

Socialising Market Risk – A Case of Social Impact Bond

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Abstract

The allocation of finance capital to fight social ills, is traditionally regarded as a misallocation and diversion of capital from where it should be. The emergence of impact investing in the form of Social Impact Bonds (SIBs) addresses this issue by extending economic rationalities of a so-called non-economic policy paradigm. Funding developmental needs with the private capital and rewarding that in an outcome-based pay-for-success model remains at the core of SIBs. A case from India shows promise to scale up interventions through SIBs with more intensities in days to come.

Introduction

The allocation of finance capital to address the social and environmental problems has been in the spotlight for more than a decade now (Nicholls and Emerson, 2015; Calderini et al., 2018). The inefficiency of public spending, insufficiency of the charitable model along with the growing social inequalities and environmental degradation called for a more proactive capital allocation to address these problems. But, the very nature of finance capital is the component of return on investment which social and developmental sectors have traditionally failed to deliver. The social impact investment (SII) is an innovation in this context. SII is simply a strategy of asset allocation on the projects that

have positive social and environmental impacts along with economic sustainability and financial returns (Clarkin and Cangioni, 2015). Social impact investment has found its space in the broad spectrum of social finance with three distinctive natures. First, its social and environmental outcomes are not incidental rather defined a-priori and measured ex-post (Calderini et al., 2018); second, the search for social impact is proactive (Ngaosong et al. 2015) and third, the expectation of repayment with a mark-up makes it different from philanthropy (Nicholls and Emerson, 2015). The word 'impact' is added with investment to stress upon the social and environmental objectives over the financial returns. In particular, the

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present study focuses on a special instrument of social impact investment known as social impact bond (SIB). The present study uses a case of Development Impact Bond (DIB) which may be regarded as a subset of SIB. In DIBs the term 'development' defines an area of intervention from the context of an underdeveloped or poor country. SIBs on the other hand are broad based and more flexible towards financing a project if the objectives of positive social and environmental impacts are met. The present paper examines the rationalities of impact bonds and synthesises how it works in the Indian context.

SIBs are regarded as the next step of marketization of public service delivery (Cooper et al., 2016). They have been initiated in United Kingdom and executed in United States, Australia, Canada, New Zealand and a few other countries (Social Finance, 2012). SIBs have been used to initiate the market mechanism and provide financial incentives in the social policy that are traditionally governed by bureaucratic governmental structure and considered to be inappropriate for the marketization (Cooper and Taylor, 2005). The emergence of SIBs can be theorised as a connection between neoliberal¹ or ordoliberal² era and changing social and environmental practices of people. In traditional investment paradigm the private

capital serves social cause when it is backed by government with a guaranteed payment. Instead in SIBs the returns are tied in a 'pay-for-success' mechanism. If the pre-defined result is attained, then the payment is made from the funding body making the investment mechanism more result oriented and market driven. In the later part of this article we have discussed it with more detail, but before going into that we use certain theoretical framework to understand the rationality behind shifting the boundary between private, public and non-profit sectors (Broadbent and Guthrie, 2008).

Social Market Economy and SIB

In our attempt to rationalise SIBs in the marketization context we have drawn heavily on the 'social market economy' which is also known as Rhine Capitalism or the German model. Social market economy is a model that combines free market capitalism along with social policies that establishes a fairly competitive market in a welfare state. In contrast to the Anglo-Saxon model, social market economy falls in the ordoliberal school of thought that considers state to have a strong role to play in the social policy paradigm maintaining a fair competitiveness in the market. The neoliberal or Anglo-Saxon model is more prominent among English speaking countries like, United States, United

¹Neoliberalism is a 19th century idea that includes economic liberalization policies and advocates reduced government control to increase the role of private sector.

²Ordoliberalism is a German model of social market economy that considers state to have a strong role to play even in the free market scenario to ensure its full potential to deliver desired social value.

