

# **A DIAGNOSTIC FRAMEWORK FOR SOCIAL IMPACT BONDS IN EMERGING ECONOMIES**

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## *Funding*

This study was partially funded by the Economic and Social Research Council in the United Kingdom, grant number ES/M500513/1 for the project: “Social Impact Bonds in Chile”.

## *Acknowledgements*

The authors would like to thank a range of people working for Chile’s Ministry of Economy, Ministry of Social Development and Corfo, who kindly provided feedback in the development of this diagnostic framework.

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## **Abstract**

A social impact bond (SIB) is a new type of outcome-based social investment mechanism for enterprises operating in the social economy. They have grown across the developed world, yet its complexity may prevent from fulfilling their promises. This is particularly the case when SIB-pertinent regulatory frameworks, actors and social problems are ill-defined as in the case of emerging economy contexts. In this paper we ask, how can policy agents better identify, prioritize and weight social issues in the early design of a social impact bond? We tackle this issue by applying design methods in the co-development of a SIB diagnostic framework for emerging economies. This is both a conceptual and an actionable artefact. As a conceptual artefact, it provides a holistic picture of the contextual circumstances influencing the emergence of a SIB. As a policy tool, it allows policy agents to assess and prioritize social issues and target groups and subsequently guiding policy decisions regarding investment allocation on social economy enterprises.

**Keywords:** social investment; social economy; social impact bonds; outcome-based commissioning; social enterprise; emerging economies

## **1 Problem domain**

Social economy enterprises have grown rapidly as a subject of academic and practical importance (Stephan et al. 2016). Like their commercial counterparts, however, access to finance for social entrepreneurs is particularly challenging and a source of success/failure (Nicholls, 2010). In the quest for a competitive advantage, investment is closely tied to clear financial benefits (Muñoz and Kimmitt, 2018), whilst some entrepreneurs are judicious about accessing formal funding sources, preferring a ‘bricolage’ approach to financial management (Sunley and Pinch, 2012). Prior research also demonstrates that social investors provide value-added activities when they invest in social entrepreneurs (Di Lorenzo and Scarlata, 2018) but that a focus purely on financial returns may be detrimental to social impact (Castellas et al. 2018). However, from policymakers, investors, social entrepreneurs and others, there is increasing momentum behind social investment as a vehicle for stimulating and growing social entrepreneurship.

One such emerging approach for these investments is Social Impact Bonds (SIBs). SIBs have emerged as a new policy tool, which is designed to link the outcomes of social interventions to payments with the risk, theoretically, being borne by a private investor rather than through public funds. SIBs are a type of ‘outcomes-based’ contract, which bring together investors (socially-oriented investment), commissioners (governments or foundations) and social purpose organizations (such as social enterprises); where the investment in such an enterprise is designed to facilitate their delivery of services. The fundamental idea is that investors provide upfront working capital and if/when the outcomes of the service being delivered by the social purpose organizations are met, a (government) commissioner will repay the investor at a set rate of return. Logically, therefore, if the social outcomes are not met, investors stand to lose their investment.

The number of SIB contracts has increased exponentially in recent years with 166 currently reported around the world (Brookings Institution 2019). Despite their proliferation, discussion of SIBs is somewhat polarized (Roy et al. 2018). Some proponents argue that SIBs represent a fundamental development of the social investment market and a new stream of investment for enterprises in a period of austerity (Dowling, 2017). Therefore, it can align several important goals between key stakeholders: governments, third sector organizations or social enterprises, and social investors. Lowe et al. (2018) identify, for example, that a SIB can act as a collaborative tool by bringing together a variety of, oftentimes competing, discourse to fund health enterprises.

The SIB movement is gathering a similar pace in developing economy contexts (Gustafsson-Wright et al. 2017). They are sometimes labelled “Development Impact Bonds” (DIBs), however, they share the same general characteristics as a SIB, often involving philanthropists and/or foundations as outcome funders (Sturla et al. 2018). Impact bond contracts in developed and emerging markets have focused on a variety of issues from well-being, homelessness, jobs and education. In Colombia, the first SIB focused on employment amongst the youth population whilst others have focused on girl’s education (Educate Girls in India).

Despite its many benefits, the complexity surrounding the design and implementation of SIBs may prevent them from fulfilling their promises. This is particularly troubling in emerging economies, where limited consideration has been given to design specifications and the assessment of unique local circumstances. Moreover, where regulatory frameworks, actors and social problems are normally ill-defined. This raises two central questions pertaining to social investing and policymaking in emerging economies, which are conceptual and normative in nature: How can policy agents better identify, prioritize and weight social issues in the early

design of a social impact bond? What conceptual apparatus and methods can be used to inform assessment and policy decision-making in such social economy contexts?

