of this shared risk approach: in cases where the provider primarily holds the performance risk, the provider may be required to repay the principal to investors regardless of performance but returns to investors may be paid based on performance. In a case where investors primarily hold the performance risk, investors may be paid based on outcomes with providers paid for services, but payment to providers may be contingent on delivery teams meeting certain key performance indicators (KPIs). Risk can be shared between the provider and investor partners if both hold the outcomes contract, or both are repaid based on outcomes. See Appendix 1 for term definitions used for the table below.

[INSERT TABLE 3 HERE]

Together these two components reflect the source of the upfront capital and the degree to which it is 'at-risk'. It is important to analyse these two components in parallel, as individually they do not provide a complete picture. For example, even if the upfront capital comes from commercial investors, the repayment structure can affect the degree to which capital is at-risk. Investors may attach conditions to the upfront investment in order to lessen the risk, such as making service payments to providers contingent on meeting certain KPIs. Table 4 below offers a composite score for the nature of the capital, combining the primary investor and repayment structure scores.

[INSERT TABLE 4 HERE]

METHODS: QUALITATIVE CONTENT ANALYSIS OF UK AND US SIBS

To investigate the variation in design of SIB projects across these two dimensions (payment linked to impact and nature of the capital), we have employed qualitative content analysis. This involved creating systematic categories to code qualitative data on SIB projects to identify design patterns (Hsieh and Shannon 2005). The data-driven and iterative method allows us to investigate complex SIB projects by focusing on selected aspects that relate to the overall research question of variation in SIB design (Schreier 2014). As we will describe further below, we consulted two separate groups of stakeholders to support our work: expert practitioners (n=7) to verify project-level information, as well as an advisory group (n=11) to critique and validate our coding frame.[3]

At the heart of qualitative content analysis is the creation of a coding frame (Schreier 2014). To create an appropriate coding frame for analysing SIB designs, we began by breaking down the two dimensions of interest - payment linked to impact and nature of the capital - to generate operationalizable categories. These categories included each project's payment model, validation method, primary investor type, and repayment structure (see Tables 1 and 3). We then implemented a pilot phase to test the coding frame on a subset of the material (12 SIB projects)[4], and confirmed that the coding frame captured the elements of SIB project design that we aimed to analyse. This pilot phase revealed that some projects had insufficient documentary detail to confidently categorize them according to the provider of at-risk capital and/or the repayment structure. To address this, we developed consistent scoring protocols for cases that did not neatly fit in to a category (these are elaborated in the footnotes of

Table 3), which were later tested using sensitivity analysis (Appendix 2). The resulting coding frame, laid out previously in the conceptual framework, offers an operationalizable conceptualization of SIB design features that can be used to determine variation across SIB projects (and deviation from the model's original promises).

We applied this coding frame to all SIBs launched in the US and UK from 2010-2020 (n=114). This list of projects was drawn from the International Network for Data on Impact and Government Outcomes (INDIGO) impact bond database, giving us access to the most comprehensive and current information on social impact bond projects (INDIGO 2021). The US and UK SIB projects represent more than 60% of all SIBs worldwide, providing a rich set of data points for analysis. The analysis also incorporates the year of SIB launch, to investigate longitudinal trends to see whether SIBs have 'stretched' over time within and across the two countries.

By including both countries, we apply a comparative lens to see how SIBs have been designed over time and across contexts. The countries share characteristics that facilitate comparison, including a history of neo-liberal reforms to public service delivery and encouraging market solutions to social welfare problems (Esping-Andersen 1990). However, the US and UK also have key differences that might explain variation in trends, for example the US typically has more local government control, while the UK has shown more centralised political support for SIBs (Albertson et al. 2018). While this paper's analysis is not representative of all SIBs, it analyses the evolution of SIB design in two countries that have been leading the way in the adoption of the model.

For each project in our sample (n=114), we sought to answer specific questions related to the SIB's design and structure (i.e., to populate the coding frame across the payment model, verification method, primary investor type, and repayment structure). We reviewed publicly available documents, which for many projects included evaluation reports, project website pages, and press releases, to populate project details. Contracts were publicly available for review for many of the US SIBs. However, for many of the SIBs in the sample (n=68), public materials were insufficiently detailed to verify project details. To address this, we relied on a group of expert practitioners, consisting of SIB investors and fund managers (n=3), and staff from an intermediary (n=1), provider (n=2), and an outcomes fund (n=1) to verify project-level information.[5] This triangulation process helped to provide more robust project-level information whilst also bringing an opportunity to verify data collected from documentary analysis.

The methods described above are subject to a number of limitations. First, the construction of a new coding frame risks a degree of subjectivity because the findings and interpretation of the data are reliant on the construction of the underlying coding frame. We have attempted to mitigate concerns with subjectivity by offering the coding frame up for critique and validation from an advisory group made up of experts in the SIB and public management fields (n=11).[6] Second, limited data availability, particularly regarding the nature of the capital used to fund SIB projects, led to the use of assumptions and estimates in the data analysis. These assumptions have been tested with sensitivity analyses in Appendix 2. Third, the framework is narrow in nature and may fail to illuminate the full context of the SIB model's evolution. For example, this paper focuses only on two dimensions of SIB design, and

only includes projects that have been launched in the US and UK. This narrow focus may have implications on the findings, and leaves room for future research to investigate broader implications of varying SIB design.