Kingdom, Canada, New Zealand, Australia and Ireland, whereas the social capital model is prevalent in continental Europe. To put this in the context of SIBs, the risk that is inherent in the free market economy is socialised by government interventions but following the market based principles of risk and returns of the finance capital. Cooper et al. (2015) have explained the phenomena following Foucault's conception of 'biopolitics'; it rationalises that, the governmental practices are guided by the population and that cannot be dissociated from the framework of the political rationality (Foucault, 2008). SIBs are the extensions of economic rationalities that were not explored earlier. They are the vehicle of interventions in the areas which earlier were regarded as non-economic. In the mechanism of impact investing, the investment of private capital is made on specific areas having social and/or environmental impacts and carries the risk of losing money for not fulfilling the requirements according to the predefined outcome metrics. After the project, the services delivered are assessed and compared with the predefined goals and the investment of the private capital is rewarded with returns accordingly. Thus the SIBs and its close variants may be regarded as a new extension of ordoliberalism that introduced free market mechanism in the so called non-economic policy paradigm of governments.

Social Impact Bonds

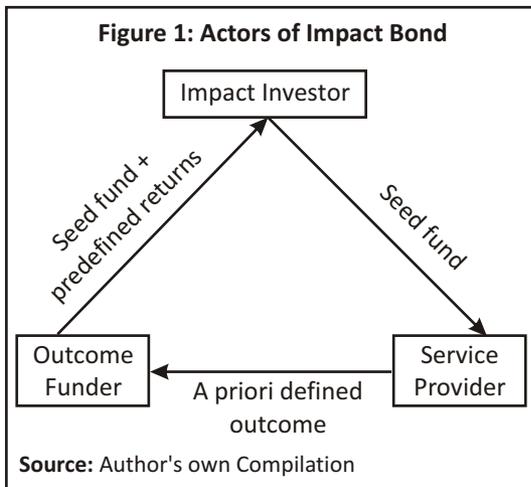
In spite of the progress in the human development indicators worldwide, the significant global challenges remain. Over 800 million people around the world live on less than \$ 1.25 a day (UNDP Report, 2017), about 263 million children are out of school (Education Commission³, 2016). United Nations' ambitious Sustainable Development Goals (SDGs) to eradicate poverty, reduce inequality, ensure quality education, improve healthcare, promote gender equity, promote peace and harmony and ensure environmental sustainability through climate consciousness, are regarded as the most important dimensions of development. But, to attain these goals there is a huge funding gap between the funds mobilised for these purposes and the funds required. According to an estimation of Education Commission in 2016, in only education sector alone there is a funding gap of \$1.7 trillion if we consider quality education for all by 2030. So, for advancing SDGs, governments and multilateral organisations require innovative financing. Social Impact Bonds are the recent innovation in the area of social finance that may be regarded as an effective tool to move towards SDGs.

Impact bonds blend result-based financing and impact investing. In an impact bond

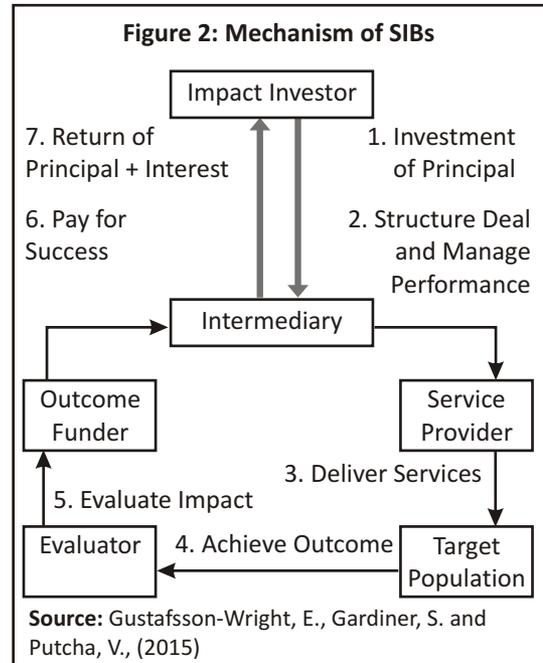
³The Education Commission is a global initiative to encourage progress on Sustainable Development Goal which focuses on inclusive and quality education for all. It published its first report "The Learning Generation: Investing in Education for a Changing World", covering 105 countries, that puts forward an action plan for the expansion of educational opportunity.

