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A Theoretical Framework for Social Impact Bonds

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Abstract

Governments in some of the world's richest nations appear to be caught in a double challenge of declining social budgets even as social needs are increasing. In this context Outcomes Based Commissioning (OBC), for example Pay for Success in the US or Payment by Results in the UK, has been suggested as one way in which "more" social services can be provided for "less" public resources. These forms of commissioning are often linked with a new financing tool for social services, referred to as 'Pay for Success Financing', or as a Social Impact Bond (SIB).

At first glance, the SIB approach appears attractive for public administrators as proponents argue it only pays for social outcomes where sufficient public benefits have been demonstrated through appropriate evaluation. Further, it supposedly provides an opportunity for investors to support mission-related projects with potential financial returns. However, to date, this approach is under-theorised and this is a limiting factor both for shaping a research and evaluation agenda around SIBs and in understanding how such instruments might contribute to the wider public service reform agenda.

In this paper we consider several theoretical frameworks that might address these limitations. To date, SIBs have often been theorised as the logical next step in the New Public Management (NPM). In theory, NPM facilitates improvement of public services through three integrating themes: markets, managers, and measurement. Several commentators view the SIB approach to delivering public services as informed by, or an extension of, New Public Management. Secondly, SIBs can be viewed as an attempt by policy makers to deal with complexity in the social world. This approach recognises that desired social outcomes are emergent properties of complex systems. It is argued that market oriented solutions are more likely to lead to more efficient delivery of social outcomes than centrally planned interventions. A third framework through which to understand SIBs is their supposed ability to improve the rate and dissemination of social innovation.

In this paper, we provide evidence on whether the SIB approach aligns with the theoretical predictions of social innovation. Using data from the Social Finance UK database, we describe SIBs along a variety of dimensions relevant to describe the process of social innovation. We focus primarily on the SIBs in the UK and US, but do provide some analysis for other SIBs worldwide. The preliminary evidence suggests that SIBs in the US do fit well into the framework of social innovation, but SIBs in the UK are more heterogeneous in their characteristics. Finally, we provide some discussion of how SIBs may fit within the framework of New Public Governance (Osborne 2006).

Introduction

Governments in some of the world's richest nations appear to be caught in a double challenge; they are faced with democratic demands to respond to increasing social needs while at the same time they face fiscal demands which would seem to emphasise the reduction of social budgets. In this context Outcomes Based Commissioning (OBC), for example Pay for Success in the US or Payment by Results in the UK, has been suggested as one way in which "more" social services can be provided for "less" public resources. These forms of commissioning are often linked with a new financing tool for social services, referred to as 'Pay for Success Financing', or as a Social Impact Bond (SIB).

A SIB is a class of OBC contract where the finance needed to make the contract work comes, not from the service provider, but by third-party investors. To date, these have usually been either social investors – investors who consider both social and financial returns – or central or local government. SIBs are also associated with a broader 'social investment' movement (discussed below). In its strategy for *Growing the Social Investment Market*, the UK Coalition Government (2010-15) identified SIBS both: as a mechanism for expanding the use of Payment by Results (HM Government 2011, paragraph 4.3); and as an investment vehicle to expand the social investment market, likened to a type of Social Independent Savings Account[1] (ibid, paragraph 5.6).

SIBs are not strictly speaking bonds (debt instruments), but rather are a class of OBC contract where the up-front finance for the contract is made available by third-party investors rather than service-providers. In this sense SIB funded provision of public services is analogous to the UK's Private Finance Initiative (PFI) funded provision of public infrastructure. However, early proponents distinguished SIBs from other forms of outcome-based payment by emphasising: their alignment of social and financial returns on investment; that service provider costs are covered by investors' up-front – in theory minimising risk transfer to smaller, third sector providers –; and the potential for SIBs to bring together groups of social investors and portfolios of interventions (Social Finance 2009).

SIBs have several distinct elements:

- A programme of actions to improve the prospects of a target group (Mulgan et al. 2010), that is to say, a group in need of public services;
- Commitments by a commissioner (to date, usually national or local government) to make payments linked to specific social outcomes achieved by the group (ibid.); and
- An investor; to date finance has tended to come from government or social investors (Ronicle et al. 2014), although some initial programs in the US had private investors and other projects had alternative financing structures (Mulgan et al. 2010, Social Impact Task Force 2014).

Early arguments for SIBs emphasised their potential to bring more private and public investment into early intervention and preventative measures, an area that, historically,

[1] An Individual Savings Account with a tax free allowance set by government to encourage individuals to save.

charitable trusts and foundations had addressed (Social Finance 2009). Social Finance (2009) gives various examples including that of £92 billion health expenditure in England; only 3.7 percent is spent on preventative interventions. In relation to mental health, £10 billion is spent on benefit payments alone, while only £2 million is spent on mental health promotion. Similarly the UK government spends almost £1.5 billion on school truancy and exclusion, but only £111 million on preventative initiatives. Politically, it is not straightforward for government to invest in preventative measures. Such costs appear on the current budget, but the benefits may well only be observed in subsequent administrations. Also, the voting public are unlikely to notice the benefit of preventive measures at all. There are few media headlines devoted to a mental health crisis that did not occur, or school exclusions which are avoided. The political model thus rewards governments which respond to social problems rather than governments which prevent such problems.

Where government planning is inefficient, so it is argued, market oriented incentives might well prove more effective. Early arguments also drew on a wider trend towards 'social investing' including interest from investors and philanthropists in combining commercial and social returns; advances in government methods for assessing the impact of public investments on human capital; widespread experience of private finance initiatives and public private partnerships; the commodification of traditionally non-marketised goods – for example carbon trading –; and experiments in health around advance market commitments (Mulgan et al. 2010).