FINDINGS: SIB DESIGN IN PRACTICE

Payment for Impact

Of the 114 projects included in our dataset for analysis, sufficient data was available to code 108 impact bonds along the 'Payment for Impact' dimension (n=81 UK projects, 27 US projects). Of these, 20 projects (19%) scored a 4 for payments made for impact, indicating a combination of majority of payments made for outcomes and a rigorous validation method (as dictated in Table 2). To score a 4, projects required a combination of at least 50% anticipated payments made on outcomes and an RCT, or 100% payment on outcomes and a validation method at least as rigorous as a quasi-experimental evaluation. 32 projects scored a 3 (30%) along this dimension, and 20 projects scored a 2 (19%). Projects that scored a 3 either had 100% payment on outcomes with a pre/post verification method or at least 50% payment for outcomes combined with quasi-experimental validation methods. Projects that scored a 2 either had 100% payment for outcomes combined with ex-post verification, or 50% or more payment on outcomes combined with a pre/post verification method. 36 projects scored a 1 (33%), signalling projects with more than half payment on outcomes (but less than 100%) with a simple ex-post verification method. None of the projects scored a 0 for the 'Payment for Impact' dimension, indicating that all projects analysed were at least partially structured so that payments were bound to the achievement of measured outcomes.

[INSERT FIGURE 2 HERE]

Comparing scores across US and UK SIB projects reveals an interesting finding: payments in US projects are, on average, more robustly and explicitly tied to impact than UK projects. Most US projects (67%, n=18) scored a 4 on the 'Payment for Impact' dimension, compared with only 2% (n=2) of UK projects. By contrast, 43% (n=35) of UK SIB projects scored a 1 on the 'Payment for Impact' dimension, compared with only 4% (n=1) of US projects (see Figure 3).

[INSERT FIGURE 3 HERE]

Breaking down the 'Payment for Impact' dimension into its subcomponents reveals that the differences between the US and UK scores are largely due to the more rigorous validation methods typical of many US projects. Figure 4 below demonstrates that the payment models of projects from both countries are relatively similar: all projects had at least 50% payment on outcomes (score 3), while in the US it is more likely that projects have 100% of payments on outcomes (score 4). More apparent differences between the two countries can be seen in Figure 5 on validation method scores - with the US consistently using more robust methods for outcome assessment compared to the UK. Of the 27 US projects analysed along this dimension, sixteen (59%) used RCTs and three (11%) used quasi-experimental evaluations to determine outcome payments. In the UK, of 81 projects analysed, no projects used RCTs (0%) and only two (2%) used quasi-experimental evaluations to determine outcome payments. Most of the UK projects relied instead on simple ex-post verification (54%) or pre/post comparisons (43%) as the outcome validation method.

The UK has regularly employed a 'rate card' within outcomes funds in an approach that enables several outcomes-based contracts to be grouped in a portfolio to be developed and supported in parallel (or in close succession) (Savell et al., 2022). A rate card – in use since 2011 - is a published, pre-specified list of multiple outcome measures and the maximum price that government outcomes payers are willing to pay for each outcome and is typically articulated at the level of the individual programme participant (see Savell et al., 2022 for further detail). Such rate cards typically operate with simple ex-post verification rather than counterfactual assessment.

[INSERT FIGURE 4 HERE]

[INSERT FIGURE 5 HERE]

In the UK, most SIB projects had all, or nearly all, of their payments tied to outcomes, but the process for validating those outcomes was not particularly robust (thus contributing to 'Payment for Impact' scores of 1 and 2 rather than 3 and 4). A robust validation method is important to provide confidence that outcomes were a) achieved, and b) can be attributed to the intervention funded by the SIB project. We use this hierarchy of evidence in the validation method to mirror the SIB promises of only paying for what works based on rigorous counterfactual evaluation (Liebman 2011; Cohen 2011; Corrigan 2011; Mulgan et al. 2011; Fox and Albertson 2012; Albertson et al. 2018; Fraser et al. 2018; Chiapello and Knoll 2020). In 2010, the first ever SIB project launched in the UK (and in the world) used a quasi-experimental evaluation to make 100% of project payments based on outcomes. As demonstrated in Figure 6, this standard of payments linked to impact largely went unmatched in subsequent projects. Increasingly, payments are made based on pre/post comparisons

or simple ex-post verification, providing far less certainty that the public is paying for outcomes that could be attributed to the SIB-funded intervention.

[INSERT FIGURE 6 HERE]

In the US, most SIB projects have all, or nearly all, of their payments tied to outcomes paired with a rigorous validation method to ensure attribution. Over time, the commitment to counterfactual assessment for impact has remained generally consistent (see Figure 7), with more than half of the analysed projects relying on RCTs to trigger outcome payments. However, in the last few years there has been some US experimentation with SIB projects that have less robust validation methods (associated with lower payment for impact scores).

[INSERT FIGURE 7 HERE]

Nature of the Capital

Of the 114 projects included in our dataset for analysis, sufficient data was available to code 103 projects along the 'Nature of Capital' dimension (n=81 UK projects, 22 US projects). Of these projects, 70 projects (68%) scored a 4, indicating that either a) the primary providers of upfront capital are social or commercial investors and there is limited risk to the service provider in the repayment structure, or b) the primary provider of upfront capital is philanthropy and there is no risk to the service provider in the repayment structure. 28 projects scored a 3 (27%) along this dimension, 3 projects scored a 2 (3%), 1 project scored a 1 (1%), and 1 project scored a 0 (1%).[7] Projects that scored a 3 either had primarily social or commercial investors and split risk with the provider, or a different primary investor type and limited risk sharing with the provider. Projects that scored a 2 had at least some risk-sharing with the provider in the repayment structure, combined with a variety of investor types.

The project that scored a 1 was primarily financed by provider organizations, and the project's service provider shared in the performance risk. The project that scored a zero was financed by the government partner, meaning the government was the sole provider of upfront capital. In this case, the upfront capital was not independent of the government partner, who held all the performance-based financial risk.

[INSERT FIGURE 8 HERE]

Comparing scores across US and UK SIB projects reveals similar score patterns: in both countries, most projects score 4 on the 'Nature of Capital' dimension (see Figure 9). SIB projects in the UK are more likely to score a 4 on this dimension (72%) compared to projects in the US (55%). Conversely, proportionally more US projects scored a 3 (36%) on this dimension than UK projects (25%). However, trends across the two countries are similar, with nearly all projects in both countries scoring either a 3 or 4 along the 'Nature of the Capital' dimension.