private investors provide an upfront seed capital and on fulfilment of the predefined goals the seed capital along with a return component is given back to the private investor. Alternatively, the outcome funder may issue a deep discount bond whose redemption is contingent upon the achievement of predefined results. Social impact bonds (SIBs) are also called pay-for-success (PFS) in United States, social benefit bonds (SBBs) in Australia and development impact bonds (DIBs) in the developing country context. Though the impact bonds are called using different names or structured in different ways, their basic mechanism remains the same. An impact bond primarily involves three actors, namely, investors, service providers and outcome funders (Figure 1).

outcome-funder payback the seed capital along with returns to the impact investor. Apart from these three primary players there are other key players like evaluator, intermediary and entities for technical assistance. An evaluator is usually a third party that validates the performance of the service providers in comparison to the desired outcome. An intermediary usually arranges capital and handles negotiations among investors, service providers and funders. Intermediary often helps service providers in attaining the desired outcomes. Sometimes there are entities in an SIB that provide the technical assistance in defining the outcome metrics and designing payment terms. Figure 2 reports a more comprehensive mechanism of SIBs.



An investor provides upfront seed capital to the service provider. Service provider delivers to the target population to attain a predefined goal. Upon attaining the desired outcomes, the



Performance of SIBs

In a report on ‘The Potential and Limitations of Impact Bonds’, published by Brookings Institution in the year 2015, that includes the study of 38 SIBs, it was mentioned that they have the potential to deliver positive social and environmental impacts though the authors point out that there is a wide range of variations in the deal structure which at times become complex and highly expertise intensive. Centre for universal education at Brookings Institution along with ‘Convergence’⁴ studied the impact bonds in developing country context. Their report on ‘impact bond in developing countries: early learnings from the field’ in 2016 captures design, development and implementation phase of impact bonds in addressing the social needs in the poor and developing countries. The report shows that the returns from the social impact bonds are quite competitive. Table 1 presents the return of impact bonds from some low and middle income countries. Another important aspect is transaction costs and this is beyond the investment amount. These transaction costs are not incidental but very much the part of an SIB contract. These

Table 1: Returns of Select Impact Bonds

Impact Bond Name	Maximum Returns (IRR)
Cameroon Cataract DIB (2017-22)	8%
Columbia Workforce Development SIB (2017-18)	8%
India Educate Girls DIB (2015-18)	15%
India (Rajasthan) Maternal and Newborn Health DIB (2017-20)	8%
India Education DIB (2017-22)	7%
Mozambique Malaria DIB (2017-20)	0.05%
Peru Sustainable Cocoa and Coffee Production DIB (2018-21)	\$ 110,000 (return of principal)
South Africa ECD Innovation Fund – Health (2017-21)	16%
South Africa ECD Innovation Fund – Social Development (2017-20)	16%
Tajikistan WASH SIB(yet to be started, duration 5 yrs)	10% (estimated)
Uganda Empowering Women and Youth in the Coffee Value Chain DIB(yet to be started, duration 3 yrs)	\$110,000

Source: Report of Centre for Universal Education, Brookings Institution, 2017

costs include the margin for intermediary services, legal fees, cost of technical assistance and cost of evaluation. Out of these, evaluation may attract higher chunk of such costs. It may include collection of baseline data, execution of techniques like randomised control trials (RCT) that are resource

⁴Convergence is an institution that mobilizes, supports and educates investors to design and execute blended financial deals to increase private sector investments in the emerging markets.

intensive and time consuming. Following the basic rule of finance with the increase in time frame for return, the Internal Rate of Return (IRR)⁵ of the project decreases. Table 2 states some of the evaluation metrics of an SIB contract from the perspective of the outcome funders.