In this paper we tackle these questions by introducing a SIB diagnostic framework for emerging economies. Using design methodology, we identified complications and design insights deriving four diagnostic categories (i.e. issue-intervention fit, political-regulatory environment, stakeholder involvement, and social economy enterprises), central to understanding the extent of SIB feasibility. Conceptually, it provides a holistic picture of the contextual circumstances influencing the emergence of a SIB, contributing to two ongoing debates in the alternative investment sphere. In practical terms, it offers a systematic assessment of such circumstances enabling evidence-based policy decisions regarding investment allocation on social economy enterprises.

## **2 Crafting an artefact: A methodological note**

To tackle these challenges, we apply design methods in the co-development of a SIB diagnostic framework for emerging economies. The development of the framework relies on a four-stage design process. In the first stage, we engaged with policy makers in Chile before the development of the first SIBs in the country. The SIB idea travelled from the UK to Chile in 2016. It was included in the manifesto of the center-right political party during the 2017 presidential campaign, as a way of promoting social entrepreneurship and innovation in the country. After the new administration took office in March 2018, we were contacted in mid-2018 by Chile's Economic Development Agency given our previous work in the space. At the time, the SIB idea was still under consideration solely as a way of fostering social innovation and supporting the growing community of social ventures (Muñoz et al. 2016). With the entrepreneurship division as intermediary, we engaged in informal conversations with a wide variety of agents, from the Ministry of Economy, Ministry of Social Development, the

Innovation Agency, Government Lab and the Economic Development Agency. Conversations continued during 2018 at the time the SIB initiative was gaining traction in the country. Through this process, we were able to capture issues faced by policy agents as they emerged in the process, whilst reflecting on complications and critical areas requiring assessment.

Using evidence from previous research projects in the country, we were able to comment on the development process and make recommendations on how this tool can be eventually used to address some the challenges facing the social industry. As the SIB team was moving to the assessment of potential intervention areas, we were asked, e.g.

“How can we know what is the best place for a SIB? How can we know whether a SIB can bring together our investment priorities with the vulnerability priorities defined by the Ministry of Social Development?” [Head of Strategy, Economic Development Agency]

In response to these questions, we returned to the complications and began to explore additional areas that may require assessment during the early stage of a SIB design. Thus, we proceeded with a review of the problematic circumstances experienced by other SIB teams in different contexts. By looking across emerging issues and evidence, we inferred four problem categories and derived a set of diagnostic dimensions using logical counterbalancing. Once the problems and complications were identified, sorted and clustered, we logically explored factors that may have opposite effects.

After devising the first prototype using early insights, we published a policy report (Kimmitt and Muñoz 2019) and created an online dissemination platform as a way of re-engaging with our policy partners. Early drafts of the report were informally shared with key stakeholders between October 2018 and January 2019, and made available to the public in April 2019. This allowed us to explore potential issues with the framework and assess its pertinence and prospective usefulness. In addition, we conducted two roundtable discussions with policymakers and 16 follow-up interviews with policymakers and practitioners between April and June 2019. Here, for example, we realized that more clarity was required in terms of

diagnostic categories and whether there were differing levels of importance or prioritization. In the following, we explore criticisms grounded in previous knowledge and practical issues derived from emergent practice and policy-making decisions. We then introduce the diagnostic framework derived and refined via counterbalancing and collaboration.

### **3 Grounded criticisms and practical issues**

The literature on SIBs has been somewhat polarized but has grown in recent years (Tan et al., 2019). On the one hand, the collaborative multi-stakeholder nature of SIB models is considered to be one of its major benefits (Arena et al, 2016; Nicholls and Tomkinson, 2015). Fraser et al. (2019) indicate that enabling this kind of collaborative culture is not only crucial for SIBs but similar types of funding arrangements and commissioning approaches. Indeed, the importance of trust and relationships in such collaborations is a common theme in this research (Carter, 2019). SIBs have been conceived as being an innovative addition and ‘entrepreneurial approach’ to the public sector (Dowling, 2017) to the extent that prior research indicates that SIB actors perform institutional work to change rules, regulations and operating culture of some public sector commissioners (Lowe et al., 2018).