[INSERT FIGURE 9 HERE]

When we breakdown the dimension into investor type and repayment structure, we can see that similar scores for the 'Nature of the Capital' result from varying subcomponents. In more than 90% of the UK projects, the primary investor is classified as a social investor[8] (see Figure 10). In the US, however, primary investors are split between philanthropy (52%) and commercial investors (44%). Turning to the repayment structure scores (Figure 11), we see that UK investors are more likely to share risk with provider partners. In the US, 36% of projects completely protected providers from performance risk, compared to just 1% of projects in the UK.

[INSERT FIGURE 10 HERE]

[INSERT FIGURE 11 HERE]

Most SIB projects in the UK involve social investors as the primary source of upfront capital, combined with at least some risk-sharing with providers in the repayment structure. In most cases, investors could withhold payments if service providers failed to meet certain key performance indicators, but otherwise providers were paid based on services delivered rather than outcomes. In these cases, most of the financial risk of poor performance is held by social investors, meaning that the nature of the capital is independent and at-risk (score 4). In other cases, risk-sharing with the service provider was more explicit, and both the investor and service provider were paid based on performance. Projects structured this way received a score of 3 on the 'Nature of Capital' dimension. Over time, this structure has remained consistently used and in recent years, most UK projects have scored a 4 on the 'Nature of Capital' dimension (see Figure 12).

[INSERT FIGURE 12 HERE]

In the US, most SIB projects incorporate partial (low) or no risk-sharing with service providers in the repayment structure. A few projects, those that scored a 2, did have performance risk shared between investors and the service provider (in the form of deferred fees), but in most projects service providers are paid regardless of performance. The primary investors in US projects were split between philanthropy and commercial investors, and nearly all cases involved philanthropy. Typically, philanthropic capital serves as a junior lender or guarantor. In our analysis we designate philanthropy as the 'primary' investor when philanthropic organizations contributed more investment dollars (in aggregate) than commercial investors. In these cases, nearly all financial risk of poor performance was held by philanthropy, contributing to lower 'Nature of Capital' scores. (As mentioned, there was an original

SIB logic of putting new private capital at risk to reform public services. Philanthropic sources of capital are not typically new entrants to the funding of social programs and are likely to have very different risk-related logics then private investors). Over time, the 'Nature of Capital' dimension for US projects has remained generally consistent other than a relatively larger philanthropic presence in the years 2014-2015 (see Figure 13). Commercial investors backed by philanthropic organizations have continued to be the primary investors in US SIB projects, with limited risk sharing with the service provider.

[INSERT FIGURE 13 HERE]

DISCUSSION: HAVE WE STRETCHED SIBS TOO FAR?

Have SIBs stretched beyond their original articulation and intentions? Are they much different from status quo contracting arrangements? Looking at how closely payments are tied to impact, a quintessential promise of the SIB model, we see two different stories across the UK and the US. In the UK, project payments are largely made for outcomes instead of outputs or activities, but these outcomes are typically not subject to rigorous validation methods. This calls into question whether SIB projects are making payments for outcomes that can be attributed to SIB-funded interventions. The general absence of counterfactual assessment methods in UK payment models raises questions as to whether payments are consistently associated with the achievement of 'impact'. This insight is relevant for public managers designing SIB projects who want to avoid paying for projects that are not meaningfully improving lives of service users as intended. For example, in the 10 Innovation Fund SIBs, investors were repaid for the payable outcomes despite a

subsequent evaluation demonstrating that the projects were not successful in helping young people engage in education or employment compared to a control group (Salis, Wishart, and McKay 2018). In the US, on the other hand, SIB projects typically incorporate robust evaluations that serve to validate outcomes before payments are made. This might suggest that the US SIB model has been better positioned to shift the status quo of service delivery to incentivize and pay for project impact. On average, SIB projects in the US are much larger than those in the UK (in dollars spent and beneficiaries served) (INDIGO 2021), which may make it easier to fund and run experimental or quasi-experimental evaluations alongside SIB projects (Lazzerini et al. 2021).

Analysing the nature of the capital used to fund SIB projects also highlights two different approaches across the two countries. In the UK, typically social investors have served as the primary provider of upfront capital, but often rely on a risk-sharing agreement with the provider that is included in the repayment structure. In the US, there is typically less risk-sharing with the provider, but commercial investors are often backed by philanthropic dollars to mitigate risk. In both contexts, projects score highly on the 'nature of the capital', signalling that upfront capital is generally both independent and at-risk. However, investors in SIB projects have relied on different risk mitigation strategies that indicate these arrangements fall short of a full transfer of risk away from the government and provider partners. Government holds performance risk in typical fee-for-service arrangements, and providers hold performance risk in traditional payment by results arrangements. By limiting the transfer of risk away from these two parties, the proposed distinctiveness of the SIB

model is diminished. To fully unpack this, it is helpful to look at the two SIB dimensions ('payment linked to impact' and 'nature of the capital') in tandem.

If payments are not linked to impact, is the upfront project capital fully at-risk? While forms of operational risk remain, risk of underperformance is mitigated if the payment schedule is heavily weighted to activities, outputs, or outcomes that aren't attributed to the intervention. In these cases, when payment is not based on impact, the government agency is effectively taking on the risk that the service does not deliver the ultimate desired social outcomes. If investors are getting paid back without real attempts at attribution, then perhaps upfront capital isn't really 'at risk' in the way the SIB model promised. Gustaffson-Wright, Massey, and Osborne (2020) found that in 48 out of 50 completed impact bonds (96%), outcomes were achieved and investors were repaid. In a study of 13 SIBs launched in five countries, including the UK but not the US, Hevenstone and von Bergen (2020, 211) found that contractual targets (i.e., payable outcomes) were never linked to evaluations; rather, payable outcomes were decided through political negotiations that had a "strong potential to inflate government costs" and result in "achievable targets" being selected. Painter (2020) reports similar findings in a study of US and UK SIBs, arguing that SIB investors are nearly always repaid by government and frequently with a higher rate than typical government borrowing (Dixon and Rosenbach 2020).

