

Market-Based Solutions for Social Challenges

Dissertation

zur Erlangung des akademischen Grades

Dr. Rer. Pol

im Fach Wirtschaftswissenschaften

eingereicht an der

Universität Erfurt

Staatswissenschaftliche Fakultät

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urn:nbn:de:gbv:547-201900058

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Eingereicht am: 01.03.2018

Tag der mündlichen Prüfung: 24.10.2018

Abstract:

This accumulative dissertation, composed of six academic papers, contributes to the understanding of the impact investing ecosystem. The major part of the studies focuses on social and development impact bonds in different parts of the world (Europe, USA, Asia and Latin America). A second emphasis lies on the informal economy in Colombia and possible political/economic solutions through impact investing, e.g. microfinance.

Keywords: Data-Based Policy-Making, Impact Investing, Informal Economy, Public Policy, Social Impact Bonds.

Abstrakt:

Diese kumulative Dissertation, bestehend aus sechs Artikeln, untersucht die diversen Aspekte des impact investing ecosystems. Der Großteil der Studien befasst sich mit social und development impact bonds in verschiedenen Teilen der Welt (Europa, USA, Asien und Lateinamerika). Ein weiterer Fokus liegt auf dem informellen Sektor in Kolumbien und mögliche politische/wirtschaftliche Lösungen durch impact investing, z.B. Mikrofinanz.

Keywords: Data-Based Policy-Making, Impact Investing, Informal Economy, Public Policy, Social Impact Bonds.

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Introduction

Impact investing has the potential to create market-based solutions for social and environmental challenges across the globe. The basic idea of impact investing – a term coined in 2007 by the Rockefeller Foundation – is that an investment creates measurable positive social and/or environmental change in addition to a financial return (Bugg-Levine et al., 2011; Clark et al., 2014; Harji & Jackson, 2012). In this context, the innovation of this emerging investment market is not only the combination of financial and social returns on investment, but the measurement of the generated impact. Impact investing can be regarded as an evolution from other positive investment classes, such as socially responsible investments (SRI) or ethical investments which focus on high levels of environmental, social and governance factors (ESG) (Scarlata & Alemany, 2010). It offers a wide range of investment opportunities, such as debt, equity, microfinance funds, venture philanthropy or hybrid capital (Ormiston et al., 2015). The market

capitalization of the impact investing market is estimated between USD 107.2 billion (GSIA, 2016) and USD 101.4 billion (GIIN, 2017), which is still below JP Morgan's expectation to absorb between USD 400 billion and USD 1 trillion by 2020 (O'Donohoe et al., 2010). However, impact investing has shown a fast growth (GSIA, 2016).

Social impact bonds (SIBs) are one of the most promoted instruments of the impact investing market. The SIB model comprises three main stakeholders – private investors, the government and social service providers – who agree on the terms and conditions of the implementation of social programs with defined outcomes. This results in a tendency towards a data-based approach and data-driven policy-making by the government. Development impact bonds (DIBs) differ from the SIB model in that the outcome payer of a successful social project is not the government, but a private organization. The first DIB was implemented in India in 2015.

The principle of targeted intervention programs with a measurable impact on society or the environment can be applied on a global level and offers a solution to problems the government alone cannot address adequately due to limited financial resources and rigid public policy strategies. In total, there are 89 impact bonds implemented which raised USD 322 million (Social Finance UK, 2017). However, the major share of the impact investing market is based in Europe and North America (Jackson, 2013). This thesis presents an extensive literature research on the emergence of the impact investing market and especially SIBs in the U.K. as well as their adoption and development in Germany and the United States. Furthermore, it explores the opportunities and challenges of impact investing in the Asian region, especially Japan and Singapore, and the implementation of SIBs and DIBs in the three Latin American countries Mexico, Colombia and Chile. The methodological approaches include a proposed impact investing ecosystem framework and the policy transfer approach by Benson (2009).

Moreover, this study examines the urban informal economy and street vending in Colombia, a particular socioeconomic problem, where the impact investing market can provide a solution. The methodology includes several questionnaire surveys that deliver primary data on the financial status and business practices of street vendors. These surveys can not only be used to analyze the underlying causes of poverty among people at the bottom of the social pyramid, but also as an assessment tool for the impact of an intervention.

This thesis comprises five papers and one data article. Earlier versions of most of the papers have been presented at international conferences.

The first paper entitled “The Emergence of Social Impact Bonds in England and its Adaptation in USA and Germany” was presented at the ECPR General Conference 2015 in Montréal, Canada under the original title “Market-based Solutions for Social Challenges: A Collaborative Policy Making Strategy”. Furthermore, it was published via the research gate

in 2015, where it has been downloaded over 400 times already. The paper examines the origin and development of the impact investing market in the U.K., with a special focus on one of its most promoted instruments: social impact bonds. Furthermore, it explains the multi-stakeholder concept of SIBs to face increasing social challenges and highlights the associated risks and opportunities for the government. Three case studies are used to demonstrate how SIBs have been adopted and adapted by different governments, namely the U.K., the U.S. and Germany. Following the basic principle of impact investing, SIBs are designed to create both financial and social impact. The paper points out that the offered social service programs target a specific problem in society or the environment and tend to be preventative instead of reactive, focusing on long-term effects. However, the real innovation is that the achieved impact of these programs has to be measured, which allows for data-driven policy making. The conclusion is that SIBs promote social change through long-term, outcome-based

prevention programs, while also gaining a financial return.

The second paper with the title “A Proposed Framework to Analyze the Impact Investing Ecosystem in a Cross-Country Perspective” was written in collaboration with Min-ni Wu from the Willy Brandt School of Public Policy at the University of Erfurt, Germany. It was presented under the title “The Impact Investing Ecosystem in Japan and Singapore“ at the 24th International Scientific Conference on Economic and Social Development - "Managerial Issues in Modern Business" in Warsaw on October 13th and 14th 2017. This paper focuses on the assessment of the impact investing ecosystem on a national level and in a cross-country perspective. For this purpose, an innovative framework has been developed. The proposed assessment tool is based on an entrepreneurial ecosystem approach (Babson Entrepreneurship Ecosystem Approach) and adapted to the Social Impact Investment Framework by the OECD. The resulting “impact investing ecosystem framework”

complements the analytical approaches of the two previous methods and combines the most suitable sets of parameters to evaluate the essential aspects of the impact investing market. This new framework is then applied to examine the challenges and possibilities of the expansion of the impact investing market in the Asian region, where the concept is still relatively new and the academic research on the topic is limited. Japan and Singapore are used as case studies and compared with the U.K. as a reference for impact investing practices. The results show that both Japan and Singapore would benefit from impact investing, though in different aspects, and that they have generally enabling environments for the development of its market. Taking into account the elementary role of public policies in this process, the paper concludes with individual policy recommendations for each country. The core message is that the developed impact investing ecosystem framework can be used to identify and influence every determinant of the impact investing

ecosystem and as a way to catalyze the growth of the market.

The third paper with the title “Impact Bonds in the Latin American Context: Policy Transfer Analysis for Mexico, Chile and Colombia” was written in collaboration with Luis Angel Tellez Live from the Willy Brandt School of Public Policy at the University of Erfurt, Germany. It was presented at on Oct 20, 2016, at the 17th International Scientific Conference on Economic and Social Development: Managerial Issues in Modern Business, Warsaw, Poland and published at TARGET – Universität Erfurt on January 3rd, 2017. The paper examines the market for social impact bonds (SIBs) and development impact bonds (DIBs) in Mexico, Chile and Colombia, where first pilot projects have already been designed, but not yet implemented at the time of research. Using the policy transfer approach by Benson (2009), this study identifies and analyzes the distinct constraints that hinder the adoption of impact bonds in the three pilot countries in Latin America. Furthermore, the paper gives an overview of the characteristics of the SIB

and DIB models. The results of the comprehensive analysis show that the major obstacles for the impact bonds market in the three Latin American countries are the politicization by interest groups in Mexico, political cycles in Colombia, and the level of the government's centralization in Chile. The conclusion is that the identified constraints should be addressed adequately by the local policy makers and that a more insistent promotion of both SIBs and DIBs is recommended.

The fourth paper entitled “Debt Portfolios of the Poor: The Case of Street Vendors in Cali, Colombia” has been elaborated in collaboration with Lina Martinez, director of the Observatory of Public Policy - POLIS at the Universidad Icesi in Cali, Colombia. It was presented at the SGEM International Conferences on Social Sciences on March 2017 in Vienna. As well as at the “19th International Conference on Population and Development” in Paris 2017. This paper has been sent for revision at the journal “Sustainable Cities and Society” on October 4th, 2017. The paper investigates the urban informal economy in Cali, the

third most populous city in Colombia, with a focus on street vending. Based on the results of two questionnaire surveys carried out between 2014 and 2016, it examines the socioeconomic background and the debt portfolio of street vendors at two distinct vending sites. The results show that street vendors usually belong to socially and economically vulnerable population groups at the bottom of the social pyramid who are excluded from the formal banking system. The study also finds that they earn a higher income than the average working age citizen, but lose most of their earnings due to high interest rates of payday-loans offered by loan sharks. This creates a vicious circle of indebtedness and poverty. The conclusion is that access to regulated financial structures with fair credit options can be an effective policy strategy to reduce poverty among street vendors and increase their quality of life. The introduction of the impact investing market in Colombia, and especially the promotion of SIBs, can offer the necessary capital and mechanisms to target this problem.

The fifth paper entitled “Debt portfolios of the poor: Survey Data from Street Vendors in Cali, Colombia” presents the database of a questionnaire survey with 68 questions on indebtedness and access to credit institutions. The survey was carried out on 300 randomly selected street vendors at two street vending sites in Cali, Colombia in 2016. The data article outlines all the relevant background information about the urban informal economy in Colombia, the methodology of the survey and the gathered data. It has been sent for revision to the journal “Data in Brief” on November 11th, 2017.

The sixth and final paper of this study is titled “A Proposed Credit Risk Assessment for People at the Bottom of the Social Pyramid in Cali, Colombia” and was also written in collaboration with Lina Martinez from the Universidad ICESI in Cali, Colombia. It proposes a questionnaire survey with 62 questions on quality of life, financial status and indebtedness. This survey can be used as a tool to assess the individual credit risk among poor people in Colombia and reduce information asymmetries. The goal is to

incentivize the financial inclusion of the poor, which in turn can reduce poverty and increase the quality of life. Furthermore, the assessment tool can be used by the government or impact investors to develop outcome-based intervention programs.