SIBs, it was argued, would align stakeholder interests around specific social outcomes. The long-term vision was ambitious:

> *Social Impact Bonds enable foundations, social sector organisations and government to work in new ways and to form new partnerships. By aligning the interests of all parties around common social outcomes, Social Impact Bonds have the potential to address some of society's most intractable problems.* (Social Finance 2009: 4)

Thus, SIBs would supposedly enable change in four distinct ways: by unlocking an untapped flow of social finance; creating an incentive to develop the evidence base for funded interventions; creating an incentive to innovate; and changing the role of government so that its focus was on defining social priorities and bringing resources and expertise to bear (Social Finance 2009).

At first glance, the SIB approach appears attractive for public administrators as proponents argue it only pays for social outcomes where appropriate evaluation indicates there were sufficient monetised public benefits to cover the cost. Further, it supposedly provides an opportunity for investors to support mission-related projects with potential financial returns. However, to date, this approach is under-theorised and this is a limiting factor both for shaping a research and evaluation agenda around SIBs and in understanding how such instruments might contribute to the wider public service reform agenda.

In this paper we consider several theoretical frameworks that might address these limitations. To date, SIBs have often been theorised as the logical next step in the New Public Management (NPM). In theory, NPM facilitates improvement of public services through three integrating themes: markets, managers, and measurement. Several commentators (e.g. Dowling 2017) view the SIB approach to delivering public services as informed by, or an extension of, New Public Management (Hood 1991). Having identified limitations with NPM

and some other nascent theorisations of SIBs we look in more detail at a theoretical framework that motivates the use of SIBs to improve the rate and dissemination of social innovation (Liebman 2011). We test this approach through a review of SIBs launched to date, worldwide.

Theoretical discussion

Financial and policy background

In the early to mid 20th century, the governments of many of the world's developed nations were prepared to – and their citizens expected them to – intervene directly in their economies to provide public and social goods and to control directly industries where such ownership delivered improved social returns compared to private ownership. Governments, it was felt, could, and ought to, manage their economics to facilitate what we would now call inclusive growth. Part of this process involved the provision of reasonable employment terms and conditions for public sector workers.

Recently, however, many developed economies are undergoing a period of low-growth, if not economic contraction (see Kubiszewski et al. 2013; NEF 2004; Lawn 2003; and Cowen 2011). The political-economic policies supported by a growing economy, for example so-called 'Keynesian' demand management (direct intervention by government) are no longer affordable in such a stable (that is non-growing or slow-growing) economy. If improvements in public wellbeing are to be achieved, they must result from policies designed to deliver social output more effectively for less resources: "more for less" as (former Prime Minister of the UK) David Cameron (2009) has put it.

It has further been argued, (for example Friedman 1962) that, even in situations where government has the resources to intervene directly in the economy and provide social goods, it is not necessarily best placed to do so. Often government intervention may be "top down", that is planned by officials who perhaps do not understand so well as they might the complexities of the situation faced by those in need of social interventions. Thus, direct public intervention developed by central planners may fail to meet social needs adequately.

Government has responded to these implicit incentives through a range of measures designed to improve efficiency and effectiveness. Although not necessarily following an ideological framework, in response to market and social forces, social goods and services provision have evolved and developed over time into, amongst other things, the market for SIBs and OBC more generally.

New Public Management

One of the means by which the public sector sought and seeks to improve the efficiency of its provision of goods and services is through NPM (Hood 1991). NPM is both a normative statement of how public sector provision should develop, and an approach to critiquing several developments in public management over the last forty years. It is this latter use of NPM which is relevant in relation to discussions of SIBs.

NPM is a broad, almost ubiquitous, term. It is been applied to a wide set of (often contradictory) public sector reforms in a number of countries over the past four decades. Christopher Hood, in his 1991 paper that introduced the term, identified seven components to

these reforms, which in general seek to apply the incentive structures developed by business to the provision of public goods and services. These have subsequently been summarised by Ferlie (2017) as the 3Ms: markets; management; and measurement.

Perhaps the most common theoretical explanation of the emergence and use of SIBs (and, more broadly, models of OBC) has been to view them in the NPM framework. Within this framework, SIBs are often theorised as part of a move towards outcomes-based contracting and payment for performance in public services more generally (Lagarde et al. 2013; Warner 2013; Painter et al. 2018). In short, SIBs are part of a 'public sector reform' narrative that is an intrinsic part of NPM (Fraser et al. 2018).

SIBs explicitly involve two of the three Ms, namely markets and measurement. For McHugh et al. (2013), SIBs involve the marketisation of the third sector and increased involvement of private sector finance in the provision of public services; but they are also part of a much broader "rearticulation" of the relationship between markets and the state (Berndt and Wirth 2018). Edmiston and Nicholls (2017) identify SIBs (in the UK context) as being part of a wider quasi-marketisation movement. However, in contrast to other authors who identified SIBs with marketisation, Edmiston and Nicholls (2017) suggest that this may not be a simple like-for-like replacement of public by private: rather, SIBs are often used in areas of previous repeated policy failures. And while this may be the case in the UK context, in the US SIBs are much more of a bottom-up intervention where third sector organisations seek to expand their access to funding, rather than a top down attempt to increase private sector involvement in the provision of previously publicly funded services. Thus, in the US, SIBs are closer to the private financial sector reform narrative identified by Fraser et al. (2018), which they see as very different to NPM but is more a social entrepreneurship/corporate social responsibility argument.

In terms of measurement, Rangan and Chase (2015) argue that a defining characteristic of SIBs is the role played by metrics, outcome measurement and evaluation. But despite this focus, the evidence base on the effectiveness of SIBs is limited (Edmiston and Nicholls 2017). An issue with OBC contracts more widely, though not specifically identified for SIBs, is that evaluations often fail to distinguish between SIBs as an innovative form of financing, and the social policy innovations being funded through SIBs (O'Leary and Fox 2016). In their review of evaluations of OBC in the UK, Albertson et al. (2018) identify improving the management capacity of organisations funded through OBC, particularly through a SIB, as a positive outcome identified by a number of evaluations. Typically, this comes about through the 'hands-on' nature of most social impact investing, where investors, rather like venture capitalists, take an active interest in strengthening the management capabilities of the service delivery organisation. However, it is not clear that this is an intended policy objective of SIBs or simply an unintended consequence arising from the need to improve data collection and performance management.