However, SIBs have been the subject of substantial criticism. With the lack of empirical information regarding the emergence, operation and performance of such contracts, a lot of this criticism has been moral. For example, McHugh et al. (2013) discuss SIBs as being representative of a “neo-liberal” shift in public service delivery because of how it financializes social outcomes and generates returns for social investors. Sinclair et al. (2019) discuss this asset class view as problematic whereby service users are redefined as investable social problems. Some argue that this is the result of marketization macro-trends and a way out of the 2008 financial crisis, likely triggered by those now investing in SIBs (Arena, et al., 2016). Morley (2019) goes further by emphasizing the moral limits of markets and therefore SIBs.

Yet, evidence shows that globally SIBs seem to be failing to attract sufficient private investors without substantial additional guarantees (Warner, 2013). Given the profit incentives inherent to SIBs, for example, this instrument can potentially alter the relationship between the service provider and user in significant ways (Roy et al. 2018).

Another notable criticism of SIBs as outlined in the research to date concerns transaction costs (Fox and Albertson, 2011; Fraser et al. 2018). As SIBs are designed to fund social sector interventions (by social entrepreneurs) which the state is not willing to fund directly, there is a consensus that such investments are reserved for funding ‘innovative’ or ‘unproven’ interventions. On the practical side, they have proven too complex to design and implement given the diversity and quantity of actors involved, the presence of moving targets and elusiveness of social problems (Lowe, 2013), which Maier and Meyer (2017) argue is problematic when one considers the taxpayer interest (i.e. funding outcomes) In addition, Edmiston and Nicholls (2018) highlight the administrative burden associated with the required data collection. As a result of the latter, SIB contracts are known for the substantial development work required to be set up and are therefore characterized by extremely high transaction costs between all the key stakeholders involved. Although one argument for this development work is that eventually the key learnings can be shared across SIBs thus reducing transaction costs, it is unclear as to whether this is occurring.

Perhaps more so than in developed markets such as the UK and US, transaction costs for SIB development in emerging markets is likely to be extremely high. Transaction costs are influenced by search and information costs, bargaining costs, and enforcement costs. First, emerging markets are characterized by much reduced information on the social problems at hand. Whilst in the SIB analyzed by Lowe et al. (2018), the SIB contract was able to draw from readily available public health information, this is unlikely in emerging markets. For a SIB contract to work in an emerging market, therefore, requires more intensive data collection

methods to understand the problem that the SIB may fund. Second, bargaining costs may be high due to potential for greater legal issues in emerging markets which impact on the drawing up of contracts. Given the lack of information highlighted above and the legal frameworks of many emerging markets, drawing up appropriate contracts may be challenging, exacerbating transaction costs. Last, contractual enforcement may also be challenging for the reasons highlighted above. With extensive data collection required to ‘prove’ efficacy of an intervention, there is potential for the gaming behavior of data that has been highlighted in the literature (Lowe and Wilson, 2015). The consequence of presumed high transaction costs for SIBs in emerging markets is the need for a tool for key stakeholders to draw from and think through when diagnosing whether a service is appropriate for a SIB, and the type of information that may be needed to progress its development.

#### **4 SIBs complications**

Cutting across grounded criticisms and practical issues we identify four main complications: i. *Ill-defined social issues and beneficiaries*; ii. *Intricated regulation in the intervention space and social investment*; iii. *Scattered SIB actors* and iv. *Unfit social economy service providers (i.e. social entrepreneurs)*. In the following we discuss each of these and elaborate on the derived design insights.

*Ill-defined social issue and beneficiaries.* In setting up SIBs, the identification and prioritization of social issues (e.g. problems or needs) and target groups constitute a fundamental building block. Social problems are context-specific and complex, hence difficult to define and evolve along social interventions and other life circumstances (Kimmitt & Muñoz 2018). The delineation of an investment mechanism designed to tackle a social problem should examine the extent of social issue adequacy, or degree of fit between the social issue under consideration and the social intervention designed to tackle the issue. The risk of failing to

identify, prioritize and assess focal social issues and target groups are considerable transaction costs at best or absolute infeasibility in the worst-case scenario (Lowe et al. 2018; Roy et al. 2018). This is particularly relevant to emerging countries new to such social investment instruments or lacking ad-hoc institutional frameworks (Gustafsson-Wright et al. 2017; Sturla et al. 2018). In developing a SIB, policy agents should thus pay attention to the scope of the social problem and current and prospective solutions or social interventions. They should consider the absolute and relative significance of the problem, the quality and effectiveness of current service provision and whether innovation is required at the problem-solution intersection.