The Emergence of Social Impact Bonds in England and its Adaptation in USA and Germany¹

Juan David Rivera Acevedo²

Abstract:

This paper analyzes Social Impact Bonds (SIBs) and their potential to align the interests of social entrepreneurs, the government, and financial markets in a collaborative policy-making strategy. It focuses on the emergence of the social investment market in the U.K., the key stakeholders in an SIB

¹ An early version of this paper was presented at the ECPR General Conference 2015 in Montreal, Canada by the name “Market-based Solutions for Social Challenges: A Collaborative Policy Making Strategy” and Published at Research Gate on Aug 2015. Over 400 times downloaded and commented by experts. DOI10.13140/RG.2.1.2960.5203

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and the risk and opportunities for the government in the model. It also examines how SIBs have been adopted by the U.S. and Germany. The conclusion is that SIBs promote social change through long-term, outcome-based prevention programs, while also gaining a financial return. Nevertheless, the level of profit-orientation is determined by the path-dependency of the respective governmental institutions.

Keywords: Data-Based Policy-Making, Impact Investing, Public Policy, Pay for Success Contracts, Social Impact Bonds.

I. Introduction

Cities and states around the world are facing increasing budgetary deficits and are often overwhelmed with the financial burden associated with social issues. The political cost to allocate public funds to solve these problems is especially high because social programs do not guarantee success in the elective term. This causes a rigidity in the public budgets. Most of the social programs supported by the government tend to be reactive instead of preventive, which results in high expenses with only few effects in the long term. For example, public policies to address an issue like homelessness mostly provide support services that mitigate the consequences of homelessness. In this case, the emerging expenses, such as temporary shelters, public medical services, police or human resources absorb funds from other social programs that actually target the cause of the problem. Meanwhile, several social sector organizations provide innovative, preventative programs. However, to scale upwards, these interventions

require greater cash-flow stability than current philanthropy provides, leaving the burden on the government to identify and expand such programs. This distortion between innovative social service providers and government risk-aversion prevents vulnerable populations from receiving the critical services they need.

Social Impact Bonds (SIBs) are meant to solve the above-mentioned distortion by bringing together private investors and social service providers in the design and implementation of prevention programs that target the underlying causes of specific social problems. The SIB model emerged in the U.K. and has been adopted by different nations such as the U.S., Germany, Australia and the Netherlands. This paper uses a case approach in order to study how the model has been integrated into the respective economic, social and political systems, and how this adaptation has affected its performance in achieving social outcomes along with a financial return.

The first section of this paper analyzes the emergence of social investment and the SIB model in England. The second section assesses specific cases of SIBs in the U.K. and in the early adopter countries, U.S. and Germany, in order to determine the differences in the adaptation of SIBs as a public policy instrument. The third section presents the risks and opportunities that the SIB model implies for the government in the selected cases. The fourth section presents the conclusions.

II. Theoretical Framework

a. The Emergence of Social Investment in England

During the past decades, numerous countries have experienced structural changes concerning their role to deliver services to their citizens. These changes have been characterized by a predilection for market deregulation, which prioritized tax reduction and privatization over centralized models of welfare state (Edwards, 2011, 2012). Approaches such as “New Public Management” (Hood, 1991) or “Reinventing

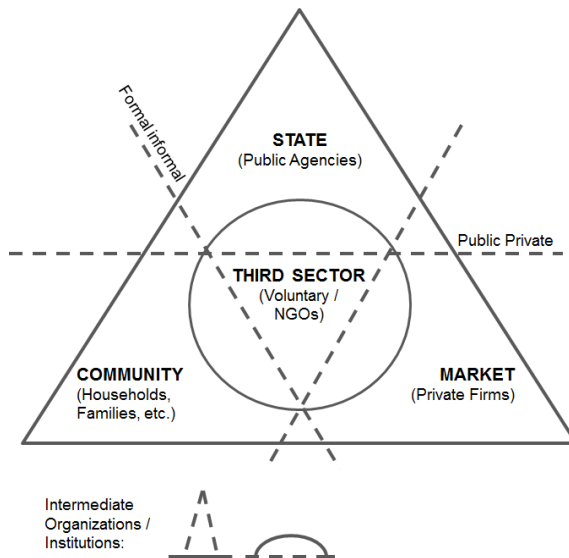
Government” (Osborne & Gaebler, 1993) intended to transform the state into an entity that is capable of achieving the same levels of productivity and efficiency as a best-run private company.

This makeover, driven by a “more efficient use of scarce public resources”, encouraged market-based models of welfare delivery, which led to the introduction of tendering processes in areas that used to be state responsibilities (McHugh et al., 2013). In this context, the so called “third sector” delivered welfare goods and services, and showed an exponential growth (Allen, 2009; Millar, 2012).

The “third sector” is hard to define due to its diverse organizational structure and wide-ranging purposes. The third sector is usually defined as the combination of different social sector organizations, which are non-profitable and self-governing, remain institutionally separate from the state and receive voluntary member contributions (Phillips & Hebb, 2010; Salamon et al., 1999). However, this definition rejects the fact that the third sector can also be profit-

oriented. As seen in figure 1, and for the purpose of this research, this sector is identified as an intermediary between the public and private sector, with the capability to be both for-profit and not-for-profit (Kenny, 2013; Pestoff, 1992).

Figure 1: Pestoff Triangle



(Source: Pestoff, 1992)

Changes concerning the funding of third sector organizations reshaped their strategies. Traditionally, philanthropic donations, charitable

foundations and government grants provided one-way finance to social sector organizations (Kingston & Bolton, 2004). In Western Europe, the allocation of public resources was transformed towards contracts and payments. In the U.S., public grants were heavily reduced while the commercial income of the third sector simultaneously increased (Defourny & Nyssens, 2010a).

The transformation of some third sector organizations into business-like entities created the potential for new revenues and investment streams. This new investment niche emerged as “social investment”³, which can be traced back to policy makers in the U.S. and the U.K. in the 1990s (Benjamin et al., 2004). This movement started in the UK in 1997, when Community Development Finance Institutions (CDFIs), such as the “Phoenix Fund Services”, were encouraged to direct significant

³The term social investment refers to a monetary investment in a social policy initiative, providing the investor a “double bottom line” with financial return while still delivering public welfare services (Alter, 2000; Emerson, 2003; Grant, 2012; Kingston & Bolton, 2004; Manetti, 2014)

investment funds towards the third sector in order to promote community development and cover a market that had been uncharted by conventional financial institutions (Kneiding and Tracey, 2008).

Under the Labor Party in 2000, the U.K. government extended the CDFIs' movement and funded the Social Investment Task Force (SITF). The SITF was an advisory body to the U.K. government from 2000 to 2010 and was chaired by Sir Ronald Cohen, a traditional venture capitalist. The aim of the SITF was to enhance economic regeneration by generating novel sources of private or institutional investment for entrepreneurial practices where the voluntary sector, businesses and government could play as partners (SITF, 2000). In the same way, the Council on Social Action was created with the aim to bring together innovators from the different sectors to generate ideas for communal development. It was in this council that the initial idea to link the outcome of social programs with financial returns emerged (Cabinet Office UK, 2007; Nicholls & Tomkinson, 2013).

During the 2007 bank debt crisis, many governments, including the U.K., decided to address the recession by introducing major austerity programs. In this context, the third sector had the opportunity to expand within the public sector (Manville & Broad, 2013; Phillips & Hebb, 2010; Smith, 2010). In the same year, the SITF successfully lobbied for legislation and enabled the liberation of £250m of liquid finance from dormant accounts in the U.K.; in July 2011, it set up the launch of Big Society Capital to support the development of a sustainable social investment market (Big Society Capital, 2012; Cabinet Office UK, 2014). The idea of data-based policy-making along with new sources of direct investment became very attractive and gained political momentum.

The approval of this development was strengthened by the emergence of impact investing. The term “impact investing” was coined in 2007 as the Rockefeller Foundation launched an initiative to build up a “worldwide industry” where investments do not only seek for financial returns but also for social and

environmental impacts (Harji & Jackson, 2012, p. 1). These investments, adopting both non-profit and for-profit instruments, supplemented traditional philanthropic donations and government grants to foster social progress (Bugg-Levine & Emerson, 2011).

In 2010, British Prime Minister David Cameron introduced the ideology of the “Big Society” as his cornerstone policy to target the establishment of a social investment market (Cabinet Office UK, 2014; Harris, 2011). In that same year, Social Finance, a not-for-profit organization, launched the first Social Impact Bond (SIB) in Britain. The organization signed a contract with the U.K. Ministry of Justice to reduce prison recidivism rates in Peterborough, a prison outside London with a history of high recidivism (Shufelt, 2012). To fund the program, Social Finance raised £5m from 17 different social investors, who would make a profit of up to 13% of their investment, but only if the recidivism rate dropped by more than 7.5% within six years.

Since Peterborough, the SIB concept expanded across the world and garnered support from numerous political parties and countries, including the U.S and Germany. During the G8 Summit in Enniskillen in June 2013, David Cameron called upon the different governments, social actors and the private sector to “*evaluate the potential and practicalities of social investing as an innovation catalyzer that could help unravel some of society’s most pressing issues*”, and established the Social Impact Investing Task Force (SIITF) (SIITF, 2014). Even though the social investment market is still in early stages, it has achieved international acceptance by governments around the world which are using, or are planning to use it in addition to their traditional social policies.

b. Understanding Social Impact Bonds

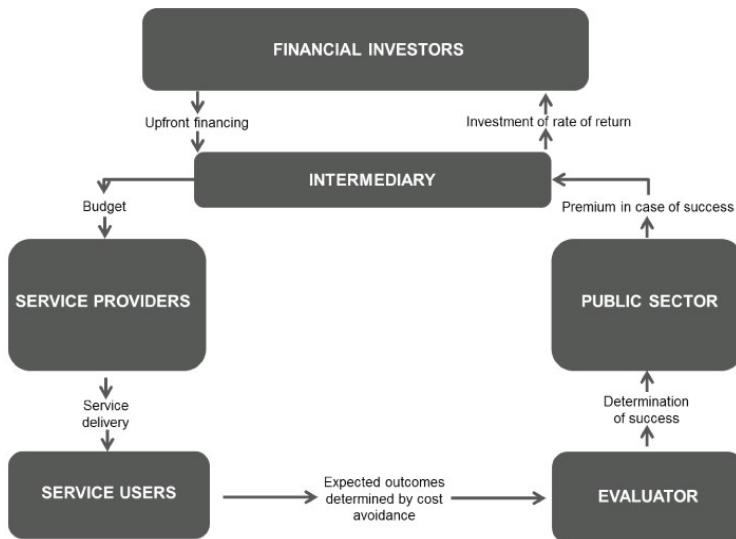
Based on the desire to reduce a social problem, e.g. homelessness or prison recidivism, a partnership between social service providers, government, investors and an intermediary is formed to agree on

an investment structure, including the desired program outcomes (e.g. a drop of at least 10% of the prison recidivism rate). Once the targets are set and a credible counterfactual⁴ is formulated, private investors provide the upfront capital to the service providers to scale up the program. This capital secures the delivery of the intervention to service users, regardless the targeted outcomes. During and after program implementation, independent validators conduct rigorous tests to assess whether the targeted outcomes have been achieved or not. Depending on these evaluations, the government pays back the investors the principal plus a rate of return. This means that if the targeted outcome cannot be achieved, the government does not pay and the investors lose out on their capital. However, if the outcome is positive, the government pays back the investors, but is still expected to save resources, for example through a lower demand for beds in prison or homeless shelters. Indirectly, these

⁴An estimate of what outcomes would have been achieved without the intervention.

reduced expenses could be used to repay, at least in part, the SIB. Furthermore, the entire society profits from the achieved positive externalities, such as more security or less poverty (see figure 2).