A response to complexity

NPM is a meso-level theoretical explanation: it describes how policy makers may seek innovation, but not why policy makers would seek to innovate. We have discussed above the resource constraints which public budgets face. This leads to the need for efficiency. A further motivation arises from the consideration of public response to increasing complexity of the modern globalised world (Boettke and Coyne 2005).

Complexity affects many aspects of modern life. In the design and delivery of social programs in the developed world, it may arise from: demographic changes; post-industrialisation; changes in the labour market; increased globalisation; climatic vulnerability; and changes in information technology. These challenges interact in ways which are not readily addressed. For example, globally we may require increased commodification and economic throughput, if we are to continue to rely on full-time work to distribute the benefits of economic growth to populations – however, ecological constraints may render such growth counter-productive, even as improved automation makes full-time secure work more difficult to find. Similarly, while we may welcome falling birth rates as evidence we are moving to a more sustainable world, this necessarily implies an aging population and increased dependency.

In essence, the complexity argument highlights two other contrasting debates about social provision; debates which are, to some extent irreconcilable. One is that, where social intervention is required, it is best to be planned and implemented at the local level; central planners might not understand local conditions. This is offset by the consideration that globalisation tends to make global conditions local problems; therefore global, not national, solutions may be required. Central government, increasingly sidelined by global governance yet held democratically accountable, is clearly not well placed to address either of these challenges.

This complexity must be interpreted in the light of policy makers' preferences: A common theme in much public administration literature is that bureaucrats are generally conservative and risk adverse. There is, however, increasing scrutiny applied to their decisions through the lens of social media, therefore increasing demands they deliver innovation. Growing complexity and increasing demands interact with the general risk aversion of policy makers; which in turn creates an incentive to seek commissioning arrangements that transfer responsibility for innovation, service delivery, and ultimately political and financial risk, to third parties.

In short, policy makers may rationally respond to complexity through decentralisation, the transfer of political and/or financial risk, increasing the number of providers engaged in delivering programs, and focusing payment arrangements on the delivery of results. These are all facilitated by OBC. In addition, the evaluation of interventions, which is a necessary part of the OBC narrative, will provide evidence, should it be required, of the suitability of policies undertaken. This further reduces political risk.

However, there is little evidence that OBC will allow policy makers to reduce the complexity of the system they face. Sinclair et al. (2019: 1) argue that:

> *while SIBs may potentially be applicable to some technical policy interventions which address relatively simple conditions, they are inappropriate for the complex conditions characterising wicked social problems.*

On the contrary, SIBs are rather more suited, so it is argued, to simple problems where the "outcome" desired is relatively straightforwardly defined (ibid.). There is little evidence that private providers are any more likely than central planners to heed of the voice of prospective service users' or to facilitate their agency.

Social innovation

Numerous commentators have noted that in developed, Western economies the biggest growth in demand for resources is likely to come in areas such as health and education. It has been suggested that social innovation will play an important role in creating this value (e.g. Mulgan 2006). Within *Europe 2020*, social innovation features almost as prominently as technological innovation (Sabato et al. 2017).

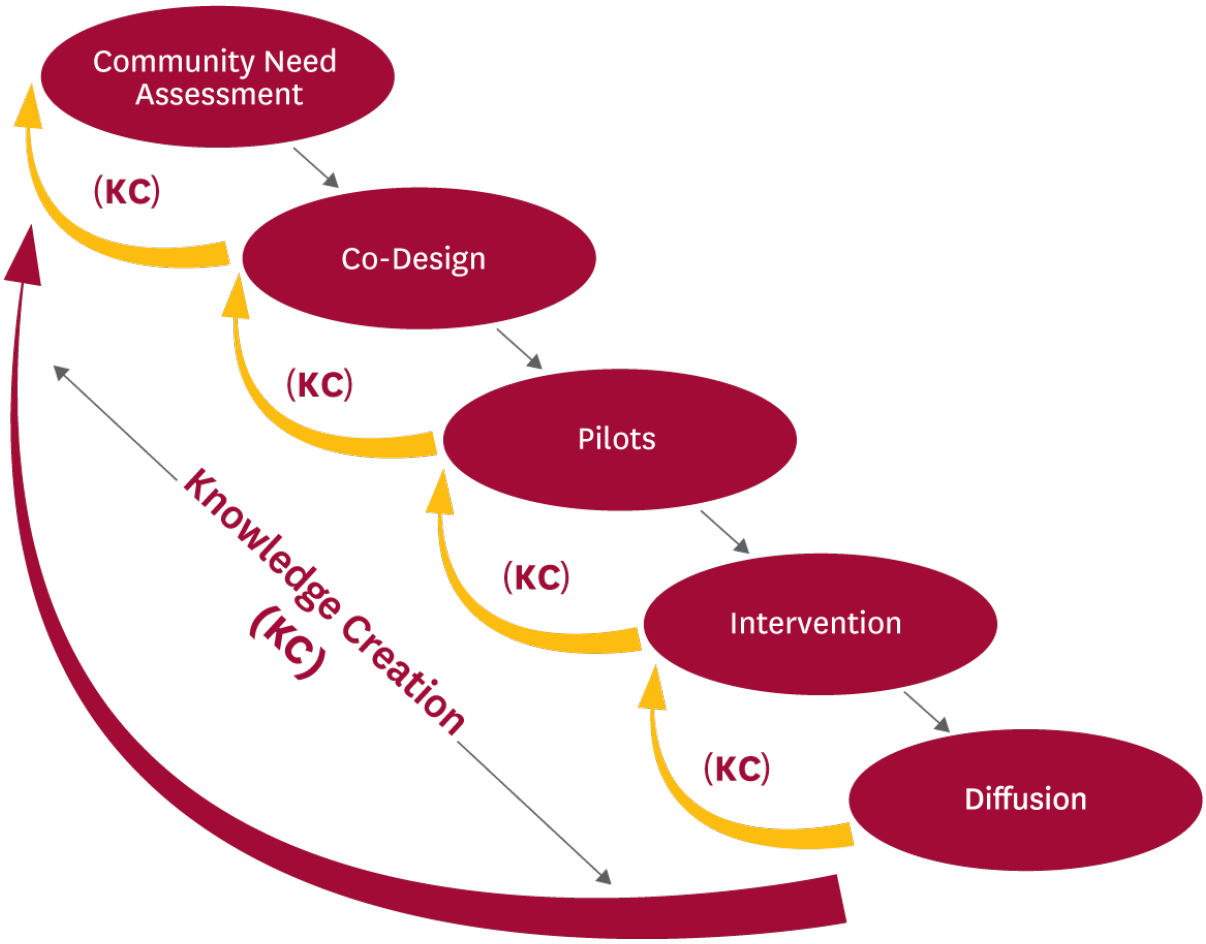
As Grimm et al. (2013) note, social innovation can refer to new products and services that address social needs – goal oriented social innovation (see for instance, Mulgan 2006, Young Foundation 2007 and Phills et al. 2008). However, to define social innovation simply in terms of providing social outcomes is misleading because many firms might claim that their innovations have important social impacts (Marques et al. 2018). Marques and colleagues illustrate the problem using the example of a social media business or a dating website whose products help tackle loneliness. Social innovation, therefore also requires new processes which make use of social relations to deliver products and services in more efficient ways; more socially, not necessarily more economically, efficient. This might be termed process oriented social innovation (see for instance, Mumford 2002, Howaldt and Schwarz 2010). Some commonly used definitions of social innovation combine goal oriented and process oriented innovation. NESTA (Murray et al. 2010: 3) for instance suggests that social innovations are those "innovations that are social in both their ends and their means". One of the defining features of social innovation is that it provides insights and develops capacity and soft infrastructure (intangible assets such as know-how, intellectual property, social capital etc.) that endure and can be utilized by other sectors and forms of innovation.