In the UK, an outcomes framework that does not rely on robust validation methods may effectively de-risk SIB projects to some extent. This less robust outcomes framework, combined with risk-sharing repayment structures with the providers, are two primary ways that SIB projects in the UK have mitigated the transfer of risk to independent investors. In the US, a stronger emphasis on

counterfactual assessment has potentially made SIB projects riskier by explicitly linking outcome payments to project impact. In this context, US projects have relied on other means to de-risk SIB investments, primarily relying on philanthropic organizations to a) serve as the primary investor of capital, b) provide junior loans that safeguard large portions of commercial investment by being the first to lose, or c) serve as guarantors in the case of underperformance to pay back commercial investments. It is important to note that these philanthropic dollars are not always structured as grants; in many cases, the philanthropies seek to recover their initial investment and, in others, are also paid a performance return. Further research may seek to further understand the role of philanthropy in the US SIB market and others.

There are various reasons that might explain the different SIB trajectories across the US and UK. The narrative of using the SIB model to test new ideas and redirect funding to 'what works' is more pronounced in the US: here rigorous validation methods are seen as a tool to build the evidence base of innovative interventions funded by the SIB model (Albertson et al. 2018). It is also possible that tax advantages for philanthropy, combined with a more robust landscape of philanthropic foundations in the US, contributed to greater participation by these actors in the SIB model (Fitzgerald and Bevan, Forthcoming). In the UK, on the other hand, central government has created many 'rate card' type outcome funds, which make payments for a set list of outcomes that are not connected to rigorous counterfactual evaluation methods. Perhaps the reduction in transaction costs achieved via this rate card model has been prioritized in the UK over the original promise that SIBs would incentivize payment for impact. Additionally, shorter-term outcome payment arrangements can enable the recycling of funds (using outcome

payments to fund project costs), rather than requiring the full project cost to be provided upfront and at-risk.

Differences in the range of investor partners may also play a role in the distinct approaches between the US and the UK. For example, Evans (2020) reported high investor diversity in the US SIB projects and low investor diversity in the UK projects. Our findings echo this claim: in the UK, a few specialist social investment fund managers have been involved in nearly all of the country's SIB projects. These specialist fund managers bring expertise in structuring and managing impact bond projects, but some commentators have raised concerns that expectations to pursue commercial, rather than concessionary returns, leads to a narrow understanding of 'investibility' (Daggers et al. 2021) and may not always be congruent with the at-risk support required in the development and delivery of outcomes contracts (Ronicle, Stanworth, and Wooldridge, Forthcoming).

Policymakers and public managers may be attracted to the SIB model for the potential to shift risk of project failure away from government and service providers and on to private investors. In both the US and the UK, however, risk mitigation strategies may limit the outright transfer of implementation risk to external investors. An outside investor, bearing the risk that the project does not perform, is perhaps one of the most distinguishing features of the SIB model (Fraser et al. 2016). If performance risk sits with the government or the service provider, the SIB is similar to status-quo commissioning approaches such as fee-for-service or payment by results. If performance risk sits with philanthropy, the arrangement may resemble a grant or program-related investment and raises questions around the need for upfront commercial investment (and the associated returns). Perhaps there is insufficient risk-

appetite for external investors (commercial or social) to take on the purported risk transfer of the SIB model without adopting some of the various risk mitigation strategies we have seen thus far. If risk-transfer is limited, and uncertainty remains around whether payments are linked to impact, it is worth questioning what value this hybrid arrangement brings to the government partner.

CONCLUSION:

This paper represents the first systematic attempt to map variation in the design of SIB projects against the espoused model, and allows us to draw conclusions on the model's ability to live up to its original promises. We offer theoretical and empirical contributions to the ongoing debate on the SIB model's impact on public service delivery. First, we operationalized an analytical framework for the two inherent dimensions of SIB design (payment linked to outcomes and nature of capital). Second, we plotted the range of different SIB configurations adopted in the US and UK to explore how SIBs have been designed in practice. We find that SIBs have indeed "stretched" from what makes them a distinctive, innovative approach for funding social programs, potentially undermining the model's potency as a tool for service delivery improvement.

We find that SIB projects in the UK, although linked to measurable outcomes, are not rigorously tied to counterfactual impact assessment, particularly in comparison to US SIB projects. We also find that upfront capital used in SIB projects from both the US and the UK typically appears to be independent and at-risk, but that various risk mitigation strategies may limit the complete risk transfer of poor project performance to private investors. Future research may extend from this analysis by

investigating the social intent of service provider organizations and the ways in which this intersects with outcome measurement and risk sharing patterns. If many of the UK service providers are charities, then perhaps the differences between the US (with a heavier reliance on philanthropic risk-taking) and the UK SIB markets are not as pronounced as they may appear. Future research might also examine how SIB projects have fulfilled other potential promises, including service innovation, market discipline, or meaningful cross-sector collaboration. Perhaps these relational, rather than contractualised, developments are what the SIB model brings to the table?

Acknowledgements:

We would like to thank the provider, investor, intermediary, and government partners who provided access to information that allowed this work. We would also like to thank Clare Fitzgerald and Alec Fraser for organizing the special issue symposium at the 2021 Social Outcomes Conference. Thanks also to Michael Bryden for proofreading the article. Dr Carter acknowledges support through the UKRI Future Leaders Fellowship (grant number MR/T040890/1). Finally, we would like to thank the field experts and Government Outcomes Lab team members who served an advisory role to help strengthen the paper's methodology and conclusions.