Finally, a very important aspect of SIB is

performance management. It is of high importance to investors whose capital is at risk. So the performance management is primarily investor/intermediary led or sometimes is done by third parties. Moreover, the efficiency in service delivery and performance management is a key result area of SIBs as these are associated with financial incentives.

Table 2: Evaluation Metrics of SIBs

Goal of the outcome funders	Methodology of Evaluation	Pros and Cons
To pay only for success by achieving a set of outcomes (the risk is shifted)	Independent validation of performance data	Relatively low cost; Attribution of impact not possible
To achieve a set of outcome at the least possible cost	Independent validation of performance data	Relatively low cost; Attribution of impact not possible
To determine if an intervention is better than its counterfactual	RCT and Quasi experimental design	Attribution of impact is possible; Potentially more costly
To compare outcome among interventions	RCT and Cost effectiveness analysis	Attribution of impact is possible; Potentially more costly

Source: Author's compilation

The Spread of SIBs in Global Context

The presence of SIBs around the world particularly in OECD countries are gaining momentum. To be precise, they have been taken more enthusiastically in countries like the US, the UK and Australia where a significant part of welfare needs is already privatised. According to OECD report “SIBs: State of Play and Lessons Learned” (2016), by mid 2015 there are 43 SIBs launched around the world and at least 30 more are in the development phase. UK has initiated more than half the SIBs that exist worldwide. Cities and other sub-national authorities like states or provinces are playing a major role in the development and delivery of SIBs or sometimes exclusively as delivery partner where central governments act as

⁵Internal Rate of Return is a metric used to estimate the profitability of a potential investment. If the cost of the fund is less than the IRR, the investor finds the investment potential to be attractive.

the funders. Chicago Pre-School Education SIB is an example where a city is involved in development of an SIB. We have mentioned earlier that SIBs in the developing country context are called DIBs. DIBs on education have already been implemented in India. DIBs are planned in Brazil, Mexico, Columbia, Uganda and Pakistan. There are plans to initiate DIBs in Mozambique and India to reduce the incidence of Malaria. Planning to launch DIBs are going on in Rwanda to fight against adolescent HIV. But in every case the essence of DIBs over the traditional public funding for the welfare state depends on the design of the instrument. For example, National Audit Office (NAO) of Mozambique could not use a pay for success method as the number of bed nets has been used as the outcome indicator. NAO correctly believes that number of bed nets are an output and not an outcome.

The social issue areas that are covered in SIB transactions are social welfare, employment, criminal justice and education. Capital size of bonds differ extensively based on the deal structure. For example, funds in the UK has a common practice of low upfront capital and recycling the fund throughout the programme by reinvesting the early payments. Contrary to this, US model of SIBs are based on large upfront capital commitments. Most of the deals in the UK has the characteristics of more of an equity where the repayment is risky and varies with the performance of the recipients. Successful examples of SIBs are there from both developed as well as developing

countries. Some of the successful SIBs in developed country contexts are, One Service in the UK that focuses on the social issue of prison recidivism, Utah high quality preschool programme in the USA, that targets the problem of limited access to early childhood education, Newpin social benefit bond in Australia, that covers children who are in unhealthy family environment, social impact bond Rotterdam in Netherlands, that works on unemployment and Eleven Augsburg in Germany that also focuses on the employment. In the following section we discuss a case from India and elaborate SIBs with more insights in the developing country context.