Figure 2: General structure of a SIB



(Source: author)

The concept of connecting measurable positive social impact with financial returns is a simple idea with significant implications for society as it creates enormous market opportunities and enables social innovation in local communities. Social Impact Bonds

(SIBs) are among the newest financial instruments⁵ in the impact investment market. SIBs attract capital to tackle social challenges, creating shared value for the government, investors and non-profit service providers through a multi-stakeholder partnership (McKinsey & Company, 2012; World Economic Forum, 2013). In theory, this instrument enables the government to deliver better outcomes at a lower cost without jeopardizing taxpayers' resources. The investors experience a double bottom line gain as they receive a reasonable financial return for their investment, but also a social profit (Palandjian & Schaeffer, 2014). Furthermore, SIBs promote preventative interventions rather than reactive programs. Finally, the non-profit service providers gain scale capital to grow their business while benefiting underserved communities and individuals (Eccles, 2014).

⁵SIBs behave like equity products which pay out financial returns only if the expected outcomes were met, in contrast to a traditional financial bond where the holder receives a fix interest rate until maturity.

Traditional procurement processes and grants require social service providers to be accountable for certain inputs and outputs of their programs. However, there is no focus on the outcome⁶, e.g. the effect on the lives of the service users. One of the most important innovations of the SIB model is the aspect of contracting by outcomes. That way, the social service providers can be held accountable for the real social value their programs created. Another main characteristic of SIBs is the collaboration of the different stakeholders (government, social service providers, investors, service users and evaluators) in the design and implementation of outcome-oriented prevention programs.

⁶Understanding the difference between inputs, outputs and outcomes is easier with an example: Imagine you were in a hospital. The inputs are the number of doctors, the output they provide is the number of operations, whereas the expected outcome is the overall improvement in health of the patients.

In theory, governments could save more money if they directly borrowed from the capital markets at lower interest rates and invested in prevention programs. However, the political risk associated with the investment of public funds in programs that might fail is very high because of the potential accusation of wasting taxpayers' resources. This is one of the reasons why it is not common for governments to make direct investments in innovative models of social service delivery.

SIBs present a good opportunity for the government to promote innovation. According to the SIB model, government resources only come into play if there is evidence that the SIB-financed services accomplished the expected social outcome, which means that the financial risk is transferred to the private investors⁷. Government commissioners have the incentive and obligation to meet the expectations of their electorate concerning social

⁷In the case of the Newpin Social Benefit Bond (same as SIB) in New South Wales, Australia, the government would repay part of the private investment even if no positive outcomes are achieved.

improvement and an increase in quality of life. SIBs offer the government the opportunity to channel private investments for this purpose, and gradually shift the use of state resources from reactive to prevention programs. The overall goal is to reduce social problems in the long term and in a cost-effective way.

III. Methodology and Cases

In this study, a case approach was used. The original SIB model from the U.K. has been adopted and adapted by different nations around the world. By the time of this research, the U.S., Germany, Australia and the Netherlands have had at least one operational SIB. In order to study how existing SIBs work in the real world, the evolution of specific cases was examined and provides insight into how economics, politics and institutions affect the potential and performance of SIBs to achieve social outcomes. However, the inevitable risk of case studies is that the selection of cases could be unrepresentative, and that the derived standards are too generalized and biased. This paper studies three

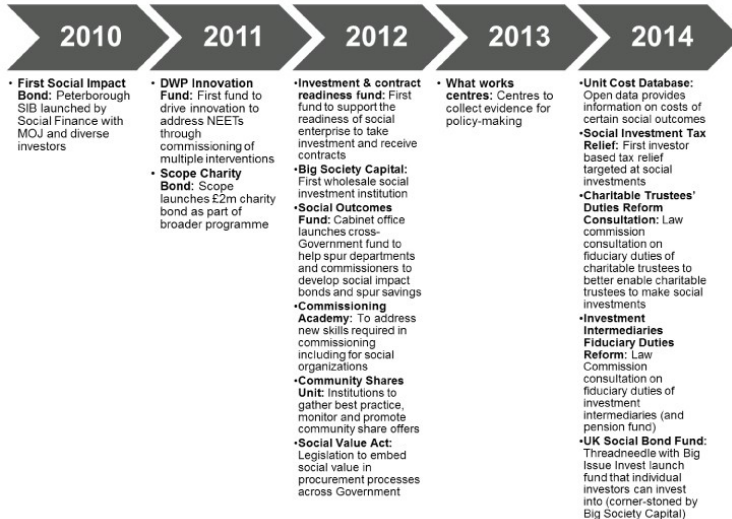
SIBs, which are set in different countries and therefore belong to different political, economic and cultural backgrounds. The basic criteria for selecting these cases was access to reliable data. The purpose of this study is to contribute to the understanding of SIBs and their adaptation as a public policy instrument in different national settings.

The cases studied include the Ambition East Midlands partnership for young homeless people in Britain, the Salt Lake City high quality pre-school program for economically disadvantaged children in the U.S. and the pilot SIB project in Augsburg, Germany, which was designed to help disadvantaged adolescents find employment and apprenticeship opportunities.

a. Britain

The U.K. has been the pioneer in the development of social impact bonds and the social investment market. However, as displayed in figure 3, there have been several key innovations since the launch of the first SIB.

Figure 3: Key developments in the social impact investment market in the UK



(Source: NAB UK, 2014)

The first SIB was developed under the premise of creating social benefit and reducing state expenses at the same time. It was grounded on a data-based calculation of the costs of a defined social problem. To be specific, in Britain, a youth offender costs the state around \$34,600 (£21,268) per year, while a data-based intervention designed to prevent reoffending costs around \$11,400 (£7,000) (Cabinet Office UK, 2014c). Knowing the true cost of a

specific social outcome could provide incentives to social service providers to develop interventions that are capable of achieving the same or better outcomes at lower expenses (Eccles, 2014a). Hence, one important innovation was the creation of the Unit Cost Database in 2014, which calculates the price of negative outcomes for the government, and promotes a more effective measurement and analysis process of the social service delivery.

Another significant innovation was the Social Investment Tax Relief (SITR) regulation in 2014, which encourages individuals to support social enterprises through tax reliefs. Individuals, who invest in organizations with a defined and regulated social purpose⁸, can deduct 30% of the cost of their investment from their income tax liability. Individual investors can invest up to £1m per social

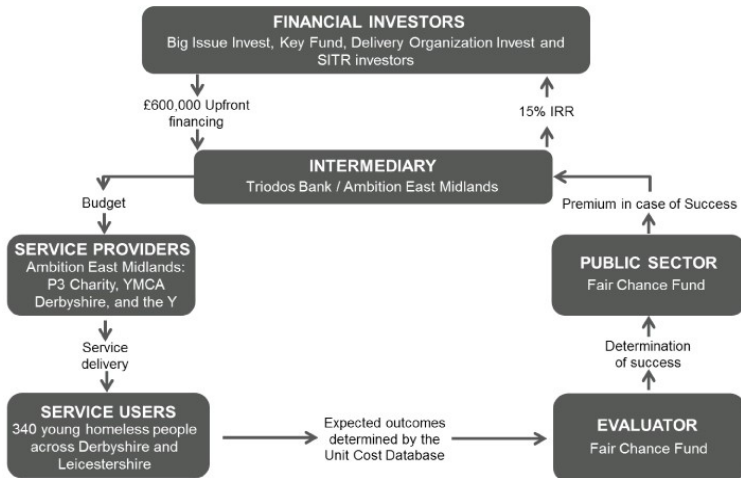
⁸Other eligible organizations include charities, community interest companies or community benefit societies delivering qualifying trade, fewer than 500 employees, and gross assets of no more than £15m (Cabinet Office UK, 2015).

enterprise. (Cabinet Office UK, 2015)

Furthermore, the British government established the Fair Chance Fund (FCF) in 2014 as part of the Department for Communities & Local Government (DCLG) and the Cabinet Office, which commissions Payment by Results (PBR) contracts. The FCF addresses some of the key issues contributing to homelessness amongst 18-24 year-olds. A total funding of £15m has been allocated by the DCLG for front line organizations to support this target group with accommodation, education, training and employment over a three-year period (Cabinet Office UK, 2014a).

Ambition East Midlands (AEM) was the first Social Impact Bond to benefit from the Unit Cost Database, the Social Investment Tax Relief and the Fair Chance Fund. The AEM consortium is formed by P3 Charity, YMCA Derbyshire, and the Y. Their aim is the improvement of accommodation and employment options for young homeless people, who are neglected by existing services. Since this

target group often falls through the social safety net due to the complex and interlinking problems they experience, they receive insufficient support, resulting in a high risk of getting involved in crime, substance abuse or long term benefit dependency (Big Issue Invest, 2015). AEM believes that these young adults deserve a fair chance, and that with the right support everyone can play a positive part in their communities and live fulfilling lives.

Figure 4: Structure of Ambition East Midlands SIB

(Source: author)

On behalf of the UK government, the AEM SIB was signed between the DCLG, the Cabinet Office and the AEM consortium for a three year period (January 2015 to January 2018). The awarded maximum contract value is £2.95m as part of the FCF program. Triodos Bank was commissioned with the performance management for the first six months of the contract, until full operational capability of the consortium. This administrative role

includes ensuring that the SPV⁹ is set up correctly, processing the claims for outcome payments, and creating the reporting structure for investors in order to ensure that cohort recruitment and delivery is on track. However, the idea is to build capabilities among social service providers to contract SIBs in the future, without the need of an intermediary. The managing board of the AEM SIB includes three provider representatives, an independent chair and two investor representatives (see figure 4).

The social service providers divided the corresponding geographic area to improve the service: P3 works in Derbyshire, YMCA Derbyshire works in Derby City and the Y works in Leicestershire and Leicester City. Together they offer innovative and intensive support for 340 of the most vulnerable young homeless people across

⁹“A special purpose vehicle (SPV) is a legal entity that is created solely for a particular financial transaction or to fulfill specific objectives. Investors’ funding is channeled into the SPV, which enters into a contract with the commissioner. The SPV then acts as the delivery body for the intervention and SIB through an appointed director” (Cabinet Office UK, 2013)

Derbyshire and Leicestershire (AEM, 2015). Given their greater resources and past experience operating similar pay-by-results contracts, P3 led the consortium's strategic planning. Their tasks involved the recruitment of all key staff members, including the Project Delivery Manager, and an agreement with the local authorities on the referral of service users (P3, 2015). Referrals are directed to one of the three organizations primarily based on geography, but the consortium utilizes their specific skillsets to provide the most appropriate service for a particular individual – for example, the Y and YMCA have a larger stock of short-term accommodation to deal with emergency presentations, but P3 has more access to the private, long-term accommodations market and greater experience in providing services to those with acute mental health or substance issues (Big Issue Invest, 2015). Each client is referred to a link worker, who will supervise them over the course of the program and help them develop the skills, knowledge, responsibility and confidence

necessary for independent living.