In contrast to technological and industrial innovation, social innovation is explicitly about addressing human needs (Marques et al. 2018). Thus Mulgan et al. (2007: 35) note that "social innovations, unlike most technological ones, leave behind compelling new social relationships between previously separate individuals and organisations". In this sense social innovation provides a double benefit: not only can it help in finding solutions to pressing social needs, but the process of social innovation itself implies beneficial, transformative change, rather than mere incremental improvements in products and/or services (Transform Consortium, 2008). Nonetheless, in these terms social innovation is still a broad concept. Moulaert et al. (2013) suggest that the fuzziness inherent in the concept is useful because it blurs the boundaries between research and action (Marques et al. 2018). However, Marques et al. (2018) suggest a distinction between: structural social innovation, which refers to wide social change in scale and scope; targeted radical social innovation where activities radically reshape how essential goods and services are delivered to improve welfare and challenge power relations; targeted complementary social innovation where new processes and relationships generate inclusive solutions to societal challenges; and, instrumental social innovation, entailing rebranding community development and corporate social responsibility in a way that is more appealing to stakeholders. This typology is useful for a research project in that it distinguishes more clearly different types of social innovation and also allows us to distinguish 'instrumental social innovation', activity that is branded as social innovation from true social innovation.

The phases of social innovation could be illustrated by **Figure 1**. It critically involves co-production (Rosen and Painter, 2019) through the problem definition and co-design phases. This process, which is iterative, requires learning at each phase and allows the process to pivot from pilots back to design and problem definition if new insights are gained. This "lean experimentation process" (Murray and Ma, 2015) in the early phases of social innovation are

essential in moving to the next steps. The process to create a SIB could include these co-production elements or could fund the pilot or intervention phases. In addition, the stakeholder engagement requirement to set up a SIB contract may provide enhanced likelihood for the ultimate diffusion of successful innovations.

Figure 1: The Process of Social Innovation



Therefore, the framework of social innovation seems to capture much of the promise of SIBs, particularly the opportunity for players in different sectors (public, private and social) to work collaboratively to address pressing social challenges and deliver social outcomes. Below, we apply this framework to our analysis of SIBs worldwide. In the analysis, we attempt to classify SIBs in the social innovation process based on their program characteristics and the qualitative descriptions provided in the data.

Methodology

To conduct this analysis, we relied primarily upon data from the SIB Database managed by Social Finance, a not-for-profit organisation based in the UK (Social Finance 2018). This Database contains profiles of SIBs compiled using publicly available information, including program location, launch date, target population, and stakeholders.

Data Preparation

We began by downloading all data provided within the SIB Database as of 20 November 2018. Data was then cleaned and prepared for analysis. The four most notable steps we took at this stage were: first, we counted and categorized by sector each stakeholder listed in each of the following four categories: investors, outcome funders, service providers, and intermediaries; secondly, we converted all monetary values for capital raised and maximum outcome payments into US dollars using exchange rates from 2010 to 2018 from the Organisation for Economic Co-Operation and Development (OECD) (OECD.stat n.d.); thirdly, we grouped SIBs listed for Wales or England within a UK grouping; and, fourthly, we utilised data from the United Nations Conference on Trade and Development (UNCTAD) to designate each country according to its level of development and its geographic region (UNCTADstat 2018).