Disclosure statement:

No potential conflicts of interest are reported by the authors.

References:

Albertson, Kevin, Chris Fox, Chris O'Leary, and Gary Painter. 2020. "Towards a Theoretical Framework for Social Impact Bonds." *Nonprofit Policy Forum* 11(2).

Albertson, Kevin, Chris Fox, Chris O'Leary, Gary Painter, Kimberly Bailey, and Jessica Labarbera. 2018. *Payment by Results and Social Impact Bonds: Outcome-Based Payment Systems in the UK and US*. 1st ed. Bristol University Press.

Arena, M., Bengo, I., Calderini, M., & Chiodo, V. (2016). Social Impact Bonds:

Blockbuster or Flash in a Pan? International Journal of Public Administration, 39(12), 927–939. https://doi.org/10.1080/01900692.2015.1057852

Battye, Fraser. 2015. “Payment by Results in the UK: Progress to Date and Future Directions for Evaluation.” *Evaluation* 21(2):189–203. doi: 10.1177/1356389015577464.

Borys, Bryan, and David B. Jemison. 1989. “Hybrid Arrangements as Strategic Alliances: Theoretical Issues in Organizational Combinations.” *The Academy of Management Review* 14(2):234–49. doi: 10.2307/258418.

BSC. 2021. “Big Society Capital.” *Big Society Capital*. Retrieved April 11, 2021 (https://bigsocietycapital.com/).

Cabinet Office. 2012. “Launch of Big Society Capital – the World’s First Ever Social Investment Market Builder.” *GOV.UK*. Retrieved April 11, 2021 (https://www.gov.uk/government/news/launch-of-big-society-capital-the-world-s-first-ever-social-investment-market-builder).

Carter, Eleanor. 2020. “Debate: Would a Social Impact Bond by Any Other Name Smell as Sweet? Stretching the Model and Why It Might Matter.” *Public Money & Management* 40(3):183–85. doi: 10.1080/09540962.2020.1714288.

Chiapello, Eve, and Lisa Knoll. 2020. “The Welfare Conventions Approach: A Comparative Perspective on Social Impact Bonds.” *Journal of Comparative Policy Analysis: Research and Practice* 22(2):100–115. doi: 10.1080/13876988.2019.1695965.

Clist, Paul, and Stefan Dercon. 2014. “12 Principles for Payment by Results (PbR) In International Development.”

Cohen, Sir Ronald. 2011. “Harnessing Social Entrepreneurship and Investment to Bridge the Social Divide.” P. 7 in Vol. 18.

Cooper, Christine, Cameron Graham, and Darlene Himick. 2016. “Social Impact Bonds: The Securitization of the Homeless.” *Accounting, Organizations and Society* 55 (November): 63–82. https://doi.org/10.1016/j.aos.2016.10.003.

Corrigan, P. 2011. *Social Impact Bonds. A New Way to Invest in Better Healthcare.* Social Finance Ltd.

Daggers, Jess, David Floyd, and Dan Gregory. 2021. *A Snapshot of the UK Social Investment Market: 2000 to 2021 | Flip Finance*. Flip Finance.

Dayson, Chris, Alec Fraser, and Toby Lowe. 2020. “A Comparative Analysis of Social Impact Bond and Conventional Financing Approaches to Health Service Commissioning in England: The Case of Social Prescribing.” *Journal of Comparative Policy Analysis: Research and Practice* 22 (2): 153–69. https://doi.org/10.1080/13876988.2019.1643614.

Demel, Ana. 2012. “Second Thoughts on Social Impact Bonds Articles and Comments Arising from the 2012 Fall Conference: The Law & Finance of Social Enterprise.” *New York University Journal of Law and Business* 9:503–10.

Dixon, Ruth, and Franziska Rosenbach. 2020. “Is Risk-Transfer Largely Illusory?” Retrieved April 11, 2021 (/community/blogs/risk-transfer-largely-illusory/).

Dowling, Emma. 2017. “In the Wake of Austerity: Social Impact Bonds and the Financialisation of the Welfare State in Britain.” *New Political Economy* 22(3):294–310. doi: 10.1080/13563467.2017.1232709.

Ebrahim, Alnoor. 2019. *Measuring Social Change: Performance and Accountability in a Complex World*. 1 edition. Stanford, California: Stanford Business Books.

Edmiston, Daniel, and Alex Nicholls. 2018. “Social Impact Bonds: The Role of Private Capital in Outcome-Based Commissioning.” *Journal of Social Policy* 47(01):57–76. doi: 10.1017/S0047279417000125.

Esping-Andersen, Gøsta. 1990. *The Three Worlds of Welfare Capitalism*. Princeton, New Jersey: Princeton University Press.

Evans, Helen. 2020.“Variation in the Emergence and Growth of Social Impact Bond Markets in Advanced Capitalist Countries: A Comparative Study.” Presented at the Social Outcomes Conference 2020, September, University of Oxford, Government Outcomes Lab.

Farr, Michelle. 2016. “Co-production and value co-creation in outcome-based contracting in public services.” *Public Management Review* 18(5), 654–672.

Ferlie, Ewan, Lynn Ashburner, Andrew Pettigrew, and Louise Fitzgerald. 1996. *The New Public Management in Action*. Oxford University Press.

Fischer, Robert L., and Francisca García-Cobián Richter. 2017. “SROI in the Pay for Success Context: Are They at Odds?” *Evaluation and Program Planning* 64:105–9. doi: 10.1016/j.evalprogplan.2016.11.012.

FitzGerald, Clare, Eleanor Carter, Ruth Dixon, and Mara Airoldi. 2019. “Walking the Contractual Tightrope: A Transaction Cost Economics Perspective on Social Impact Bonds.” *Public Money & Management* 39(7):458–67. doi: 10.1080/09540962.2019.1583889.