The Unit Cost Database determined the expected outcomes and the price for this service. According to this database, the local authorities have an annual expenditure of £8,605 per homeless person and £4,257 for a person between the age of 18-24 with no employment, training or education (New Economy, 2015). Based on these calculations and a detailed needs-assessment across the region, AEM determined the probability of a service user to achieve the desired project outcomes. Table 1 shows the expected performance of the AEM project (based on a percentage of the anticipated 340 person cohort to achieve outcomes across the duration of the project) and the agreed costs for the commissioner, which is significantly lower in comparison to the cost of negative outcomes for the government.

The AEM SIB attracted the investment from both socially and financially motivated investors such as Big Issue Invest, KeyFund, Delivery Organization

Invest and investors under the Social Investment Tax Relief regulation. 55% of the investment was made by Big Issue Invest (£330,000) and 16% by Big Society Capital (£100,000), through SITR. The total amount was £600,000. However, the exact amount invested by each investor has still not been published at the time of this research. In case of success, the investors expect an internal rate of return (IRR) of up to a 15%.

Table 1: Expected outcomes and value per outcome AEM SIB

Outcome	Final Bid Outcome Tariff	% of Cohort Expected to Achieve Outcome – AEM Average
Assessments:		
Initial assessment	£500	100%
Second assessment	£500	81%
Third assessment	£200	73%
Accommodation:		
Move into accommodation	£425	81%
Accommodation sustained for 3 months	£1,275	74%
Accommodation sustained for 6 months	£1,275	71%
Accommodation sustained for 12 months	£1,275	64%
Accommodation sustained for 18 months	£1,275	61%
Education / Training:		
Entry into Education or Training	£425	45%
First Entry Level Qualification	£1,275	17%
First Level 1 Qualification	£2,125	29%
First Level 2 Qualification (or equivalent)	£2,975	18%
Employment:		
6 weeks volunteering (6 to 16hrs)	£425	41%
13 weeks volunteering (6 to 16hrs)	£425	27%
20 weeks volunteering (6 to 16hrs)	£213	0%
26 weeks volunteering (6 to 16hrs)	£213	0%
Entry into Employment	£425	39%
13 weeks P/T Employment	£2,550	8%
26 weeks P/T Employment	£1,700	6%
13 weeks F/T Employment	£3,825	29%
26 weeks F/T Employment	£2,975	21%

(Source: Big Issue Invest, 2015)

b. The United States

The U.S. is characterized by its market-based and free enterprise culture. According to Pollitt & Bouckaert, the U.S. has a strong anti-government rhetoric and low public trust, hence, both Republicans and Democrats approve of more business-like government practices (2011). With this rhetoric in mind, the outsourcing of governmental responsibilities has been common practice; from contracts for general services, e.g. prison management, to core governmental and statutory functions, e.g. policy-making or education (Durant et al., 2009). SIBs - or Pay-For-Success (PFS) contracts, as they are commonly referred to in the U.S. - fit perfectly into this culture.

The SIB concept has been rapidly adopted by several entities in the US. The Department of Justice and the Department of Labor allocated funding to develop PFS contracts with the aim to reduce crime recidivism. Additionally, the Department of the Treasury and the Obama administration provided \$300m to help state and

local governments to implement PFS contracts. The initial funding allowed the establishment of the Harvard Kennedy School Social Impact Bond Technical Assistance Lab (Harvard SIB Lab) in 2012, which has been a cornerstone of the development of the SIB market in the US. By the time of this research, two legislations that promote PFS schemes are proposed at the federal level, “The Social Impact Bond Act (HR 4885)” and the “Pay-For-Performance Act (S 2691)” (Social Finance, 2015).

One of the areas identified for pay-for-success contracts is high-quality early education for disadvantaged children. Income inequality and a lack of opportunities for underprivileged kids and families has increased in the U.S. (Stiglitz, 2012). Studies show that out of 100,000 3- to 4-year-olds in Utah, 36% belong to economically disadvantaged families and have no access to high quality Pre-K education. (United Way of Salt Lake, 2015). Due to these bad preconditions, these children are 25% more likely to become school

dropouts, 60% more likely to be arrested and 70% more likely to never attend college. In contrast, children who receive high-quality early education tend to start school on track and stay on track. They are also more likely to receive higher education and have a higher income than their counterparts (ibid). The investment in early education can contribute to closing the gap between economically advantaged and disadvantaged children, increase the quality and quantity of human capital available, and also reduce the government's cost for remedial interventions, such as special education and welfare benefits.

“Voices for Utah Children” completed a study, in which 737 economically disadvantaged children from the Granite School District were assessed over three years using the Peabody Vocabulary Test¹⁰. It indicated that, on average, underprivileged 3-

¹⁰Test to provide a quick estimate of verbal ability and scholastic aptitude.

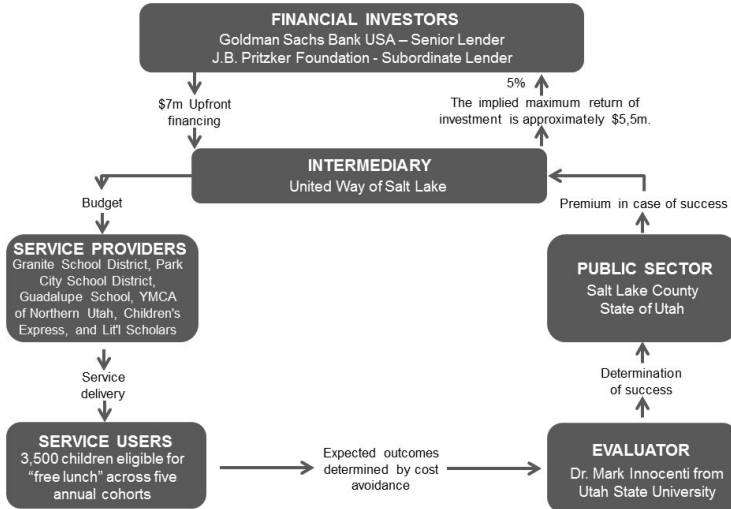
year-olds knew 500 words, whereas more privileged children of the same age knew up to 1,100 words. Based on this result, 238 kids needed support and special educational programs. After attending a high-quality preschool program, only 11 (5%) of them still needed special education programs. Furthermore, the gap between the two groups of children was closed as the underprivileged preschoolers achieved 78% and 76% proficiency in language and mathematics, which equals the results of the average student in Utah (78% and 78% respectively) (Voices for Utah Children, 2011).

Under these premises, the first ever SIB to finance early child education was created, the Utah High Quality Preschool Program. The impact bond was launched by the State of Utah and the Utah Salt Lake County. The United Way of Salt Lake served as the intermediary. The service delivery started on August 1st, 2013. The core idea was to develop a tailored high impact curriculum for disadvantaged children between 3 and 4 years old, many of whom have English as their second language, to

increase school readiness and academic performance and thereby reduce the need of expensive special educational programs.

To deliver this intervention, the social service providers were divided into two sections. On the one hand, Voices of Utah Children and the Granite School District provided research and analytic support, as well as training and professional development. On the other hand, the actual providers of the intervention were the Granite School District itself, Park City School District, Guadalupe School, YMCA of Northern Utah, Children's Express, and Lit'l Scholars (see figure 5).

**Figure 5: Structure of the Utah High Quality
Preschool SIB**



(Source: author)

Concretely, the J.B. Pritzker Foundation provided \$2.4m to the intermediary (United Way) as subordinate lender. Goldman Sachs Bank USA invested \$4.6m as senior lender. The initial funding was \$7m. If the preschool program proves to be ineffective, the subordinate lender will only be paid after the senior lender receives the principal and interest back. Subsequent investments can be

made based on the repayments made by the public entities. The expected rate of return is 5%. However, it is not clear if the rate is annualized or not. The implied maximum return of investment is approximately \$5.5m.

The following will explain the financial appeal of the AEM SIB to the government. The governmental expenditure for remedial services and special education in public schools (k-12) amounts to \$2,700 per child per year. The SIB contract provides that until the achievement of the initial investment (\$7m) plus the rate of return of 5%, the repayment cost for every successful intervention is \$2,565 per child per year (corr. 95% of the actual cost for remedial services). Afterwards, the payment drops down to \$1080 per child per year (corr. 40% of the cost for remedial services) (Learmonth & Sainty, 2015). According to the agreement, if 95% of all the program participants avoid special education, the program achieves a 100% rate of success. In this case, the total amount of repayment cost is estimated around \$27m over

twelve years and five cohorts. However, the government would still have to cover the cost of special education for the remaining 5% of participants, which amounts to around \$3m in the same period. In the best scenario, the total cost for the government could be around \$30m with the help of the SIB; in contrast to around \$58m without the SIB (only for remedial services and special education in public schools).

c. Germany

The public services management and political context in Germany differs from the U.S. and the U.K. Germany belongs to the so called “corporatist” group of countries, where intermediary bodies play an important role in the management and provision of social services (Defourny & Nyssens, 2010). So far, changes in the German public management have emerged from within the public sector and were aimed to improve the existing system (Pollitt & Bouckaert, 2011). The reforms targeted budgetary controls and public modernization rather than marketization or state-reduction (Derlien,

1998). According to Salamon et. al, Germany is characterized by a significant presence of non-profit private organizations concerned with the delivery of social services that are mainly financed and regulated by public entities (2004).

Despite the country's well established welfare system, the amount of resources available for prevention, innovation, and expansion within the social sector is significantly lower in comparison to statutory funded areas of the social system (National Advisory Board (NAB) Germany, 2014). This facilitates the adoption of impact investment and SIBs. In Germany, SIBs are regarded as an additional source of capital for social programs, rather than a competition to the welfare state.

Statistics presented by the German employment agency (Bundesagentur für Arbeit) show that by 2014, Germany had around 2.79 million long-time unemployed citizens receiving HartzIV¹¹ (Borstel,

¹¹Social welfare benefits accessible to long-time unemployed in Germany. Including €391/person/month plus financial assistance in

2015; Schäfer, 2013). Since the establishment of the HartzIV scheme in 2005, over one million persons have remained in constant welfare dependency (Schäfer, 2014). The chances to overcome long-time dependency of welfare benefits are extremely low, and beneficiaries tend to stay in the system for life (Öchsner, 2012). Several barriers that impede the integration into the labor market have been identified for unemployed people over 25 years old. The main characteristics include a lack of school formation, bad language skills, long-term unemployment, immigration, women with young children, and people who have a family member that requires assistance for more than ten hours a week (Klinger & Rothe, 2010; Schäfer, 2013). A person receiving HartzIV costs the government around €20,000¹² per year and can cost up to

housing and health insurance (see: German employment agency (Bundesagentur für Arbeit/HartzIV).