Program Classifications

The next major step for building up our dataset was to classify SIBs according to whether or not they were a pilot program or a scaled program in order to better analyze SIBs through the lens of the social innovation process. Pilots are typically small-scale projects that are used to test and gain evidence about an intervention before extending it to larger target populations. Through the information obtained during the pilot stage, stakeholders can make any required adjustments to the program before scaling it. Once scaled, programs are generally intended to achieve some sort of systems change by expanding the delivery of some proven intervention. We developed a classification in two phases: 1) a hand-labeling phase and 2) a coded phase.

We began by utilising the data from the SIB Database profiles to see if the type of language used to describe each program could reveal its pilot or scaled status. We hand-labeled programs as pilots when the following type of language was used: “pilot,” “test,” “show whether or not the… method is successful,” “initially support,” “provide additional academic support,” and “identify the broader impact and benefits of the program.” On the other hand, we labeled a program as scaled when the following kinds of phrases were used: “scale,” “scale-up,” “expand,” “established model,” “existing suite of programs,” and “as a result of learnings from a pilot program.”

Once we had this rough set of 27 manually-labeled programs to use as a sample within our dataset, we looked for trends between these two categories with regards to target population size, size of both capital raised and maximum outcome payments, and program duration with which to code all of the programs systematically. In general, we observed that most of the manually-identified pilot programs had target populations below 300, had both capital raised and maximum outcome payments below $2 million, and had durations of less than 4 years. However, there were some notable instances in which this was not that case.

For example, there were two “scaled” programs which had target populations of only 180 and 200, and there were also two “pilot” programs with target populations of 1,300 and 2,250. Some of these programs had further complications, as well. The “scaled” program with a target population of 180, which was the Youth Unemployment program launched in Portugal in 2017, also only had $0.79 million in capital raised. Thus, despite the fact that it was a described as a “scale-up of Portugal’s first Social Impact Bond,” we doubted whether this really should be referred to as a scaled program. Similarly, the “pilot” program with a target population of 2,250, which was the Diabetes Prevention program launched in Israel in 2016,

had also raised $5.5 million in capital. Again, although its Database profile stated that the program was designed to "test a preventative Diabetes model, and if successful… extend diabetes prevention measures to many more people," we questioned our initial manual label of this program as a pilot. Another interesting case was the scaled Girls' Education program launched in India in 2015 which had raised only $0.27 million in capital and had a maximum outcome payment of $0.31 million. However, we still felt confident of our manual "scaled" label, as it was plausible that this program had low monetary values due to the lower costs associated with implementing a program in a developing country.

Ultimately, we decided to classify programs as pilots if they had target populations (or "lives impacted") below 300 and if they had raised less than $2 million in capital. Of note, if the Database did not contain any information on these two variables, including if the amount listed for capital raised was $0, we did not categorise the program as either pilot or scaled. There were 7 programs which our code could not classify due to these reasons. Conversely, if the Database was only missing information on one of the variables, we classified the program according to the other variable. For instance, for the Green Infrastructure program launched in the US in 2016, no data was available on the size of the target population. However, we still classified the program as being scaled because it had a capital raised of $25 million. While our classification of a program as pilot or scaled was still a bit arbitrary, we did find that it conformed well with our prior hand labels. The only times our coded and hand labels did not match was for those four programs we noted above when discussing anomalies between our hand labels and the size of the target populations. In addition, there was one instance in which our hand label for a program was "pilot", but which our code did not classify as either a pilot or scaled program due to missing data for both target population and capital raised.

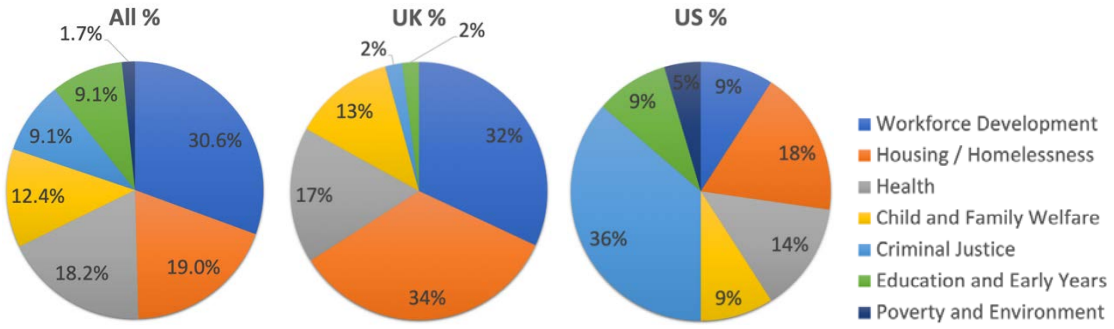
An additional note about our dataset is that it was compiled from data we obtained in November 2018. While this data remains recent and relevant, Social Finance has continued to update their SIB Database in the meantime. One major, and unfortunate, change that they enact when updating their website with new programs, is that they adjust the program identification numbers (IDs). Therefore, while it would have been convenient for us to refer to certain programs according to their ID numbers for ease of reader use, we did not do so because these ID numbers no longer conform with the live Database records.

Findings

Initial analysis identified some temporal, spatial and thematic trends. The first SIB was established in the UK in 2010. By 2012, the UK had established 13 more. By 2013, the adoption of SIBs had expanded to other developed countries: the US (3 SIBs), Australia (2 SIBs), Germany (1 SIB), and the Netherlands (1 SIB). In 2015, an additional 7 countries adopted SIBs, including 2 developing countries (Peru and India). Since that time, the number of SIBs has continued to grow rapidly, with the number of SIBs launched in one year even reaching 39 in 2017. At present, 121 SIBs have been launched in 24 countries. These SIBs have leveraged over $400 million in investment capital and impacted over one million people worldwide. Notably, of the 121 that have been launched thus far, the majority have been in the UK (47 SIBs) and the US (22 SIBs). Additionally, only 11 have been implemented in developing countries, including 2 which were implemented in least developed countries (LDCs). There also appear to be spatial trends in SIB diffusion at the regional level, with considerable diffusion in North America (26 SIBs) and in Europe (70 SIBs) – the top two geographic areas with the highest numbers of programs. Moreover, there are 7 main issue

areas in which SIBs seek to improve social outcomes: 1) workforce development, 2) housing and homelessness, 3) healthy, 4) child and family welfare, 5) criminal justice, 6) education and early years, and 7) poverty and the environment. **Figure 2** provides charts which compare the breakdown of SIBs which address each of these topics in the UK and the US.