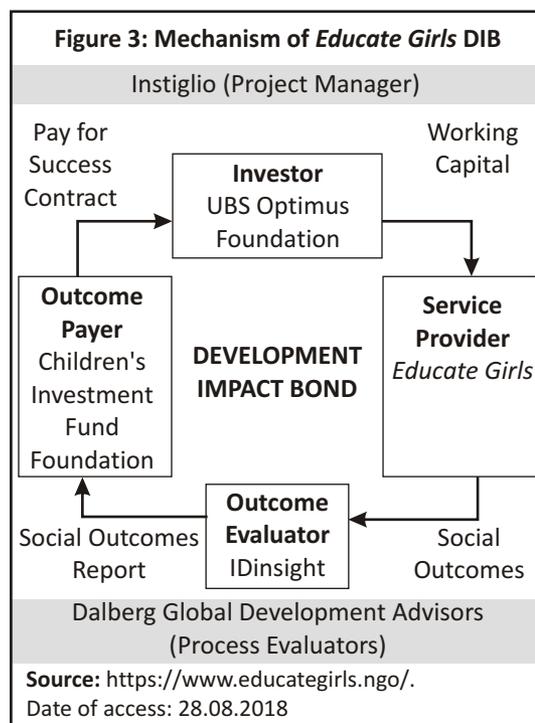
Case Study – India Educate Girls DIB

'India Educate Girls Development Impact Bond' is the world's first DIB in education implemented in the state of Rajasthan, India in May 2015 for 36 months. The release of Gender Vulnerability Index (GVI) by Plan International 2017 re-establishes the fact that the life of a girl child has been tough in Rajasthan. GVI covers four aspects to assess gender vulnerability, viz. poverty, protection, education and health. The overall rank of the state in GVI (22nd) is well below others, and if we look into the individual components, the state is suffering the most in poverty (24th) and education (20th). The state has fared slightly better in terms of providing protection to girl child securing 16th rank out of 29 states. 35.4 per cent of girls in Rajasthan are getting married before the legal age and 25.1

per cent women have experienced spousal violence. In the education front the report outlines that only 25 per cent of women have 10 or more years of schooling indicating a high dropout rate. Women literacy in Rajasthan is 86.7 per cent that is above the national average but the learning in terms of basic reading ability and basic numeracy has been poor. High percentage of schools reported separate toilet for boys and girls but about 30 per cent of the students reported that toilets are not usable. Inadequate toilets for girls have always proved to be one of the prominent factors for dropout of girl students. In this backdrop, 'educate girls' project was launched in Bhilwara district of Rajasthan through a development impact bond (DIB) - a variant of SIB that addresses the developmental needs of the society - to enrol the out-of-school/dropout girls and improve the learning component of both boys and girls in the remote and marginalized communities in Rajasthan.

Educate Girls, that served as the service provider in the project, is an NGO established in 2007 that works on 'Right to Education' with a special focus on mobilizing communities and resources for girls' education. In this programme UBS Optimus Foundation (UBSOF) served as the impact investor and Children's Investment Fund Foundation (CHIFF) played the role of outcome funder. The social issue addressed in the project was to enrol out-of-school girls and to improve literacy in English, Hindi along with improvement of numeracy among

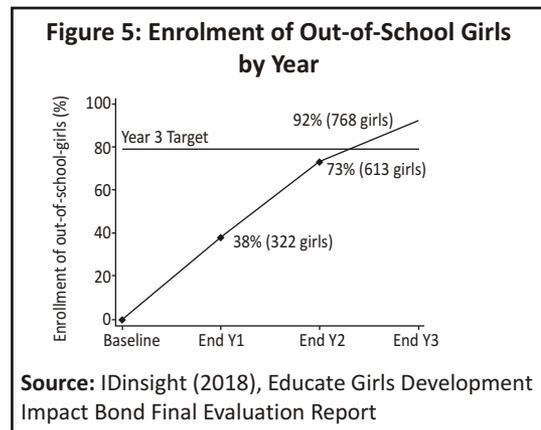
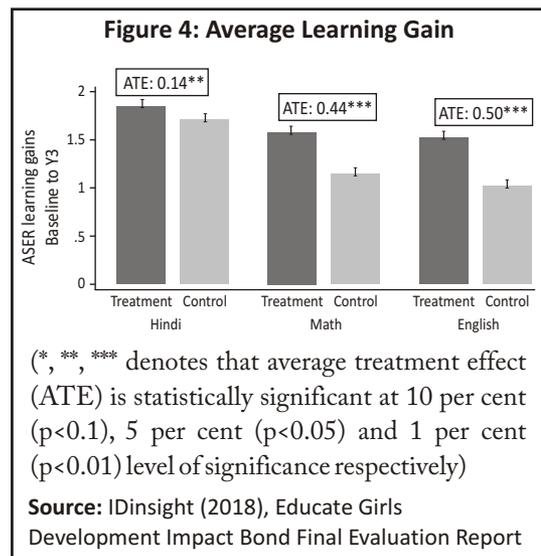
the children in Rajasthan. Various blocks in the Bhilwara district were identified as the location of implementation. The target was to reach 166 public schools from 144 villages in the district and to reach out to 15,000 children of which 9,000 are girls. Project cost for the service provider (NGO) *Educate Girls* was \$ 2,77,915 which is regarded as the upfront capital requirement of the bond. An organisation called Instiglio acted as the intermediary of the DIB mechanism and coordinated between all the actors and designed the scheme. The maximum outcome fund is decided to be \$ 4,22,000 that leads to an IRR of 15 per cent to the impact investor UBSOF. The flow of function and the mechanism of DIB is presented in Figure 3:



The outcome metrics of the DIB is objectively defined where the 20 per cent of the outcome payment was allocated for the enrolment based outcomes and remaining 80 per cent was allocated to the learning based outcomes. IDinsight worked as the outcome evaluator of the DIB. As the project is first of its kind in the education sector, the outcome of the project is important to scale up such investments in future. IDinsight has evaluated the project and the final evaluation results are available now. The outcome is truly encouraging for Indian policy and developmental sector. Pre-post comparison was done for the enrolment outcome that reports performance of 116 per cent of the target is achieved. The learning outcomes are assessed based on Annual Status of Education Report⁶ (ASER) tools using RCT as the evaluation method.

Randomized Control Trial (RCT) is a scientific methodology which is increasingly used in social science to understand the effect of a social intervention. The subjects participating in the trial are randomly allocated to either treatment group where the interventions are made, or to the control group that does not get the interventions. In the present case schools are randomly allocated to the treatment group that receives the programme interventions through *Educate Girls* and to the control group where no interventions are made. After the interventions, the Average Training Effect (ATE) is measured with the mean difference

in learning gains between students in treatment schools and students in control schools. The study reports the learning improvement of 160 per cent of the target. The evaluation outcome is reported in Figures 4 and 5. Table 3 presents the overall snapshot of the *Educate Girls* DIB



⁶ ASER is an annual survey that estimates childrens' basic learning and schooling status across states and rural districts in India. The survey is conducted every year since 2005.