¹²The direct cost for the government amounts to around €1,000/person/month (€12,000/person/year): €391 in cash + housing + health insurance. The indirect costs are the social contributions (around €5,000/person/year) and taxes (around €3,000/person/year) that the beneficiaries would pay if they were working for the minimum wage. Altogether, the government pays around €20,000/person/year.

€1.1m¹³ in a lifetime.

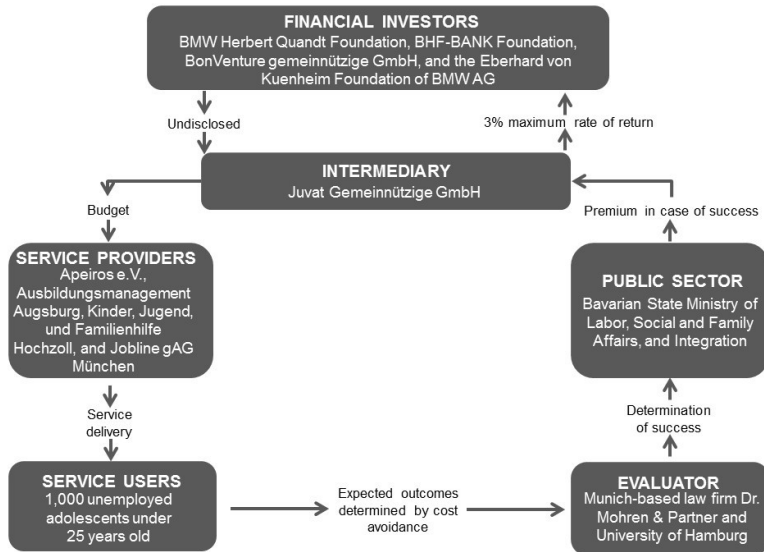
In order to develop a tailored preventive program for underprivileged and unemployed adolescents that are not reached by established governmental programs, the Augsburg pilot project was configured as the first and only SIB in Germany. It was launched in September 2013 by the Bavarian State Ministry of Labor, Social and Family Affairs, and Integration (Bayerisches Staatsministerium für Arbeit und Soziales, Familie und Integration, StMAS) and the Juvat Gemeinnützige GmbH, a non-profit subsidiary of the Benckiser Foundation Future. Juvat is also a contractual partner to commissioners, investors and social service providers in this intervention (see figure 3).

The targeted service users are 1,000 unemployed adolescents under 25 years old in the Augsburg region with no current school attendance and no

¹³According to the World Bank, the life expectancy in Germany is 80 years. For a person in the HartzIV system over the age of 25 years, this means receiving welfare benefits for 55 years, which corresponds to €1.1m (€20,000 * 55 years = €1.1m).

completed compulsory education, no ongoing or successfully completed apprenticeship, no current occupation, no contact to the employment agency, and no participation in agency programs over the last two years before the intervention (Juvat, 2013).

The project runs for 27 months, from September 2013 to December 2015. In a collaborative effort between the SIB partners and the governmental commissioners, the characteristics of the service users, the objective and expected outcomes of the intervention, as well as the maximum rates of returns, were defined. In order to trigger payments, at least 20 service users have to be placed in apprenticeships or gainful employment, and remain in these positions for more than nine months. Furthermore, the jobs must be located either in the district of Augsburg or the district of Aichach-Friedberg and must be subject to social insurance and tax contributions.

Figure 6: Structure of the SIB in Augsburg

(Source: author)

The intervention is delivered by four different social service providers: Apeiros e.V., Ausbildungsmanagement Augsburg, Kinder, Jugend, und Familienhilfe Hochzoll, and Jobline gAG München. All of these providers designed tailored programs that cover the areas of youth welfare, vocational support and career guidance services. The service participants receive intensive

support and guidance and are provided with a safe environment where they learn how to deal with possible obstacles in the job market. Afterwards, they are placed into an apprenticeship program or employment situation with follow-up support services (Juvat, 2013). Helping adolescents to reintegrate into society, solve their issues, and find jobs can drastically reduce the need of welfare assistance and other reactive programs in the future.

Four socially motivated investors, BMW Herbert Quandt Foundation, BHF-BANK Foundation, BonVenture gemeinnützige GmbH, and the Eberhard von Kuenheim Foundation of BMW AG, provided the up-front capital for the SIB. They also assumed the entire default risk. The ex-ante and ex-post evaluation of the predefined objectives will be determined by the Munich-based law firm Dr. Mohren & Partner. In addition, the University of Hamburg will evaluate the process. In case of achieving the expected outcomes, the investors can be compensated with a maximum return of 3% for

the entire timeline of the project. At the time of this research, the exact amount of investments is still unknown.

IV. Discussion

The multi-stakeholder partnership embodied by SIBs introduces complexities that traditional models of social service delivery do not entail. This case study approach will help us understand how different systems deal with the risks and opportunities of the SIB model.

In the U.K., the policies to promote SIBs and the social investment market aim to attract both socially and financially motivated investors. On the one hand, they introduced tax relief schemes for social investments, but on the other hand they also capped the maximum rates of return which reduces the risk of converting SIBs into a mere financial instrument. However, the access to new sources of capital for the social service sector combined with constant cuts in public welfare

spending could become a temptation to over-privatize governmental statutory duties. Nevertheless, innovative tools such as the Unit Cost Database can incentivize social service providers and the government to design successful prevention programs based on data.

Since the adoption of SIBs in the U.S., the participation of rather financially motivated investors has created a tendency towards non-capped rates of return, implying higher profits from the accomplishment of expected outcomes. This could undermine the social motivation of SIBs. In this context, the path-dependency of a high involvement of the private sector in the delivery of welfare services in the U.S. determines the public opinion and the socially acceptable levels of return for solving social challenges.

Germany is characterized by its strong government and welfare system, which embraces the idea of solving social challenges, but limits the public approval of high financial returns to private investors

for this purpose. In the case of the first and only SIB, the German government clearly defined the course of action and the financial framework. The involvement of only socially motivated investors allowed the stakeholders to settle a low rate of return. In this sense, the investors may regard an SIB as an alternative or better option in comparison with a donation and are likely to reinvest the financial return of a successful SIB into further social projects.

All three cases focus on preventive data-driven interventions, which are analyzed by ex-ante feasibility studies during the contract period, and then followed-up by ex-post studies to determine if the expected outcomes have been achieved. These studies provide a clear understanding of the intervention model, the capacity of the social service providers and the cash flow of the project. A bottom-up approach to the development of SIBs is crucial to determine the expected outcomes and safeguard the intervention against negative incentives. Furthermore, it is necessary to have

clear lines of authority, good communication among the stakeholders and managerial support to develop a SIB.

The targeting of specific outcomes, instead of inputs/outputs, gives more flexibility to social service providers to deliver real social change and be accountable for it. Organizations using a holistic approach have the opportunity to learn during the implementation process and adapt the intervention accordingly. However, it could be difficult and costly to develop adequate methods to quantify success and determine proper restrictions. Furthermore, as McHugh et al. point out, the incentives for social service providers to deliver measurable outcomes could create a “mission drift”, in which some organizations focus their efforts on interventions with outcomes that are easier to measure, leaving behind underprivileged populations with social challenges that are difficult to measure and achieve (2013). Nevertheless, the expansion of the social investment market has incentivized the development of software by companies such as

Sinzer, SAM, or the B-lab, which significantly reduces the opportunity cost to calculate the price per outcome for governments, social service providers, and investors.

Thanks to SIBs, social service providers can expect a reliable cash-flow for the entire duration of a project which allows them to secure the service delivery for the users and focus their energies on the project, even if the expected outcomes are not achieved. However, there are exceptions. In the U.S. and U.K., it is possible to terminate an intervention if data suggest that the outcome will be delayed or negative in order to give the investors and intermediaries the opportunity to change the service provider or to completely terminate the SIB before losing more money. In this case, the social service providers take the reputation risk of the intervention. If they fail to deliver the expected outcomes, it will be difficult for the organization to raise funds in the future. It is therefore imperative for providers to carefully assess their capabilities and establish achievable

outcomes beforehand.

The initial SIB model contemplated multi-year contracts beyond the electoral period. However, in the U.K. and Germany the contracts are limited to a shorter period. In contrast, the U.S. developed regulations to secure governmental appropriation of long-term SIBs. If the government is unable to repay investors when the agreed-upon outcomes have been achieved, its reputation and credit rating can be damaged.

In 2010, JP Morgan estimated that the impact investment market has the potential to absorb between \$400bn and \$1tr by 2020 (O'Donohoe et al., 2010). The nature of SIBs grants a certain degree of independence from economic cycles because the underlying driver of financial return is based on social, rather than economic outcomes, which makes them a suitable portfolio investment. Furthermore, SIBs might receive a special tax treatment due to their social character, like in the U.K. This could transform the resolution of social

problems into a profitable business.

V. Conclusions

SIBs have been adapted to the different governmental systems. On the one hand, the U.K. and the U.S. present a more market-oriented perspective on impact investing. On the other hand, in Germany, the model is seen as a complement to the well-established welfare system, where only low interest rates for investors are socially accepted. Accordingly, the path-dependency of governmental institutions determines the degree of an SIB's profit orientation.

In general terms, SIBs can align government, investors and social service providers to create positive social impact. They offer the opportunity to deliver social services that are tailored to the requirements of specific populations and have long-term effects. They should be promoted as an additional source of funding for social programs rather than a competition to state welfare

programs. Only a healthy interaction between the government, the private sector and the social sector can really solve social challenges.

The U.K. is the pioneer in the field. As such, it has developed policies to attract capital of both financially and socially motivated investors in order to establish a social investment market. The Social Investment Tax Relief (SITR) regulation and the Unit Cost Database are steps in the right direction, which help the government and social service providers to obtain funding and to understand the cost of reactive versus preventative programs. Other governments around the world should develop similar approaches to complement their own social service provisions.

Governments should calculate the cost per outcome (negative and positive) of the different social services they provide. Their policies should incentivize the development of programs, which deliver preventative interventions with better outcomes in terms of expenses and social impact.

Furthermore, the repayment should be capped to a lower cost than the currently implemented reactive programs. Moreover, journalists and researchers should be granted access to the data of SIBs in order to increase their legitimacy.