Figure 2: Percentage of Programs by Issue Area for All, UK, and US Programs



Twenty seven programs were funded as part of a broader initiative or fund designed to experiment with and finance SIBs. Of these, 24 were programs within the UK. As an example, 10 programs noted that they were established by "The UK Department for Work and Pensions (DWP) [which] commissioned ten Social Impact Bonds under the innovation fund, to pilot social investment and new delivery models." Similar language was used to describe how 13 programs were funded through broader initiatives by the UK Department for Communities and Local Government, and how one program was financed through the Bridges SIB Fund. Outside of the UK, there were two programs which stated that "This project is part of a broader commitment from the French Ministry of Economy and Finance to pilot the Social Impact Bond model in France," and one program which noted that "The project is part of a wider government initiative to pilot Social Impact Bonds in New Zealand."

Pilot versus Scaled

Out of all 121 programs, 31.4 percent were coded as pilot programs, 62.8 percent as scaled programs, and 5.8 percent were not classified due to missing data. The patterns for programs within the UK were very comparable, with 31.9 percent pilot programs, 63.8 percent scaled programs, and 4.3 percent non-classified programs. However, we found significantly different patterns in the US, where only 9.1 percent of programs were pilots compared to 90.9 percent which were scaled. In addition, within the four variables previously considered in creating the pilot versus scaled classifications – target population, capital raised, maximum outcome payments, and duration – we saw some further interesting trends. **Tables 1 and 2** summarise these findings below.

Table 1: Trends in Pilot Versus Scaled Programs for All, UK, and US Programs

	Total	**UK**	**US**
Target population < 300	38.7% (43/111)	35.6% (16/45)	25.0% (5/20)
Capital raised	52.1% (50/96)	69.7% (23/33)	4.8% (1/21)

< $2M (> $0)			
Max outcome payments < $2M (> $0)	33.3% (24/72)	21.4% (6/28)	5.3% (1/19)
Duration < 4 years	50.9% (57/112)	70.5% (31/44)	14.3% (3/21)
Pilot programs	31.4% (38/121)	31.9% (15/47)	9.1% (2/22)
Scaled programs	62.8% (76/121)	63.8% (30/47)	90.9% (20/22)
Non-classified programs	5.8% (7/121)	4.3% (2/47)	0.00% (0/22)

Note: Parentheses provide the number of programs that meet each qualification out of the number of programs for which that value is non-blank and non-zero

Table 2: Trends in Target Population, Capital Raised, Maximum Outcome Payments, and Duration for All, UK, and US Programs

	Total	**UK**	**US**
Target population (lives impacted)			
Min	14	14	135
Max	600,000	11,000	4,458
Mean	9,541.9	1,205.2	1,239.8
Median	416	415	490
Capital raised ($M)			
Min	$0.0	$0.0	$0.0
Max	$30.0	$7.7	$30.0
Mean	$3.5	$1.5	$9.8
Median	$1.4	$1.3	$8.6
Max outcome payments ($M)			
Min	$0.0	$0.0	$0.0
Max	$34.5	$13.3	$34.5
Mean	$3.9	$2.8	$10.2
Median	$1.3	$1.8	$6.8
Duration			
Min	1.0	2.0	3.0
Max	30.0	10.0	30.0
Mean	4.5	3.9	6.2
Median	3.5	3.5	5.3

Target Population

When examining patterns for target populations, we can see that the range for all SIBs extends from 14 to 600,000. The mean is also quite high at 9,541.9, though the median is much lower at 416. When comparing programs within the UK and the US, we can see that

the range in the UK (14 to 11,000) is much larger than the range in the US (135 to 4,458). However, programs within the UK and the US have comparable means, 1,205.2 and 1,239.8, and medians, 415 and 490, respectively. Notably, while the percentage of UK programs with target populations below 300 is 35.6 percent, similar to the percentage for all programs at 38.7 percent, the percentage for US programs is a bit lower, at 25 percent.

Capital Raised

While the maximum values for capital raised are the same for all programs and US programs ($30 million), it is considerably smaller for UK programs ($7.7 million). We see somewhat similar trends when looking at the average amounts for capital raised. When compared to the average of all programs ($3.5 million), the average for UK programs ($1.5) is again smaller, but the average for US programs is much higher ($9.8 million). Conversely, the median values for all programs and UK programs are much closer together, at $1.4 and $1.3 million, respectively. The US still has a significantly higher median value at $8.6 million. In addition, there are vast differences in the percentage of programs with capital raised below $2 million, at 52.1 percent of all programs, 69.7 percent of UK programs, and 4.8 percent of US programs.

Maximum Outcome Payments

Even more fascinating trends emerge when analyzing the values for maximum outcome payments. For instance, while the maximum values are the same for all programs and US programs ($34.5 million), they are considerably smaller for UK programs ($13.3 million). Additionally, while the mean for all programs is $3.9 million, in the UK the mean for programs is $2.8 million and in the US is much higher at $10.2 million. The median values show mostly similar patterns, with maximum outcome payments for all programs ($1.3 million) and UK programs ($1.8 million) fairly close together, but much higher for US programs ($6.8 million). When looking at the specific threshold for percentage of programs with values below $2 million, the percentage for all programs is 33.3 percent, while the percentage is lower for UK programs at 21.4% and significantly lower for US programs at 5.3 percent.