*Intricated regulation in intervention space & social investment.* The definition of the level of complexity and rigidity of the extant regulatory context is central in setting up SIBs. This applies to social investment regulation, commissioning and contracting, and the specific regulatory framework surrounding the social problem and/or social service delivery. In some countries, for example, governments are banned from repaying investors. This would require embarking in pre-emptive regulatory amendments, which will increase the time and cost of development at best or block the development of the SIB entirely. Relatedly, the political environment matters when it comes to the development of SIBs (Tse and Warner 2018). The level of alignment with broader government agendas or areas of national interest can mobilize or block support and political willingness to push the development of a SIB. In delineating this social investment mechanism agents should examine the extent of regulatory complexity and alignment with political environments. In developing a SIB, policy agents should consider the extent to which the social problem is indeed a political priority and whether innovation is required in terms of service provision. Also, the presence of entry barriers, the current and potential regulatory complexity surrounding social investment, commissioning, the social problem in question and target social groups.

*Scattered SIB actors.* Involvement and alignment of stakeholders is central in the design and development of SIBs. These include the outcome funder, investors, special purpose vehicle and related intermediaries, services providers or social economy enterprises, lawyers and impact evaluators. Issues surrounding mutual awareness and differing approaches to openness, collaboration and views on social needs can trigger tensions (Lowe et al. 2018). As with regulation, misalignment would require efforts to bring actors together during design stages to enable social capital formation and contractual agreements. This can increase the time and cost of development at best or, if unsuccessful, block the development of the SIB entirely. SIBs are costly endeavors and normally serve better in large-scale social interventions, thus the presence, pertinence and availability of social investment and investors becomes paramount. In delineating this investment mechanism, agents should examine the degree of stakeholder involvement. A prospective SIB should consider the degree of commitment and alignment across prospective stakeholders, as well the level of available investment, and intention to invest, for the target social need.

*Unfit social economy service providers (i.e. social entrepreneurs).* The capacity of service providers to not just deliver but also measure social value is central to the success of a SIB effort. This requires a enough providers capable and willing to engage in the delivery of clearly defined social outcomes. At the same time, with enough accountability capacity to capture evidence and report on the social performance of the intervention. Ignoring the “degree of fitness” of potential social economy enterprises in the design stage can jeopardize the implementation altogether or may require an industry-wide capacity building effort, which once again will increase the time and cost of development in the best of cases. In developing a SIB, policy agents should consider the extent to which the local social economy can adequately respond to the delivery and measurement of outcomes, ensuring quality and effectiveness. In

making sense of the issues and requirements outlined above, in Table 1 we provide a summary of SIB complications and design insights.

---Insert Table 1 about here---

## **5 A diagnostic framework for social impact bonds in emerging economies**

The final diagnostic framework is divided into four diagnostic categories, each of which counterbalance the complications identified above. These are: issue-intervention fit, political-regulatory environment, stakeholder involvement, and social economy enterprises. Each of these are composed by three subcategories, which also counteract the component parts of the SIB complications. Figure 1 shows the resulting visual representation of the framework.

---Insert Figure 1 about here---

Based on the feedback obtained from policy makers after the three engagement initiatives, many amendments were introduced. First, we developed a visual representation of the framework, which proved instrumental for improving its understanding and assimilation by policymakers. While doing so, we realized that diagnostic subcategories should be treated as embedded elements, because some are more central to SIB feasibility than others within the same category. In the case of *issue-intervention fit* for instance, assessing the adequacy of the service intervention only makes sense if the issue under consideration is sufficiently significant or serious. Likewise, an assessment of the need for innovation in service provision only makes sense if these two previous conditions are met. In this sense, assessment subcategories should be represented as sets of sequential criteria. Thus, in operational terms, the framework should be seen and used from the inside-out, meaning that feasibility increases as conditions are met from the center to the periphery. This is already reflected in the model proposed in Figure 1. Table 2 provides a more detailed view of the refined framework with the diagnostic categories.

---Insert Table 2 about here---

Leveraging this conceptual framework, we designed a diagnostic tool, aimed at assisting policymakers and other stakeholders interested in understanding the problem space and development challenges. The assessment questions, scoring system and procedure can be found in Appendix A.

## **6 Contributions and implications**

SIBs have emerged as a new tool for funding social entrepreneurs and other social economy organizations, growing exponentially in interest in recent years. Facing a series of complications, in this paper we offer one of the first efforts to develop a framework for SIB policy agents and practitioners for understanding where those high transaction costs may lie and therefore where a SIB may or may not be appropriate. In the following we elaborate on key conceptual contributions as well as the implications for policy and practice.