Fox, Chris, and Kevin Albertson. 2011. “Payment by Results and Social Impact Bonds in the Criminal Justice Sector: New Challenges for the Concept of Evidence-Based Policy?” *Criminology & Criminal Justice* 11(5):395–413. doi: 10.1177/1748895811415580.

Fox, Chris, and Kevin Albertson. 2012. “Is Payment by Results the Most Efficient Way to Address the Challenges Faced by the Criminal Justice Sector?” *Probation Journal* 59(4):355–73. doi: 10.1177/0264550512458473.

Fox, Chris, and Stephen Morris. 2019. “Evaluating Outcome-Based Payment Programmes: Challenges for Evidence-Based Policy.” *Journal of Economic Policy Reform*: 1–17. https://doi.org/10.1080/17487870.2019.1575217.

Fraser, Alec, Stefanie Tan, Kristy Kruithof, Megan Sim, Emma Disley, Chris Giacomantonio, Mylene Lagarde, Jennifer Rubin, and Nicholas Mays. 2018. “Evaluation of the Social Impact Bond Trailblazers in Health and Social Care: Final Report.”

Fraser, Alec, Stefanie Tan, Mylene Lagarde, and Nicholas Mays. 2016. “Narratives of Promise, Narratives of Caution: A Review of the Literature on Social Impact Bonds.” *Social Policy & Administration* 52(1):4–28. doi: 10.1111/spol.12260.

Gertler, Paul J., Sebastian Martinez, Patrick Premand, Laura B. Rawlings, and Christel M. J. Vermeersch. 2016. *Impact Evaluation in Practice, Second Edition*. International Bank for Reconstruction and Development: World Bank Group.

GO Lab. 2020. “UK Government Outcomes Funds for SIBs.” *The Government Outcomes Lab*. Retrieved May 31, 2018 (/basics/outcomes-funds/).

Gustafsson-Wright, Emily, Sarah Osborne, and Meg Massey. 2020. *Are Impact Bonds Delivering Outcomes and Paying Out Returns?*

Hawe, Penelope, Alan Shiell, and Therese Riley. 2004. “Complex Interventions: How ‘out of Control’ Can a Randomised Controlled Trial Be?” *BMJ: British Medical Journal* 328(7455):1561–63.

Heinrich, Carolyn. 2018.‘“What Exactly [Is] the Public Management Emperor Now Wearing...?” Comparing SIBs and Outcomes-Based Approaches Across Different Countries and Policy Sectors’. Presented at the Social Outcomes Conference, Blavatnik School of Government, Oxford.

Hevenstone, Debra, and Matthias von Bergen. 2020. “Public–Private Partnerships in Social Impact Bonds: Facilitating Competition or Hindering Transparency?” *Public Money & Management* 40(3):205–12. doi: 10.1080/09540962.2020.1714304.

HM Government. (2011). Growing the Social Investment Market: A vision and strategy. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/61185/404970_SocialInvestmentMarket_acc.pdf

Hood, Christopher. 1991. “A Public Management for All Seasons?” *Public Administration* 69(1):3–19. doi: 10.1111/j.1467-9299.1991.tb00779.x.

Hsieh, Hsiu-Fang, and Sarah E. Shannon. 2005. “Three Approaches to Qualitative Content Analysis.” *Qualitative Health Research* 15(9):1277–88. doi: 10.1177/1049732305276687.

INDIGO. 2020. *INDIGO Data Dictionary 2020*. International Network for Data on Impact and Government Outcomes.

INDIGO. 2021. “Impact Bond Dataset.” *International Network for Data on Impact and Government Outcomes, The Government Outcomes Lab*. Retrieved March 30, 2021 (/knowledge-bank/indigo/impact-bond-dataset-v2/).

Kenton, Will. 2020. “Organisation for Economic Co-Operation and Development (OECD).” *Investopedia*. Retrieved March 30, 2021 (https://www.investopedia.com/terms/o/oecd.asp).

Lazzarini, S.G., Cabral, S., Firpo, S., and Teodorovicz, T. 2021. “Counterfactual assessment methods and outcome-based contracts: A formal approach.” Academy of Management Proceedings 2021(1): 10972. doi: 10.5465/AMBPP.2021.17

Leventhal, Rebecca. 2012. “Effecting Progress: Using Social Impact Bonds to Finance Social Services Articles and Comments Arising from the 2012 Fall

Conference: The Law & Finance of Social Enterprise." *New York University Journal of Law and Business* 9:511–34.

Liebman, Jeffrey B. 2011. *Social Impact Bonds*. Center for American Progress.

Maier, Florentine, Gian Paolo Barbetta, and Franka Godina. 2018. "Paradoxes of Social Impact Bonds." *Social Policy & Administration* 52(7):1332–53. doi: 10.1111/spol.12343.

Matland, Richard. 1995. "Synthesizing the Implementation Literature: The Ambiguity-Conflict Model of Policy Implementation." *Journal of Public Administration Research and Theory*. doi: 10.1093/oxfordjournals.jpart.a037242.

McHugh, Neil, Stephen Sinclair, Michael Roy, Leslie Huckfield, and Cam Donaldson. 2013. "Social Impact Bonds: A Wolf in Sheep's Clothing?" *Journal of Poverty and Social Justice* 21(3):247–57. doi: 10.1332/204674313X13812372137921.

McKay, Kyle. 2013. "Debunking the Myths Behind Social Impact Bond Speculation." *Stanford Social Innovation Review*.

Mulgan, Geoff, Neil Reeder, Mhairi Aylott, and Luke Bo'sher. 2011. *Social Impact Investment: The Challenge and Opportunity of Social Impact Bonds*. London: Young Foundation.

Neyland, Daniel. 2018. "On the Transformation of Children At-Risk into an Investment Proposition: A Study of Social Impact Bonds as an Anti-Market Device." *The Sociological Review* 66(3):492–510. doi: 10.1177/0038026117744415.