The real innovation driven by SIBs is the use of data in the creation of public policies. The government has the opportunity to realize a one-time-investment in order to teach commissioners to understand and calculate outcomes. Furthermore, the opportunity cost to calculate the social return of investments and the impact of specific interventions has declined with the emergence of specialized software. Eventually, commissioners could apply their knowledge to other policy areas beyond SIBs, creating a spillover-effect for data-driven policymaking.

References

- AEM. (2015, January). Ambition East Midlands. Retrieved January 2, 2015, from <http://www.ambitionem.org/index.html>
- Allen, P. (2009). Restructuring the Nhs Again: Supply Side Reform in Recent English Health Care Policy. *Financial Accountability & Management*, 25(4), 373–389. <http://doi.org/10.1111/j.1468-0408.2009.00483.x>
- Alter, S. K. (2000). *Managing The Double Bottom Line: A Business Planning Reference Guide For Social Enterprises* (Rev Upd edition). Washington, DC: P a C T Pub.
- Benjamin, L., Rubin, J. S., & Zielenbach, S. (2004). Community Development Financial Institutions: Current Issues and Future Prospects. *Journal of Urban Affairs*, 26(2), 177– 195. <http://doi.org/10.1111/j.0735-2166.2004.00196.x>
- Big Issue Invest. (2015, January). Ambition East Midlands. Retrieved May 17, 2015, from <http://bigissueinvest.com/investor/ambition-east-midlands/>
- Big Society Capital. (2012). Big Society Capital: Vision, mission and activities. Retrieved June 29, 2015, from <http://www.bigsocietycapital.com/about-big-society-capital>
- Big Society Capital. (2015). Ambition East Midlands. Retrieved August 1, 2015, from <http://www.bigsocietycapital.com/ambition-east-midlands>
- Borstel, S. von. (2015a, June 7). Für 2,8 Millionen Bürger ist Hartz IV Dauerzustand. *Welt Online*. Retrieved from <http://www.welt.de/wirtschaft/article142059991/Fuer-2-8-Millionen-Buerger-ist-Hartz-IV-Dauerzustand.html>
- Borstel, S. von. (2015b, June 8). Wo Hartz IV in Deutschland zum Dauerzustand wird. *Welt Online*. Retrieved from <http://www.welt.de/wirtschaft/article142059991/Fuer>

-2-8-Millionen-Buerger-ist-Hartz-IV-Dauerzustand.html

- Bugg-Levine, A., & Emerson, J. (2011). Impact investing: Transforming how we make money while making a difference. *Innovations*, 6(3), 9–18.
- Cabinet Office UK. (2007). Council on Social Action. Retrieved January 15, 2015, from http://webarchive.nationalarchives.gov.uk/+http://www.cabinetoffice.gov.uk/social_action.aspx
- Cabinet Office UK. (2013, April 23). Special purpose vehicles. Retrieved August 1, 2015, from http://data.gov.uk/sib_knowledge_box/special-purpose-vehicles
- Cabinet Office UK. (2014a). Fair Chance Fund (No. 01) (p. 23). London: Cabinet Office UK. From: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/317392/FULL_SPEC_020614_web_version.pdf
- Cabinet Office UK. (2014b, June 19). Growing the social investment market: a vision and strategy. Retrieved June 25, 2015, from <https://www.gov.uk/government/publications/growing-the-social-investment-market-a-vision-and-strategy>
- Cabinet Office UK. (2014c, September). Social Impact Investment Taskforce. Retrieved September 15, 2014, from <https://www.gov.uk/government/groups/social-impact-investment-taskforce>
- Cabinet Office UK. (2015, March 27). Social investment tax relief. Retrieved July 8, 2015, from <https://www.gov.uk/government/publications/social-investment-tax-relief-factsheet/social-investment-tax-relief>
- Clark, C., Emerson, J., & Thornley, B. (2014b). *The Impact Investor: Lessons in Leadership and Strategy for Collaborative Capitalism* (1. Auflage). Hoboken, NJ: John Wiley & Sons.
- Defourny, J., & Nyssens, M. (2010a). Conceptions of Social Enterprise and Social Entrepreneurship in Europe

- and the United States: Convergences and Divergences. *Journal of Social Entrepreneurship*, 1(1), 32–53.
<http://doi.org/10.1080/19420670903442053>
- Defourny, J., & Nyssens, M. (2010b). Social enterprise in Europe: At the crossroads of market, public policies and third sector. *Policy and Society*, 29(3), 231–242.
<http://doi.org/10.1016/j.polsoc.2010.07.002>
- Derlien, H.-U. (1998). *From administrative reform to administrative modernization*. Bamberg: Univ.
- Durant, R. F., Girth, A. M., & Johnston, J. M. (2009). American Exceptionalism, Human Resource Management, and the Contract State. *Review of Public Personnel Administration*, 29(3), 207–229.
<http://doi.org/10.1177/0734371X09335617>
- Eccles, T. (2014a, February 18). Valuable Numbers. Retrieved January 25, 2015, from <http://blogs.cabinetoffice.gov.uk/socialimpactbonds/>
- Eccles, T. (2014b, April 25). Peterborough SIB – a success or a failure? Retrieved from <https://tobyecc.wordpress.com/2014/04/25/peterborough-sib-a-success-or-a-failure/>
- Edwards, J. (2011). Retrieving the Big Society. *The Political Quarterly*, 82, 1–8. <http://doi.org/10.1111/j.1467-923X.2011.02322.x>
- Edwards, J. (2012). *Retrieving the Big Society*. London: John Wiley & Sons Inc.
- Emerson, J. (2003). The Blended Value Proposition: Integrating Social and Financial Returns. *California Management Review*, 45(4), 35–51.
<http://doi.org/10.2307/41166187>
- Golden, M., Nagendra, B., & Mun, K. S.-H. (2015). *Pay for Success in the U.S.* (p. 3). Columbia: Institute for Child Success.
- Grant, P. (2012). *The business of giving: the theory and practice of philanthropy, grantmaking, and social investment*. New York: Palgrave Macmillan.

- Retrieved from
<http://www.netread.com/jcusers2/bk1388/797/9780230336797/image/lgcover.9780230336797.jpg>
- Harji, K., & Jackson, E. T. (2012). *Accelerating Impact: Achievements, Challenges and What's Next in Building the Impact Investing Industry*. The Rockefeller Foundation.
- Harris, J. (2011). Servile State or Discredited State? Some Historical Antecedents of Current "Big Society" Debates. *The Political Quarterly*, 82, 55–67. <http://doi.org/10.1111/j.1467-923X.2011.02327.x>
- Hood, C. (1991). A Public Management for All Seasons? *Public Administration*, 69(1), 3–19. <https://doi.org/10.1111/j.1467-9299.1991.tb00779.x>
- Juvat. (2013). *The first German Social Impact Bond (SIB): The Augsburg pilot project* (No. 1) (p. 10). Augsburg: Juvat gemeinnützige GmbH. Retrieved from <http://www.juvat.org/index.php>
- Kenny, S. (2013). Challenging third sector concepts. *Third Sector Review*, Volume 19(Issue 1), 171–188.
- Kingston, J., & Bolton, M. (2004). New approaches to funding not-for-profit organisations. *International Journal of Nonprofit and Voluntary Sector Marketing*, 9(2), 112–121. <http://doi.org/10.1002/nvsm.238>
- Klinger, S., & Rothe, T. (2010). Entwicklung der Langzeitarbeitslosigkeit in Aufschwung und Krise. *Wirtschaftsdienst*, 90(9), 632–634. <http://doi.org/10.1007/s10273-010-1128-z>
- Kneiding, C., & Tracey, P. (2008). Towards a Performance Measurement Framework for Community Development Finance Institutions in the UK. *Journal of Business Ethics*, 86(3), 327–345. <http://doi.org/10.1007/s10551-008-9850-9>
- Learmonth, I., & Sainty, E. (2015, February). Utah High Quality Preschool SIB. Retrieved August 4, 2015, from <http://socialventures.com.au/case-studies/utah-high-quality-preschool-sib/>
- Manetti, G. (2014). The Role of Blended Value Accounting in the Evaluation of Socio-Economic Impact of Social Enterprises. *VOLUNTAS: International Journal of*

- Voluntary and Nonprofit Organizations*, 25(2).
<http://doi.org/10.1007/s11266-012-9346-1>
- Manville, G., & Broad, M. (2013). Changing Times for Charities: Performance management in a Third Sector Housing Association. *Public Management Review*, 15(7), 992–1010.
<http://doi.org/10.1080/14719037.2012.761722>
- McHugh, N., Sinclair, S., Roy, M., Huckfield, L., & Donaldson, C. (2013). Social impact bonds: a wolf in sheep's clothing? *Journal of Poverty and Social Justice*, 21(3), 247–257.
<http://doi.org/10.1332/204674313X1381237213792>
1
- McKinsey & Company. (2012, May). From Potential to Action: Bringing Social Impact Bonds to the U.S. Retrieved June 21, 2014, from <http://mckinseysociety.com/social-impact-bonds/>
- Millar, R. (2012). Social enterprise in health organisation and management: hybridity or homogeneity? *Journal of Health Organization and Management*, 26(2), 143–148. <http://doi.org/10.1108/14777261211230817>
- National Advisory Board (NAB) Germany. (2014). Social Impact Investing: Financing Social Change (Text No. 01) (p. 80). Berlin: National Advisory Board (NAB) Germany – Member of the International Social Impact Investment Taskforce (SIITF), established during the UK Presidency of the G8.
Retrieved from http://www.socialimpactinvestment.org/reports/150127_NAB_Report.pdf
- National Advisory Board (NAB) UK. (2014). *Building a social impact investment market: The UK experience* (Text No. 01) (p. 44). London: National Advisory Board (NAB) UK - Member of the International Social Impact Investment Taskforce (SIITF), established during the UK Presidency of the G8. Retrieved from <http://www.socialimpactinvestment.org/reports/UK%20Advisory%20Board%20to%20the%20Social%20Investment%20Taskforce%20Report%20September%202014.pdf>

- National Advisory Board (NAB) USA. (2014). *Private Capital Public Good: How Smart Federal Policy Can Galvanize Impact Investing — and Why It's Urgent* (Text No. 01) (p. 64). Washington, D.C.: National Advisory Board (NAB) USA - Member of the International Social Impact Investment Taskforce (SIITF), established during the UK Presidency of the G8. Retrieved from <http://www.socialimpactinvestment.org/reports/US%20REPORT%20FINAL%20250614.pdf>
- New Economy. (2015, March). Unit Cost Database. Retrieved from <http://neweconomymanchester.com/stories/832-unit-cost-database>
- Nicholls, A., & Tomkinson, E. (2013). *The Peterborough Pilot Social Impact Bond* (Social Impact Bonds No. 9) (p. 50). Oxford: Saïd Business School. Retrieved from <https://emmatomkinson.files.wordpress.com/2013/06/case-study-the-peterborough-pilot-social-impact-bond-oct-2013.pdf>
- Öchsner, T. (2012, Dezember , Uhr). Arbeitslosigkeit: Hartz IV - lebenslang. *sueddeutsche.de*. Retrieved from <http://www.sueddeutsche.de/wirtschaft/arbeitslosigk-eit-hartz-iv-lebenslang-1.1561002>
- O'Donohoe, N., Leijonhufvud, C., & Yasemin, S. (2010, November 29). Impact Investing: An emerging Asset Class. JPMorgan Chase & Co. Retrieved from http://www.thegiin.org/cgi-bin/iowa/download?row=151&field=gated_download_1
- Osborne, D., & Gaebler, T. (1993). *Reinventing Government: The Five Strategies for Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector* (Reprint). New York, N.Y: Plume.
- P3. (2015, January). *Ambition East Midlands*. Retrieved from <http://www.p3charity.org/ambition-east-midlands>
- Palandjian, T., & Schaeffer, S. (2014, June 4). Social Impact Bonds: From Concept to Reality [WEBINARS Live discussions of important social