Table 4: India Educate Girls DIB Factsheet

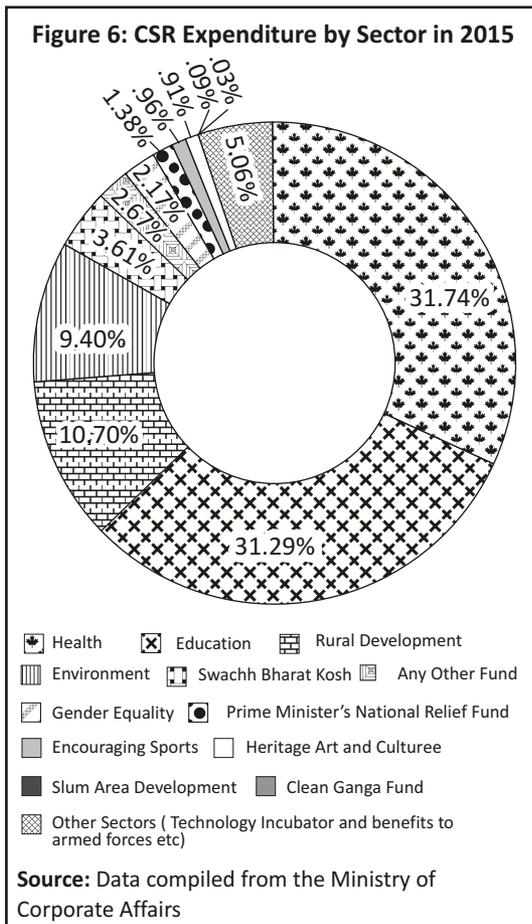
Impact Bond name: India <i>Educate Girls</i> DIB				
<p>Intervention <i>Enrolment</i>: Identification of out-of school girls through door-to-door surveys, explanation of the value of schooling, multi-channel engagement with households, multiple interventions to improve attendance and prevent drop-outs</p> <p><i>Learning</i>: Young volunteers deliver a child-centric curriculum 3 times weekly to boys and girls in grades 3-5.</p>				
Stakeholders				
Investor	Intermediary	Outcome Funder	Service Provider	Outcome Evaluator
The UBS Optimus Foundation (UBSOF)	Instiglio (project management, performance management)	The Children's Investment Fund Foundation (CIFF)	<i>Educate Girls</i>	IDinsight
Financing				
Outcome Fund (US\$)	\$ 4,22,000 (Maximum IRR of 15%) \$ 3,67,000 (Maximum IRR of 10%)			
Upfront Capital Commitment (US\$)	\$ 2,77,915			
Maximum potential loss (% of principal)	100%			
Outcome Metric	Enrolment outcome [allocated 20% of outcome payment]: number of girls on the school roster in grades 3 – 8 in the treatment group over the contract period Learning outcome [allocated 80% of outcome payment]: ASER based measure of literacy in Hindi, English and basic numeracy			
Outcome Evaluation Method	Baseline study for enrolment and ASER measures for learning outcome			
Payment Threshold	Payment is based on each additional unit of outcome and not based on any threshold			
Fund disbursement by investor (UBSOF)	50% of upfront capital in 2015 50% of the rest amount in 2016			
Fund disbursement by outcome funder (CIFF)	CIFF will disburse one outcome payment to UBSOF ranging from \$0 - \$4,22,000 in 2018			

Source: Data compiled from the report of Centre for Universal Education, Brookings Institution, (2017)

Conclusion

The success story of India Educate Girls DIB is encouraging. At present two other DIBs are in progress. One is India Educate DIB in Gujarat, Rajasthan and Delhi which is scheduled to get over by May, 2022. The other one is India (Rajasthan) Maternal and Newborn Health DIB, scheduled to be completed by December, 2020 (US Agency for International Development, 2017).

Results to date from these SIBs are not available but the increasing trend of financing social policy issues by private capital and earning a decent return - both in terms of finance and social impact - is very encouraging. This will lead to the standardisation of SIBs which is essential for the growth of SIBs and formal participation of the private players. In Indian context, the Companies Act 2013 mandates a class of companies to contribute 2 per cent of last three years' average profit to be spent on CSR activities. This is a handful of fund as the Ministry of Corporate Affairs put forth in 2015 that total 5097 corporates reported CSR expenditure of ₹9,822 crores. Governments have limited control on how these funds are utilised. Moreover, corporate houses are not always specialised in handling the issues in development sector. The interest of Indian corporate houses regarding CSR expenditure seems to be diverse (Figure 6). The figure is compiled from 2015 CSR expenditure data published by the Ministry of Corporate Affairs.



The way these funds are spent and the impact of these interventions are not known. On the other hand, SIBs are objectively designed where the accountability of the actor is high because of the financial incentives associated with the project. If the market of the social impact bonds become well-defined and standardised then corporates may act as outcome funders. Alternatively, corporates may be regarded as SPVs where the successful

SIBs may be liquidated by the outcome funders which may be government or any multilateral organization. If the SIBs across the world are studied and evidences of positive impacts are found, then government may come out with set of regulations about the corporate participation as the outcome funders/SPVs. The initial evidences suggest that SIBs have the potential for a paradigm shift in how the policy decisions are made and the way, so called non-economic developmental sector performs.

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