As a subject of investigation, social finance has gained significant interest in recent years (Nicholls, 2010) with research focusing on either the social investors (Di Lorenzo and Scarlata, 2018) or the entrepreneurs receiving that investment (Kimmitt et al. 2016). Through our design-oriented approach, we add to this conceptual debate by showcasing the co-construction of a pragmatic tool for investors and entrepreneurs in this space. Although prior research implies outcomes for business models in social entrepreneurship – e.g. the ethics of the arrangement and realization dichotomy discussed by Kimmitt and Muñoz (2018). We know little regarding how theory and practice intersects to design pragmatic tools for policymakers and social entrepreneurs operating in this complex space of social finance.

On the other side of the alternative investment table, our paper offers a counterbalance to the overemphasis on the upper part of the SIB model. Most of the work done on SIBs has focused on exploring its role in and implications for policy and public management, this is the processes and mechanisms within the public infrastructure for better commissioning,

delivering, monitoring and evaluating social interventions and public services more broadly. Our paper provides a broader view, paying particular attention to the implications for social economy enterprises which are ultimately instrumental for the success of a SIB effort.

In this respect, the SIB discussion has been principally focused on understanding the ‘SIB effect’ (Fraser et al. 2018) as it relates to the activities of voluntary sector and non-profit organizations. However, we are witnessing new contexts, such as in Chile, where SIBs are considered to be a new mechanism for financially supporting social entrepreneurs. This raises the question as to how SIBs or other forms of outcomes-focused financing impacts upon entrepreneurs and start-up social ventures. Indeed, further research should look at how social entrepreneurs implement and manage such forms of financing and compare with how the voluntary sector (which are often more mature organizations) resist, comply and/or manage the identified pressures and challenges of this type of finance.

In practical terms, social entrepreneurs experience challenges in accessing finance whilst investors are not always able to interpret multiple signals amidst institutional complexity (Castellas et al. 2018; Muñoz and Kimmitt, 2018). SIBs represent one of the emerging tools aimed at stimulating and garnering social enterprises (and other organizational types) into outcomes-based contracts. In emerging economies, where transaction costs may be higher, this represents new territory for policymakers, social entrepreneurs, investors and other key stakeholders.

However, like any new policy initiative, one must tread carefully regarding its widespread implementation. Such an instrument may not be appropriate depending on the nature of the social problem being explored, the extent to which outcomes may be clear and measurable and the perceived risk being experienced by state actors and/or investors. Thus, the co-development of a tool designed to diagnose the relevance and importance of a SIB to a particular issue in emerging economies is particularly important. Such a tool (Appendix A) can be used to identify

those social enterprise initiatives which are not suitable for SIB investment. Or it can be used as a sensemaking device, to identify those domains which requires additional work and exploration. Either way, it provides an important practical contribution for understanding the role of SIBs in supporting the work of social entrepreneurs in emerging economies. In Table 3 we provide illustrative evidence on how our diagnostic framework has contributed to policy-makers, along the three dimensions discussed above: assessment, identification and sensemaking.

---Insert Table 3 about here---

Moving forward we see a range of opportunities for future research. First, and inspired by our policy partners, we see opportunities for the development of a follow-up assessment tool to be used when the development of a given SIB has been agreed. Such a tool should assist policy agents in the assessment of a SIB models out the many possible models that can be adopted, or eventually allow for the formulation of an ad-hoc model, which once again will have to be drawn from the unique circumstances of the context. Second, we encourage researchers to empirically test the core dimensions and diagnostic categories. What happens to such social finance tools in contexts where transaction costs may be very high? When tested outside of the institutional context of Chile, do some factors become more pertinent than others?

In summary, there is considerable global momentum for social investment that focuses on outcomes and SIBs are at the forefront of this development with the aim of stimulating social entrepreneurship in some of the most challenging contexts. However, there is limited knowledge in emerging economies regarding where and when such contracts might be a useful source of finance. In this paper, we provide a co-created diagnostic framework for SIBs that represents both a conceptual and actionable artefact. We encourage researchers to move the debate forward by considering how their knowledge of theory and practice in this domain may enable the design of useful tools for enabling social entrepreneurship.