- innovation topics]. Retrieved from <http://www.ssireview.org/webinars>
- Pestoff, V. A. (1992). Third sector and co-operative services — An alternative to privatization. *Journal of Consumer Policy*, 15(1), 21–45. <http://doi.org/10.1007/BF01016352>
- Phillips, S., & Hebb, T. (2010). Financing the third sector: Introduction. *Policy and Society*, 29(3), 181–187. <http://doi.org/10.1016/j.polsoc.2010.07.001>
- Pollitt, C., & Bouckaert, G. (2011). *Public management reform: a comparative analysis; new public management, governance, and the Neo-Weberian state* (3rd ed.). Oxford [u.a.]: Oxford Univ. Press.
- Salamon, L. M., Anheier, H. K., List, R., Toepler, S., & Sokolowski, S. W. (Eds.). (1999). *Global Civil Society, Volume One: Dimensions of the Nonprofit Sector*. Baltimore, MD: Kumarian Press.
- Salamon, L. M., & Sokolowski, S. W. (2004). *Global Civil Society: Dimensions of the Nonprofit Sector*. Johns Hopkins Center for Civil Society Studies.
- Schäfer, C. (2013, May 7). Hunderttausende schwere Fälle von Langzeitarbeitslosigkeit. *Frankfurter Allgemeine Zeitung*. Frankfurt am Main. Retrieved from <http://www.faz.net/aktuell/wirtschaft/vollbeschaeftigung/schwerpunkt-arbeit-fuer-alle-hunderttausende-schwere-faelle-von-langzeitarbeitslosigkeit-12174574.html>
- Schäfer, C. (2014, August 20). Hartz IV Von guten Mächten lebenslang gestützt. *Frankfurter Allgemeine Zeitung*. Frankfurt am Main. Retrieved from: http://www.faz.net/aktuell/wirtschaft/menschen-wirtschaft/hartz-iv-von-guten-maechten-lebenslang-gestuetzt-13108005.html?printPagedArticle=true#pageIndex_2

- Shufelt, T. (2012). Do Good, and Make Money. *Canadian Business*, 85 (21/22), 8–9.
- SIITF. (2014). *Impact Investment: The Invisible Heart of Markets; Harnessing the power of entrepreneurship, innovation and capital for public good*. Retrieved June 29, 2015, from <http://www.socialimpactinvestment.org/index.php>
- SITF. (2000). *Enterprising Communities: Wealth Beyond Welfare* (Text No. 1) (p. 32). London: The Social Investment Task Force. Retrieved from <http://www.socialinvestmenttaskforce.org/>
- SITF. (2010). *Social Investment Ten Years On* (Text No. 4) (p. 24). London: The Social Investment Task Force. Retrieved from <http://www.socialinvestmenttaskforce.org/>
- Smith, S. R. (2010). Hybridization and nonprofit organizations: The governance challenge. *Policy and Society*, 29(3), 219–229. <http://doi.org/10.1016/j.polsoc.2010.06.003>
- Social Finance. (2015). *State and Local Activity in the US: A Snapshot*. Retrieved from <http://www.socialfinanceus.org/social-impact-financing/social-impact-bonds/history-sib-market/united-states>
- Stiglitz, J. E. (2012). *Der Preis der Ungleichheit: wie die Spaltung der Gesellschaft unsere Zukunft bedroht*. (T. Schmidt, Ed.) (4th ed.). München: Siedler.
- United Way of Salt Lake. (2015). *2014-2015 / Annual Report to the Community* (Text) (p. 8). Salt Lake City: United Way of Salt Lake. Retrieved from <http://www.uw.org/our-work/reports-pdfs/uwsl-annual-report-2015-vff-cut.pdf>
- Voices for Utah Children. (2011). *High Quality Preschool Closes the Achievement Gap and Reduces Special Education Costs for At-Risk Children* (p. 4). Salt Lake City: Voices for Utah Children. Retrieved from [http://www.uw.org/our-work/high-quality-preschool-](http://www.uw.org/our-work/high-quality-preschool-improves-academic-achievement-and-)

[reduces-special-education-costs-evidence-from-gsd-with-sfm-updated-10-26-11.pdf](#)

World Economic Forum. (2013). *From Ideas to Practice, Pilots to Strategy: Practical Solutions and Actionable Insights on How to Do Impact Investing* (A report by the World Economic Forum Investors Industries) (p. 60). New York: World Economic Forum. Retrieved from World Economic Forum.

A Proposed Framework to Analyze the Impact Investing Ecosystem in a Cross-Country Perspective¹

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Abstract:

This study developed an impact investing ecosystem framework to present a comprehensive overview of the impact investing sector, identifying key challenges and possibilities. Two Asian countries, Japan and Singapore, were used as case studies. The proposed framework reveals that the market scales in Japan and Singapore are small and each country faces unique challenges for developing impact investing. For Japan, the low level of

¹ An early version of this paper was presented at the 24th International Scientific Conference on Economic and Social Development - "Managerial Issues in Modern Business" in Warsaw on 13-14 October 2017 under the name of "The Impact Investing Ecosystem in Japan and Singapore"

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philanthropic activities and the small social sector are the key challenges to overcome for impact investing growth. For Singapore, the government's low social expending strategy may limit the development. However, both countries have supportive environments for impact investing due to high-quality human resources, well-developed financial markets and political interest. In particular, the high total wealth of high network individuals (HNWI) in Japan and large donations to charities in Singapore (% GDP) offer rich potential.

Key words: *Entrepreneurial Ecosystem, Impact Investing, Public Policy, Social Impact Investment Framework, Social Impact Bonds.*

I. Introduction

New approaches to address increasing social challenges are necessary, especially as national economies develop and additional strain is placed on social and environmental demands. Pollution, natural resource exhaustion, income inequality, and increasing healthcare costs are new problems requiring attention across the globe. While the challenges are growing, the traditional solutions from the public sector that have been relied upon are insufficient — many governments are debt-ridden, and charities and non-profit organizations (NPOs) continue to struggle to raise funds. In this context, impact investing has emerged as an innovative cross-sector arrangement to support the work of the social sector while still generating financial revenue. In this process, impact investors provide capital to organizations with social purposes (SPOs), aiming at creating both financial and social returns (Bugg-Levine & Emerson, 2011; Nicholls, 2010).

During the past decade, efforts have been made to build a formal impact investing industry at a global level. Market infrastructures, networks, platforms, and methods to measure social impacts have been established (Jackson, 2013). In addition, academic research has provided empirical evidence that impact investing has been successfully implemented in a wide range of forms (Ormiston et al., 2015). Governmental institutions, such as the European Commission and G8 countries (now G7) led by the United Kingdom, have shown their support (European Commission, 2011; SIITF, 2014). The emergence of impact bonds has also actively included public capital in the practice of impact investing. Across the globe, there are currently 89 impact bonds being implemented and capital amounting to USD 322 million has been raised for the projects (Social Finance UK, 2017).

Despite the attention and support, more commitment is needed to stimulate the development of impact investing globally. Geographically, the major actors in the impact investing market are based in Europe

and North America (Jackson, 2013). In Asia, where impact investing is a relatively new concept, only a few players are involved (Asian Development Bank, 2011). There is very limited academic literature focusing on this topic. As the structure and function of the social sector varies across different countries, further contextual examination is necessary, particularly with regard to Asia. Therefore, the primary attempt of this research is to propose a framework to assess and compare the impact investing ecosystems in a cross-country perspective, taking into account the role of public policy in the development of the market, and then offering policy recommendations. For this purpose, this research applies an entrepreneurial ecosystem approach (based on the Babson Entrepreneurship Ecosystem Project (BEEP)) and adapts it to the context of impact investing based on the Social Impact Investment Framework from the Organization for Economic Co-operation and Development (OECD). With this approach, a comprehensive overview of the development is presented, possibilities and

challenges for impact investing are identified, and the key determinants are evaluated. Japan and Singapore are used as case studies, and the highly developed UK impact investing market is used as a benchmark for policies and strategies concerning market development.

This paper is organized into four sections: the first section explains the concept of impact investing and provides the theoretical framework for the proposed social impact investing framework. The second section presents the six domains of the framework, and the methodology used to select the indicators for evaluating the ecosystem in the selected countries. The third section analyzes and interprets the relevant findings to answer the research questions: *What are the current developments of impact investing in Asia? Who are the main actors in the market? What are the possibilities and challenges? How can public policy enable the development of impact investing?* The fourth section presents the conclusions and policy recommendations for each country individually.

II. Theoretical Framework

A. Impact Investing

The term “impact investing” was coined in 2007 by the Rockefeller Foundation (Harji & Jackson, 2012). It presents a new investment logic that has gained growing attention over the past decade — the impact investors provide capital to social entrepreneurs, actively aiming at creating measurable social changes with the goal of obtaining financial returns as well (Bugg-Levine & Emerson, 2011; Jackson, 2013; Nicholls, 2010). Following this model, various investment activities have emerged across the globe.

Impact investing is a new political-economic arrangement between the government, business, and social sectors. More concretely, it emerged alongside three major trends. Firstly, it is related to an attitude change toward new capitalism (Dacin et al., 2011; Clark et al., 2014). Society now requires a more sustainable and ethical way to develop the economy. For example, consumers in the newer

generations demand “good” products that are environmentally and socially ethical (Herman, 2010; Nicholls & Opal, 2005). This change of attitude has stimulated the practice of impact investing, giving financial incentives for investors to create social values. Secondly, impact investing is seen as the evolution of Corporate Social Responsibility (CSR) and Socially Responsible Investing (SRI) movements (Ormiston et al., 2015). The third trend that contributes to impact investing is the change of the social sector. During the past decades, the social sector has begun to adopt and adapt business techniques in order to address social problems, generating revenue to be more self-sustaining; accordingly, social enterprises have emerged (Borzaga & Defourny, 2001, 2004; Seelos & Mair, 2005; Volkmann et al., 2012). These developments shaped the modern social sector in a way that resembles market economies and created investing opportunities for impact investors.