Osborne, Stephen P. 2006. "The New Public Governance?" Public Management Review 8 (3): 377–87. https://doi.org/10.1080/14719030600853022.

Painter, Gary. 2020."Are Social Impact Bonds an Innovation in Finance or Do They Help Finance Social Innovation?" Presented at the Social Outcomes Conference 2020, September, University of Oxford, Government Outcomes Lab.

Pollitt, Christopher, and Geert Bouckaert. 2004. *Public Management Reform: A Comparative Analysis*. 2 edition. Oxford; New York: OUP Oxford.

Ronicle, James, and Kate Smith. 2020. “Youth Engagement Fund Evaluation.” UK *Department for Digital, Culture, Media, and Sport*.

Ronicle, James, Neil Stanworth, and Rachel Wooldridge. Forthcoming. *Commissioning Better Outcomes Evaluation 3rd update report*. Ecorys.

Rowe, Rachel, and Niamh Stephenson. 2016. “Speculating on Health: Public Health Meets Finance in ‘Health Impact Bonds.’” *Sociology of Health & Illness* 38(8):1203–16. doi: 10.1111/1467-9566.12450.

Roy, Michael, Neil McHugh, and Stephen Sinclair. 2018. “A Critical Reflection on Social Impact Bonds.” *Stanford Social Innovation Review*.

Salis, Sergio, Robert Wishart, and Stephen McKay. 2018. *Evaluation of the Innovation Fund Pilot: Quantitative Assessment of Impact and Social Return on Investment*. National Centre for Social Research: Department for Work and Pensions.

Savell, L., Carter, E., Airoldi, M., FitzGerald, C., Tan, S., Outes Velarde, J., Macdonald., R. Forthcoming, Understanding Outcomes Funds.

Schreier, Margrit. 2014. “Qualitative Content Analysis.” in *The SAGE Handbook of Qualitative Data Analysis*. 1 Oliver’s Yard, 55 City Road, London EC1Y 1SP United Kingdom: SAGE Publications Ltd.

Sinclair, Stephen, Neil McHugh, and Michael J. Roy. 2019. “Social Innovation, Financialisation and Commodification: A Critique of Social Impact Bonds.” *Journal of Economic Policy Reform* 0(0):1–17. doi: 10.1080/17487870.2019.1571415.

Skelcher, Chris. 2007. “Public–Private Partnerships and Hybridity.” in *The Oxford Handbook of Public Management*.

Tan, Stefanie, Alec Fraser, Neil McHugh, and Mildred Warner. 2019. “Widening Perspectives on Social Impact Bonds.” *Journal of Economic Policy Reform* 0(0):1–10. doi: 10.1080/17487870.2019.1568249.

Trelstad, Brian. 2009. *The Nature and Type of “Social Investors”*. Acumen Fund.

Tse, Allison E., and Mildred E. Warner. 2018. “The Razor’s Edge: Social Impact Bonds and the Financialization of Early Childhood Services.” *Journal of Urban Affairs* 0(0):1–17. doi: 10.1080/07352166.2018.1465347.

Warner, Mildred. 2013. “Private Finance for Public Goods: Social Impact Bonds.” *Journal of Economic Policy Reform* 16. doi: 10.1080/17487870.2013.835727.

Appendices

Appendix 1: Coding frame definitions

Term	Definition
Payment model	The percentage of contract payments that are made based on outcomes. Options: 0% payment on outcomes; Less than 50% (but more than 0%) payment on outcomes; 50% or more (but less than 100%) payment on outcomes; 100% payment on outcomes
Outcome	Results of service users achieved once the beneficiary population uses the tangible goods/service/intervention provided by the project (Gertler et al. 2016:34). Outcomes are not directly under the control of a program-implementing agency (Ibid:330)
0% payment on outcomes	None of the contract payments are made for outcomes
Less than half (but more than 0%) payment on outcomes	Less than half, but more than 0%, of the contract payments are made for outcomes
More than half (but less than 100%) payment on outcomes	More than half, but less than 100%, of the contract payments are made for outcomes
100% payment on outcomes	All of the contract payments (100%) are made for outcomes
Validation method	The approach taken to assessing whether the specified outcomes have been achieved and the basis on which 'outcome payments' will be made. Options: Randomized Control Trial; Quasi-experimental study; Historical comparison/Pre-Post analysis; Simple ex-post verification; No validation method
No validation method	There is no approach taken to assess whether specified outcomes have been achieved
Simple ex-post verification	An approach that assesses whether program beneficiaries have achieved outcomes after the fact, without measuring changes over time or using a comparison group
Pre/post analysis or historical comparison	An approach that tracks changes in outcomes for program beneficiaries over time, using measurements before and after the program or policy is implemented (Gertler et al. 2016:326). Before measurements are either from program participants themselves (pre/post) or an earlier group (historical comparison)
Quasi-experimental study	Impact evaluation methods (i.e., that make a causal link between a program and set of outcomes) that use a counterfactual (i.e., estimate of what the outcome would have been for program participants if they had not participated) but are not based on randomized assignment of the intervention (Gertler et al. 2016).