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## 8 Tables and Figures

**Table 1. Summary of SIB complications and design insights**

<b>Complication</b>	<b>Main issue emerging</b>	<b>Design insight</b> (A diagnostic framework should provide information on...)	<b>Supporting data and participant reflections</b>
Ill-defined social issue and beneficiaries	Unknown fit between social issue and current and prospective social interventions	...the level of significance of the social issue under consideration, the quality of current service provision and whether innovation required.	It [the report] was useful. We've been focusing on the technical aspect of the contracts and not so much on the theoretical aspect. (Policy Maker, Economic Development Agency) We had that in mind. It's something everyone mentions. You need evidence to lower the risk. And something else we haven't taken into account, according to the report, is the comparison between our social issues and the same issues in other countries. That's our biggest flaw. We've always had an internal look not an external one. (Senior Policy Maker, Ministry of Economy)
Intricated regulation in intervention space and social investment	Unknown compatibility and escalation in regulatory complexity	...the level of political willingness, how complex is the underlying regulatory framework and how restrictive or high are the extant entry barriers for the introduction of a SIB.	Yes [our perception changed] in relation to the investors. We thought of them as people who would come if there was a return and if the issue was interesting. But we should really focus on learning about their interests. We might expect social investors or philanthropic investors. Of course, they might be interested. (Senior Policy Maker, Ministry of Economy)
Scattered SIB actors	Unknown intention and capacity to engage	...the degree of commitment and alignment across prospective stakeholders, as well the level of available investment, and intention to invest, for the target social issue.	"And that's [the report] excellent. The tool was useful. We used it as baseline to learn how to evaluate social impact contracts, so see which ones are feasible and which ones aren't. But you also learn that the ecosystem develops little by little and you become more capable as you learn and it changes all the time. Eventually, we would have participated in the creation of so many contracts that we'll actually learn how to do it." (Senior Policy Maker, Ministry of Economy)
Unfit social economy service providers	Unknown quality and effectiveness	...the outcome delineation, the sufficiency of social economy service providers in the problem space and their capacity to capture and evaluate outcomes and impacts.	But the report summarizes the information, the pros and cons of this model. It helps you organize the concepts. It's good specially for people who're just beginning to hear about this. Understanding a social impact contract is not easy. It's not like other models. If you look a circular flow diagram you can understand a model. But this requires more work, especially when you have several actors, roles, functions. That's complex. It helps you structure the information (Director, Social Justice Foundation)

**Table 2. Diagnostic framework overview**

<b>Derived diagnostic category</b>	<b>Derived diagnostic subcategory</b>	<b>Description</b>	<b>How do we know about the unknowns?</b>
Issue-intervention fit	Issue significance	Level of vulnerability of the affected target groups.	Is the absolute level of vulnerability of the target group under consideration sufficiently significant in relation to international standards? Is the level of vulnerability of the target group under consideration sufficiently significant relative to other groups in the country/region/locality?
	Intervention adequacy	Quality and effectiveness of current provision of social services for target groups.	Is the current provision of social services adequate for the target groups? Is the current provision of social services satisfactory and meeting objectives?
	Intervention innovation requirements	Level and urgency of innovation required by social service provision, either in terms of approach to social service delivery or the delivery itself.	Does the social service provision / social program requires innovation? Is the social service provision sufficiently efficient?
Political-regulatory environment	Political agenda priority	Level of political willingness to address the target social problem / group and innovate in social service provision.	Is the political agenda (central or local government) aligned with the needs of the social problem or target group? Is the political agenda (central or local government) open to innovate in the target space?
	Regulatory issue complexity	Degree of complexity of the regulatory landscape underlying the social issue / target group under consideration.	Would the amount of regulatory aspects to address, immediately related to social issue / target group under consideration, constrain the development and functioning of the SIB? Are these regulatory aspects intertwined?
	Regulatory entry barriers	Level of legal, regulatory and ethical entry barriers for the development and functioning of the SIB.	Would the legal and regulatory context surrounding the social problem under consideration constrain the development of a SIB? Are there any critical ethical issues that may affect the target group if the SIB is implemented?
Stakeholder involvement	Collaborative scope	Degree of group awareness, interconnectedness and openness of prospective SIB actors*.	Do prospective SIB actors know each other? Are prospective SIB actors interested in collaborating in a wider scheme?