Duration

For program duration, the range for all programs is 1 to 30 years, while the mean is 4.5 years and the median is 3.5 years. UK programs have a much smaller range, at 2 to 10 years, though a comparable mean and median, at 3.9 years and 3.5 years. US programs, meanwhile, have a similar range, at 3 to 30 years, but a larger mean and median, at 6.2 years and 5.3 years. A closer look, though, provides a more nuanced description of country differences. While 50.9 percent of all programs have a duration of less than 4 years, this number is significantly higher for the UK programs at 70.5 percent and significantly lower for US programs at 14.3 percent.

Stakeholders

Finally, we see some interesting trends when comparing the number of stakeholders between the UK and US programs. More specifically, we looked at the number of investors, outcome funders, service providers, and intermediaries. One data limitation, however, is that, due to imprecise wording from the SIB Database, we had to estimate the number of stakeholders

within at least one of the four stakeholder categories for 31 of the programs. For example, one of the funders listed in the UK's Children Social Care program launched in 2017 was simply "schools." Without knowing the exact number of schools contained within this group, we estimated it at the lower bound of two. Therefore, some uncertainty remains over the true number of stakeholders involved for some SIBs. **Table 3** summarises these findings below.

Table 3: Trends in Stakeholders for All, UK, and US Programs

	Total	UK	US
Investors			
Min	0	0	1
Max	59	13	34
Mean	3.5	2.8	5.7
Median	2	1	4
Outcome Funders			
Min	0	1	1
Max	12	12	3
Mean	1.7	2.3	1.4
Median	1	2	1
Service Providers			
Min	0	1	1
Max	15	15	6
Mean	1.8	2.2	1.7
Median	1	1	1
Intermediaries			
Min	0	0	0
Max	3	1	2
Mean	0.8	0.6	1.0
Median	1	1	1

Investors

We found a wide variety among the maximum number of investors. For all programs the maximum is 59, but for UK and US programs the maximums are 13 and 34, respectively. However, much less diverse trends emerge when looking at the average number of investors, with all programs having an average of 3.5, UK programs 2.8, and US programs 5.7. Trends are somewhat different when looking at the median values, as all programs have a median of 2, while UK programs have a median of 1 and US programs have a median of 4.

We also analyzed the sectors from which investors belonged. We found that for all programs, 63.6 percent had at least one not-for-profit investor, with the percentage lower in the UK than in the US. On the other hand, the percentage of programs with at least one private investor was 72.7 percent for all programs, 80.9 percent for UK programs, and 72.7 percent for US programs. The percentage for all programs, UK programs, and US programs with at least one public investor were consistently low, between 8.3 percent and 10.6 percent. We also found that the percentage of programs that had investors from more than one sector were more

mixed, at 48.8 percent for all programs, 40.4 percent for UK programs, and 77.3 percent for US programs.

Outcome Funders

For outcome funders, the maximum number for all programs and UK programs are both 12 (as a UK program drove the maximum value for all programs). Conversely, the maximum for US programs is 3. When looking at the average values, though, we get a more nuanced perspective. The mean for all programs (1.7) is similar for US programs (1.4), but is slightly larger for UK programs (2.3). Similar trends are observed when looking at the median values, as all programs and US programs have medians of 1, while UK programs have a median of 2.

Service Providers

There were also some interesting differences regarding the number of service providers. While the maximum number for all programs and UK programs are both 15 (as a UK program again drove the maximum value for all programs), it is 6 for US programs. Such differences become smaller when observing the average values, though. While the average for all programs (1.8) is similar to that of US programs (1.7), it is slightly higher for UK programs (2.2). However, such differences disappear when examining the median, for which all categories the value is 1.

We also examined from which sectors service providers were situated. In particular, we wanted to explore whether more service providers were from the not-for-profit sector, which would be consistent with the theory of social innovation in that the means as well as the ends of the programs were primarily social. Notably, the percentage of programs with at least one not-for-profit provider were all high, at 73.6 percent for all programs, 87.2 percent for UK programs, and 86.4 percent for US programs. These percentages remain high when we look at those programs whose service providers were only not-for-profit: 66.1 percent of all programs, 78.7 percent of UK programs, and 77.3 percent of US programs. Also interesting is that the service providers involved in the SIB much more frequently came from the same sector than for investors; 81 percent of all programs, 89.4 percent of UK programs, and 90.9 percent of US programs had service providers from only one sector. In addition, while all programs and UK programs had fewer programs with at least one public service provider (8.3 percent and 2.1 percent, respectively), the US had considerably more (22.7 percent). The opposite was true for programs with at least one private service provider; all programs and UK programs each had about 17 percent, whereas the US had 4.5 percent.

Intermediaries

While the number of stakeholders tended to vary for the prior three categories, the trends for intermediaries are fairly consistent. For instance, the maximum for all programs is 3, while for programs in the UK and the US it is 1 and 2, respectively. The average number of stakeholders are even closer together, with all programs at 0.8, UK programs at 0.6, and US programs at 1. However, again, such differences disappear when examining the medians, for which all categories the values are 1.

Discussion

SIBs in the UK and US are designed to deliver a number of different social outcomes, most commonly in housing and homelessness (34 percent and 18.2 percent of programs, respectively) and health (17 percent and 13.6 percent of programs, respectively). Additionally, UK programs frequently address workforce development (31.9 percent) while US programs often target criminal justice (36.4 percent). We coded approximately a third of UK SIBs as pilot programs and two thirds as programs that are of sufficient scale to build an evidence based on effectiveness, whereas 90 percent of SIBs in the US are classified as scaled programs. Even allowing for some potential for misinterpretation because of data limitations, this is a strong contrast between the UK and US. The UK and US SIBs have similar mean and median size of target population, although the US seems to have fewer small target populations than the UK. On other key dimensions there tend to be clear differences between UK and US programs. Thus, US programs tend to have more capital raised, higher maximum outcome payments, and longer durations than UK programs. US programs also tend to have more investors, fewer outcome funders, fewer service providers, and approximately the same (or slightly more) intermediaries.