Randomized control trial	Impact evaluation method whereby every eligible individual or unit has a probability of being selected for treatment by a program. With a sufficiently large number of units, ensures equivalence in both observed and unobserved characteristics between the treatment group and the comparison group, thereby ruling out selection bias. Considered the most robust method for estimating counterfactuals and is often referred to as the gold standard of impact evaluation (Gertler et al. 2016:332).
Primary investor type	The category of organization that contributed the most money to upfront project costs. Options: Government; Provider; Philanthropy; Social Investor; Commercial Investor
Government	A local, state, or national agency through which a political unit exercises authority and performs functions.
Provider	An organization that has been contracted as part of the project to deliver the goods/services/intervention to intended beneficiaries
Philanthropy	An organization or individual that provides money to address social issues, and whose primary mission is to maximize social returns (Trelstad 2009).
Social Investor	An organization or individual that provides upfront money for a project, and whose primary mission is blended - to achieve social impact and a financial return (Trelstad 2009).
Commercial Investor	An organization or individual that provides upfront money for a project, and whose primary mission is to maximize financial return (Trelstad 2009).
Repayment Structure	A description of how the performance risk is shared between the investors of upfront capital and the service provider. Options: Provider holds all performance risk; Provider primarily holds performance risk; Provider and investor split performance risk; Investor primarily holds performance risk; Investor holds all performance risk
Performance risk	The possibility of losing upfront capital investment if payable project outcomes are not met
Provider holds all performance risk	Investors are paid principal plus return regardless of performance, and provider is paid based on outcomes
Provider primarily holds performance risk	Investor is paid back the principal regardless but returns vary by performance. The provider is paid based on outcomes
Provider and investor split performance risk	Both investor and provider groups are paid based on outcomes
Investor primarily holds performance risk	Investor are paid based on outcomes, but can withhold payment from the provider based on meeting certain key performance indicators

Investor holds all performance risk	Investor is paid based on outcomes, and the provider is paid regardless of outcome performance

Appendix 2: Sensitivity analysis

	Nature of Capital Score (% of Projects)					**Total # of Projects**
	0	**1**	**2**	**3**	**4**	
	ORIGINAL VALUES (IN PAPER)					
UK	1%	1%	1%	25%	72%	81
US	0%	0%	9%	36%	55%	22
Totals	1%	1%	3%	27%	68%	103
	SENSITIVITY ANALYSIS 1: FULLY VERIFIED REPAYMENT STRUCTURE					
UK	0%	0%	7%	21%	71%	14
US	0%	0%	10%	33%	57%	21
Totals	0%	0%	9%	29%	63%	35
	SENSITIVITY ANALYSIS 2: DEFAULT LOWER FOR PRIMARY INVESTOR OF CAPITAL					
UK	1%	6%	0%	28%	64%	81
US	5%	0%	9%	45%	41%	22
Totals	2%	5%	2%	32%	59%	103

Sensitivity analysis 1: In many cases in the UK the specific details of the repayment structure between investors and provider partners are treated as commercially sensitive and are unavailable. However, for many projects, there are indications of whether providers shared in performance risk, by either holding the outcomes contract or contributing some of the upfront capital (or both). For the purposes of this paper, in cases where the repayment structure was unable to be verified, projects that had evidence of provider risk share scored a 2 and projects that did not have evidence of provider risk share scored a 3. The results of this analysis are reflected in the 'Original Values' section of the chart above. To test these assumptions, Sensitivity Analysis 1 shows the results when only coding projects that have been fully verified in their repayment structure. The resulting proportions are similar across the scores.

Sensitivity analysis 2: If the data is unclear on how much upfront capital different stakeholder groups contributed, projects were scored with the highest of the contributing types (for example, if both philanthropy and social investors provided upfront investment but with no detail on the proportion of contributions, the project would score a 3 along primary investor type). The results of this analysis are reflected in the 'Original Values' section of the chart above. To test these assumptions, Sensitivity Analysis 2 shows the results when projects are scored according to the lowest of the contributing types (for example, if both philanthropy and social investors provided upfront investment but with no detail on what quantities, the project would score a 2 along primary investor type). The resulting score proportions

remain relatively similar, although more projects would have scored a 3 rather than a 4 for nature of the capital if we had defaulted to the lower score for primary investor of capital.

NOTES

[1] OECD stands for the Organization for Economic Cooperation and Development, a group of 37 countries that are typically democratic and support free-market economies (Kenton 2020).

[2] We have separated commercial and social investors to get a more accurate picture of the investor types across US and UK SIB projects. Distinguishing types of investors has relevance for questions around new market entrants, incorporation of private-sector logics, and the potential to scale the SIB model. Scores for 'primary investor type' reflect this distinction, with commercial investors scoring higher. However, in composite 'Nature of the capital' scores, projects with either social or commercial investors are scored identically. This is because both commercial and social investors represent 'independent' capital.

[3] One individual was included as both an expert practitioner and in the advisory group.

[4] The 12 projects included in the pilot phase spanned geography, time, and outcomes funds. These included: 2010 Peterborough, 2012 Innovation Fund Teens & Toddlers, 2013 Essex, 2013 New York City, 2014 Massachusetts Juvenile Justice, 2015 Fair Chance Fund Fusion Housing, 2015 Youth Engagement Fund Sheffield, 2016 Commissioning Better Outcomes (CBO) Fund West London Zone, 2016 South Carolina, 2017 Oklahoma, 2018 CBO Surrey SIB, and the 2018 Jefferson County.

[5] The group of expert practitioners have worked on or been connected to a large share of the SIB projects included in this analysis. Individually, for the projects with which they had familiarity, members of this group were able to verify our findings as well as provide us with project-specific details to help populate instances of missing data.

[6] The authors worked through the coding frame step-by-step with an advisory group of SIB academics and practitioners (n=11), incorporating their critiques and suggestions and securing validation of the coding frame construction. As a result of this process, we edited the payment model scores to range from 0-3 instead of 0-4, removing a score for exactly half of payments made for outcomes (which signalled a degree of precision in the data that we didn't have). We discussed how practitioners might interpret thresholds between classifications, and whether the same projects might be classified in the same way by different parties to the deal. We also reached consensus that for the "payment linked to impact" composite score, the strength of the validation method should weigh comparatively more than the payment model. For the "nature of the capital" composite score, we the authors and advisory group concurred that the strength of the repayment structure should weigh comparatively more than the primary investor type.

[7] Even though only two projects scored either a 0 or 1, we retain the five-point scale (rather than condensing to a three-point scale) to a) demonstrate that nearly all projects include capital that is at least moderately at-risk, and b) to enable identification of low scoring projects with limited independent, at-risk capital.