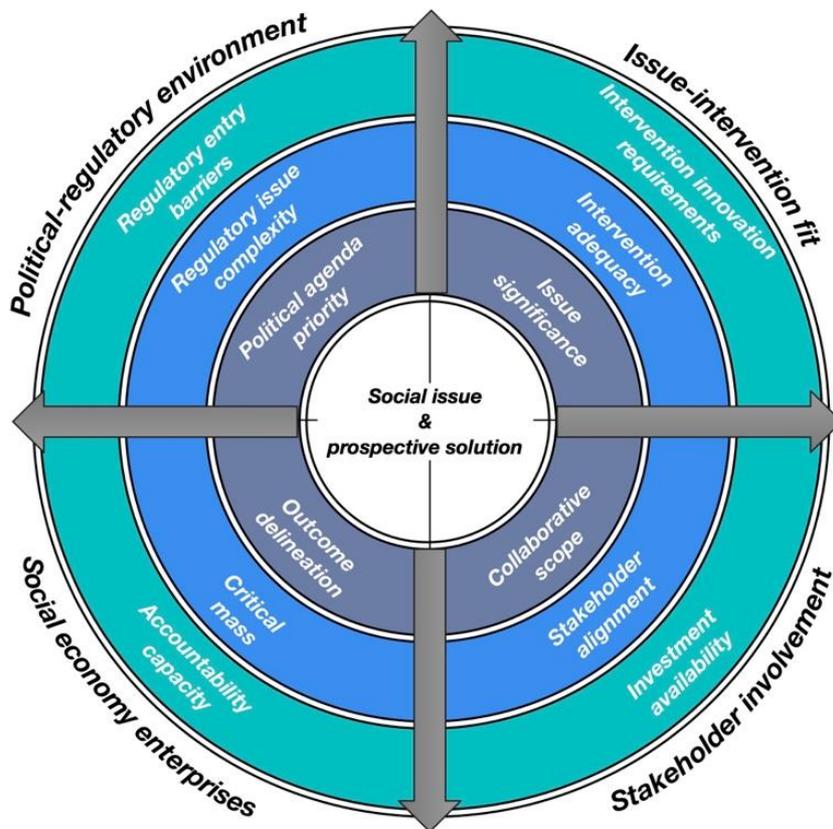
	Stakeholder alignment	Extent to which prospective SIB actors* share views on social issue, collaboration and learning.	<p>Are prospective SIB actors interested in exploring and agreeing on outcomes and ways of measuring?</p> <p>Are prospective SIB actors aligned in terms of understanding of the circumstances and complexities surrounding the social issues/target group under consideration?</p> <p>Are prospective SIB actors aligned in terms of attitude towards collaboration?</p> <p>Are prospective SIB actors aligned in terms of attitude towards learning?</p>
	Investment availability	Extent of presence, pertinence and availability of social investment and investors.	<p>Are there potential investors interested in social impact?</p> <p>Are there potential investors interested in the social issue or target group?</p> <p>Are there potential investors interested in outcome-based social investment?</p>
Social economy enterprises	Outcome delineation	Extent to which the desired outcomes for the target group are clearly defined.	Are (can) the impact outcomes (be) clearly defined?
	Critical mass	Amount of social economy enterprises operating in the issue-intervention space or potentially interested in entering the space.	Is there a sufficient number social economy enterprises operating in the problem-solution space?
	Accountability capacity	Extent to which prospective social economy enterprises are capable of measuring their impacts and assess the means through which those impact were created.	Can prospective social economy enterprises measure and report on activities, outputs, outcomes and impacts?

\* Outcome funder, investors, SPV, social enterprises, lawyers and impact evaluators

**Table 3. Diagnostic framework contribution**

<b>Dimension</b>	<b>Illustrative evidence</b>
Assessment	"It [the diagnostic framework] is a model, a structure for others, it's useful to visualize and see the concept, the idea of a social impact contract and to check whether certain idea can be converted into a SIB or not. That was excellent.....It [the diagnostic framework] gives you some dimensions and based on that one, we built our own that we use not only in the previous stages but in every stage of development. You need to do that in order to move on to the next stage because we've realized that it's a lot of work, right. Every stage, coordination and work between the ministries, legal aspects etc." [Senior Social Policymaker, Chilean Government]
Identification	"And that's [the report] excellent. The tool was useful. We used it as baseline to learn how to evaluate social impact contracts, so see which ones are feasible and which ones aren't. But you also learn that the ecosystem develops little by little and you become more capable as you learn and it changes all the time. Eventually, we would have participated in the creation of so many contracts that we'll actually learn how to do it." [Senior Policy Maker, Ministry of Economy]
Sensemaking	"You try to get information and tools from the Internet but those are isolated or too general or too complex and precise. It's hard to adapt them to the process, specially to a process here in Latin America. It's different from developed countries. Even though this initiative comes from the UK, I believe [the authors] manages to get specific information for us. That's excellent. At the same time, it's a simple yet excellent tool. The simplicity helped us because we want this to be simple. The idea is to be ready to manage more than one variable at the time. In that sense, I think their [the authors] work was inspiring. And we realized that what we wanted was right." [Policy Maker, Ministry of Social Development]

Figure 1. Visual representation of the SIBs diagnostic framework



## Appendix A. Diagnostic tool instrument

The diagnostic tool comprises 24 questions in total. These are disaggregated into two per diagnostic subcategory for a total of six per diagnostic category. Given that these components capture different facets of each of the categories, the measurement of the diagnostic categories is formative rather than reflective in nature. The resulting scale ranges from 0 to 120 points, the highest the score the more relevant the social issue and target groups are in the context of social impact bonds and a social impact bond can be an adequate vehicle to address such issue. We define three thresholds. Firstly, social issues / target groups scoring 90 points and above may be addressed with a social impact bond. Secondly, social issues / target groups scoring between 60 and 89 can potentially be addressed with a social impact bond but further examination of the issue and discussion among prospective stakeholders is required. Finally, social issues / target groups scoring less than 60 points should not be addressed with a social impact bond. In terms of its application, we recommend that sources of evidence and proxies for each of the assessment questions should be established collaboratively with stakeholders.