Concentrating on UK and US programs, to what extent can we explain our findings through applying a social innovation theoretical framework? If we start with the broad assertion that social innovations are social in both their means and ends then our analysis supports the assertion that SIBs are innovations that are social in their ends and that, in contrast to technological innovation, they are innovations that explicitly address key human needs. The data that we have gathered to date provides some indications that SIBs are also social in their means. The proportion of service providers that come from the voluntary (as opposed to the public) sector are even higher. While 73.6 percent of all programs in the Database have at least one not-for-profit provider, around 87 percent of programs in both the UK and the US have at least one not-for-profit provider.

We can also start to locate SIBs within Marques et al.'s (2018) typology. First, while we might expect SIBs to fall primarily in one of the two 'targeted social innovation' categories, the large scale of some of the 'scale-up' SIBs suggests that, actually, they might be considered as a form of structural social innovation. One example of a SIB in the UK that promotes structural social innovation is the Socially Prescribing program which aims to assist 11,000 chronically ill individuals, including those with lung disease, diabetes, asthma, and heart disease. More specifically, it seeks to improve individuals' wellbeing through lifestyle changes, such as "physical activity, healthy eating/cooking, social interaction, welfare rights advice and support with positive relationships". Launched in 2015, the program is set to run for 7 years and seeks to promote more systemic change to reduce the large strains chronic illnesses are placing on the UK's healthcare system at 70 percent of annual NHS spending. Another example of a SIB targeting more systemic change is the Green Infrastructure program in the US. This SIB, launched in 2016 in Washington D.C., has the longest duration of all programs in the Database at 30 years and has very large values of capital raised ($25 million) and maximum outcome payments ($28.3 million). It is also the only SIB in the US to address poverty and the environment, and, in fact, is the "first environmental impact bond" in the US. It promotes wider systems change in that it is intended to fund green infrastructure to reduce water pollution and improve water quality, with all proceeds of the bond being reinvested into more green infrastructure projects.

However, most SIBs seem to fit more comfortably into the category of 'targeted social innovation'. Within the data we have collected so far it is not possible to categorically distinguish between radical and complementary versions of targeted social innovation.

However, our previous work in this field (Albertson et al. 2018) suggests that SIBs are more likely to fall into the category of 'targeted complementary social innovation' where new processes and relationships generate inclusive solutions to societal challenges (Marques et al.'s 2018). In future analysis we will also look at the character of those not-for-profit providers; for example, what proportion of them are cooperatives or mutuals or have a strong user voice in their governance arrangements. This will help us to explore in more detail the nature of the relationships that SIBs foster.

However, while further analysis will help us provide a richer description of the relationships that SIBs foster, our previous work (Albertson et al. 2018) and that of others (eg Ronicle et al. 2014) suggests that beneficiaries (users of services funded by SIBs) and their communities generally have little or no role in the development of SIBs. Sinclair et al. (2019) argue that much of the support for SIBs is attributable to the fact that they *appear* to depoliticise social policy, although the application of narrowly conceived economic principles to welfare provision is a highly political decision. Sinclair et al. argue that SIBs represent a further step in the ongoing financialisation of social policy which transform service users into "fictitious commodities" (Sinclair et al. 2019: 4). One effect of this tendency has been the marginalisation of service users' voice and agency (ibid). For Sinclair and colleagues transformational social innovations which may empower service users are more likely to result from a participatory approach to service design, implementation and evaluation (ibid.). This is problematic for an application of social innovation theory to SIBs because it would suggest that, while SIBs are social in their ends, they are not fully social in their means. The means have social elements (often involving not-for-profit investors and providers), but ultimately SIBs tend to be 'top down' and do not involve service users and communities in their development.

For SIBs to be fully social in their means and ends a theory of SIBs would need to incorporate a stronger argument in support of co-creating services. Co-creation can be understood as an integral part of the social innovation process (Murray et al. 2010). Voorberg et al. (2015) make a link between the co-creation and social innovation as 'magic concepts' that have been embraced as a new reform strategy for the public sector in the face of social challenges and budget austerity.

Finally, the data suggest mixed evidence on the purpose of the SIB in the Social Innovation process. While it can be argued that SIBs in the US fit neatly in this framework because so many of the SIBs are intended to scale up promising pilots, the purposes of the SIBs in the UK are more mixed and require further investigation. The lack of rigorous evaluation in many of the larger SIBs and the lack of innovation for the pilots suggest that other explanations for the use of SIBs may be required. Data from other countries varies sufficiently to suggest more complicated explanations.

The development of New Public Governance provides a potential framework for making clearer the relationship between social innovation and co-creation. Osborne (2018) suggests that the definition of what constitutes 'value co-creation in public service is still only embryonic, but, he argues, the key is to move from linear and production-influenced conceptions of 'co-production' to dynamic 'value co-creation'. When we do so we find that public service organisations do not create value for citizens, rather they can only make a public service offering. Whether value is created depends on how citizens interact with it. Thus, co-creation assumes "an interactive and dynamic relationship where value is created at the nexus of interaction" (Osborne 2018: 225). Therefore, social and economic value for the

service user and the public service organisation are not created by a linear process of production but rather through an interaction in which the service user's wider life experience is part of the context (ibid.).

The practical implication of understanding co-creation as a manifestation of social innovation is that the interaction of multiple actors is required to achieve societal goals and to deliver public services. Thus, for SIBs to truly be socially innovative service users (beneficiaries) must be involved in co-creating SIBs, something that, to date, has not generally been seen. An implication for developing theory on SIBs (as a manifestation of social innovation) and theory on social innovation more generally, is that an effective theory must provide a clear account of the role of co-creation in social innovation. Marques et al.'s (2018) typology of social innovation is a useful advance on earlier definitions, but needs a clearer elaboration of the role of co-creation in social innovation.

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