#	Assessment questions (degree to which...)	Scale specification
<b><i>Issue-intervention fit</i></b>		
1a	Is the absolute level of vulnerability of the target group under consideration sufficiently significant in relation to international standards?	5-item Likert scale. Degree of significance low > high, 0-5 scale.
1b	Is the level of vulnerability of the target group under consideration sufficiently significant relative to other groups in the country/region/locality?	5-item Likert scale. Degree of significance low > high, 0-5 scale.
2a	Is the current provision of social services adequate for the target groups?	5-item Likert scale. Degree of adequacy low > high with reversed scale 5-0.
2b	Is the current provision of social services satisfactory and meeting objectives?	5-item Likert scale. Degree of service satisfaction low > high with reversed scale 5-0.
3a	Does the social service provision / social program requires innovation?	5-item Likert scale. Degree of innovation requirement low > high, 0-5 scale.
3b	Is the social service provision sufficiently efficient?	5-item Likert scale. Degree of efficiency low > high with reversed scale 5-0.
<b><i>Political-regulatory environment</i></b>		
4a	Is the political agenda aligned with the needs of the social problem or target group?^	5-item Likert scale. Degree of alignment low > high, 0-5 scale.
4b	Is the political agenda open to innovate in the target space?^	5-item Likert scale. Degree of openness low > high, 0-5 scale.
5a	Would the legal and regulatory context surrounding the social problem under consideration constrain the development of a SIB?	5-item Likert scale. Degree of constrain low > high with reversed scale 5-0.
5b	Are there any critical ethical issues that may affect the target group if the SIB is implemented?	5-item Likert scale. Degree of ethical concern low > high with reversed scale 5-0.
6a	Would the amount of regulatory aspects to address, immediately related to social issue / target group under consideration, constrain the development and functioning of the SIB?	5-item Likert scale. Degree of constrain low > high with reversed scale 5-0.
6b	Are these regulatory aspects intertwined?	5-item Likert scale. Degree of significance low > high, 0-5 scale.

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<b><i>Stakeholder involvement</i></b>		
7a	Are there potential investors interested in social impact?	5-item Likert scale. Degree of interest low > high, 0-5 scale.
7b	Are there potential investors interested in tackling the social problem or supporting the target group?	5-item Likert scale. Degree of interest low > high, 0-5 scale.
8a	Are there potential investors interested in outcome-oriented social investment?	5-item Likert scale. Degree of interest low > high, 0-5 scale.
8b	Do prospective SIB actors know each other?	5-item Likert scale. Degree of awareness low > high, 0-5 scale.
9a	Are prospective SIB actors interested in collaborating in a wider social impact scheme?	5-item Likert scale. Degree of interest low > high, 0-5 scale.
9b	Are prospective SIB actors interested in exploring and agreeing on outcomes and ways of measuring?	5-item Likert scale. Degree of interest low > high, 0-5 scale.
<hr/>		
<b><i>Social economy enterprises</i></b>		
10a	Are prospective SIB actors aligned in terms of understanding of the circumstances and complexities surrounding the social issues/target group under consideration?	5-item Likert scale. Degree of alignment low > high, 0-5 scale.
10b	Are prospective SIB actors* aligned in terms of attitude towards collaboration?	5-item Likert scale. Degree of alignment low > high, 0-5 scale.
11a	Are prospective SIB actors* aligned in terms of attitude towards learning?	5-item Likert scale. Degree of significance low > high, 0-5 scale.
11b	Is there a sufficient number of social economy enterprises operating in the problem-solution space?	5-item Likert scale. Degree of adequacy low > high, 0-5 scale.
12a	Are (can) the impact outcomes (be) clearly defined?	5-item Likert scale. Degree of clarity low > high, 0-5 scale.
12b	Can prospective social economy enterprises measure and report on activities, outputs, outcomes and impacts?	5-item Likert scale. Degree of accountability capacity low > high, 0-5 scale.

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\* Outcome funder, investors, SPV, social enterprises, lawyers and impact evaluators; ^ consider central or local government as appropriate