These trends show that impact investing serves as a cross-sector collaborative approach that can create

joint benefits for all three participating parties. For governments, it helps them solve social problems; for private investors, it responds to the demands of consumers and creates financial benefits; and for the social sector, it provides needed resources and improves their effectiveness.

The impact investing sector is still young and faces several challenges, including a lack of sufficient capital and high-quality investment opportunities (Wilson et al., 2015; Achleitner et al., 2011), and the need of more enabling environments, effective intermediaries, and proper legal frameworks for further growth (Bugg-Levine & Goldstein, 2009; Mendell & Barbosa, 2013; Wilson et al., 2015). To overcome these challenges, more governmental involvement is recommended to shape and boost the market (Mendell & Barbosa, 2013; Moore et al., 2012b; Sunley & Pinch, 2012; Wood et al., 2013). Furthermore, a more tailored academic engagement is needed to support the design of effective interventions. Research has yet to theorize on the investment structure and clearly define the

epistemological boundaries (Moore et al., 2012a). Despite Nicholls' (2010) significant contribution to conceptualize impact investments and examine the investment logic and rationality, impact investing requires further conceptual clarification. At this early stage of development, researchers have diverse understandings of the notion and difficulty providing a precise definition (Höchstädter & Scheck, 2015; Moore et al 2012a; Wilson et al., 2015). Furthermore, there is a wide range of related terms to describe impact investing that are utilized interchangeably or with overlapping concepts (Louche et al., 2012; Wilson et al., 2015; Wood & Hagerman, 2010). The most common ones are social investing and socially responsible investing (SRI) (Höchstädter & Scheck, 2015). Despite the use of different terms, the concepts do not differ from impact investing fundamentally (Louche et al., 2012; Wilson et al., 2015; Wood & Hagerman, 2010). The term "social investing" emerged earlier in 2000 and is commonly used in Europe in line with impact investing. It usually covers a broader meaning and includes all investing

actions with a social or environmental purpose (Höchstädter & Scheck, 2015; Wilson et al., 2015). The term “SRI” is used to describe a more traditional view of ethical or sustainable investing (Höchstädter & Scheck, 2015). For our research purposes, the two terms are included in the discussion of impact investing, in an attempt to cover the full potential of its development.

According to the literature review, the general definition of impact investing centers on three core elements: the creation of both social and financial returns, the intention, and measurable impacts. Namely, investors intentionally provide capital to organizations to generate a “blended value” of both social impacts and financial profits (Höchstädter & Scheck, 2015; Nicholls, 2010). The idea of blended value creation attempts to focus on both of these outcomes without trade-offs (Emerson, 2003), and this idea represents what impact investing aims to achieve (Bugg-Levine & Emerson, 2011). While discussions of impact investing highlight the intention and measurement of social impacts, the level of

financial return rates is usually not limited and the investors can adopt different investment strategies (Höchstädter & Scheck, 2015; Nicholls, 2010). This research is based on this general understanding of impact investing. In this context, impact investing can be practiced in a wide range of forms to address social or environmental issues wherever needed. Firstly, impact investing can appear in the form of debt, equity, loans, microfinance funds, venture philanthropy, or hybrid capital (Achleitner et al., 2011; Bugg-Levine & Emerson, 2011; Ormiston et al., 2015). In other words, impact investors can choose from a broad spectrum of investing strategies for any combination of social and financial risks and returns, according to their investing interest and rationality (Nicholls, 2010; Rangan et al., 2011; SIITF, 2014). As a consequence, the flexibility and diversity of strategy options in the impact investing market attracts various types of investors seeking social and/or environmental impact plus profit.

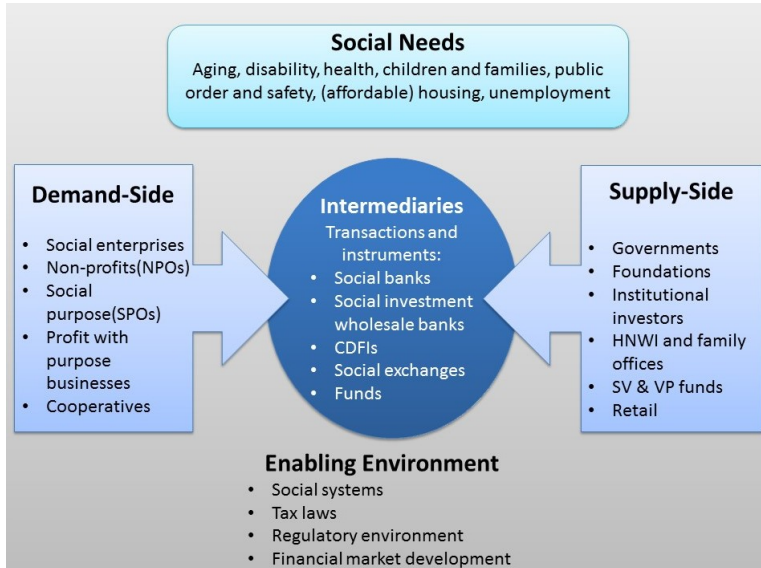
B. The OECD Social Impact Investment Framework

To explore the landscape of impact investing and the role public policy can play in catalyzing its development, a comprehensive understanding of the actors and influencing factors in the impact investing industry is necessary. Because the impact investing market is nascent, the focus of the academic field is usually on measuring the impact of value creation rather than evaluating the entire impact investing market (Jackson, 2013). Hence, there are limited approaches available for the analysis of current developments. The most systemic approach is provided by the OECD.

As shown in Figure 1, the Social Impact Investment Framework by the OECD presents the elements that make up the social impact investment market (Wilson et al., 2015). It provides a clear overview of the impact investing industry as an “ecosystem”, identifying the relevant actors, investing channels and influencing factors in the market. This concept

closely corresponds to this study's goal to explore the scale and size of the impact investing market in a cross-country perspective. Nevertheless, the framework combines different types of key factors under the same category "enabling environment". Given that this research attempts to explore the impact investing industry for policy-makers, it is essential to examine these core enabling environment conditions in a more organized way, avoiding omissions and without too much focus on the investors, investees, and intermediaries. Therefore, this research reorganized the elements of this framework based on an associated entrepreneurial ecosystem approach.

Figure 1. OECD's Social Impact Investment Framework



Source: Authors, adapted from Wilson et al., 2015.

C. The Entrepreneurial Ecosystem Approach

Since the OECD framework to examine the impact investing industry is limited, this research paper explores the ecosystem approach utilized in the field of entrepreneurship creation. The entrepreneurial ecosystem approach provides a comprehensive method to examine, support, or stimulate entrepreneurship. It studies the creation of new

businesses in a region as the outcome of a self-sustaining entrepreneurial ecosystem with a unique environment, consisting of various interacting components (Isenberg & Onyemah, 2016; Neck et al., 2004; Stam, 2015). A healthy entrepreneurial ecosystem is believed to lead to job creation and economic growth (ibid). For public policy, this approach presents a holistic and systemic view, focusing on enabling a self-sustaining ecosystem that leads to entrepreneurship growth instead of intervening in the business of particular entrepreneurs (Ács et al., 2014; Autio et al., 2014; Mason & Brown, 2014; Stam, 2015). Measuring the existing ecosystem could provide a comprehensive overview of the enabling actors, the possible challenges, and opportunities. Hence, mapping the ecosystem could be the first step towards encouraging entrepreneurial actions.

This approach was chosen for the following reasons. First, the impact investing sector resembles traditional entrepreneurship activities as it involves the creation of both social and financial values. By

considering impact investing an emerging new sector of entrepreneurship, this approach is suitable to help understand current developments, identify the actors, potential and challenges in the market, and consequently provide the information required to design suitable policies. In addition, the concept of examining entrepreneurship like an ecosystem has similarities to the Social Impact Investing Framework developed by the OECD. Lastly, previous research has also applied a broader ecosystem approach in the field of modern economics for various sectors with different scopes and objectives (Adner, 2017; Cohen, 2006; Ferdinand & Meyer, 2017; Fraiberg, 2017; Park & Choi, 2014).

This study utilizes the entrepreneurial ecosystem framework from the Babson Entrepreneurship Ecosystem Project (BEEP). As presented in Figure 2, the BEEP identifies the key components of the entrepreneurial ecosystem by categorizing them into six domains: policy, markets, human capital, culture, supports, and finance (Isenberg & Onyemah, 2016). These elements form an interactive and self-

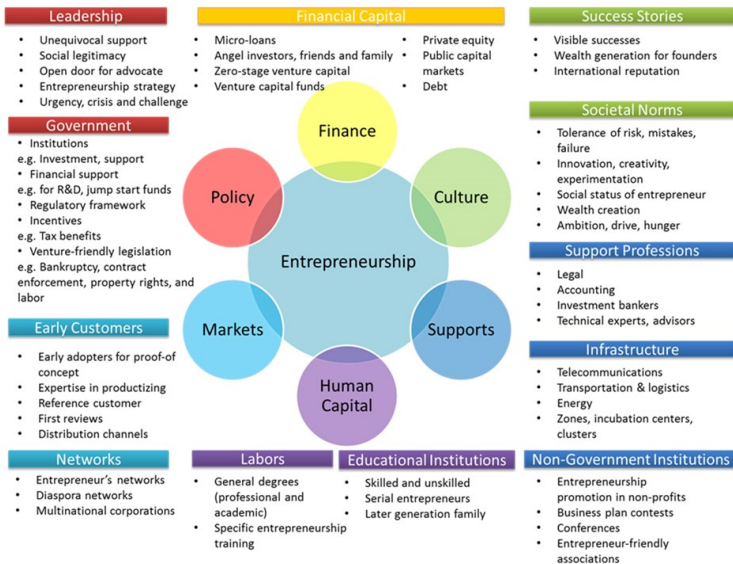
sustaining environment that leads to entrepreneurship growth (ibid). The BEEP framework was chosen because it focuses more on the interacting actors and factors instead of measuring their performances and impacts, which is more suitable for an industry in an early stage of development. Moreover, it is more general and conceptual, as it does not utilize a defined set of indicators. This allows for more flexibility in the selection of proper indicators, which is necessary given the nature of the impact investing industry.

Isenberg (2016), the head of the BEEP project, argues that the entrepreneurship ecosystem should be observed in small geographic units⁴ because some components of the framework are linked to culture (e.g. risk aversion, ambition, creativity, etc.), which differs across regions. However, studies focusing on national systems of entrepreneurship exist as well (see Ács et al., 2014). For this study, the

⁴For example, cities with a population of less than 2 million (see Isenberg & Onyemah, 2016 for cases).

BEEP framework will be adapted to assess the impact investing sector within the selected cases on a national level. Nevertheless, to further understand the environment and design policies for impact investment, examination at sub-national levels is recommended.

Figure 2. BEEP: Components of the Ecosystem



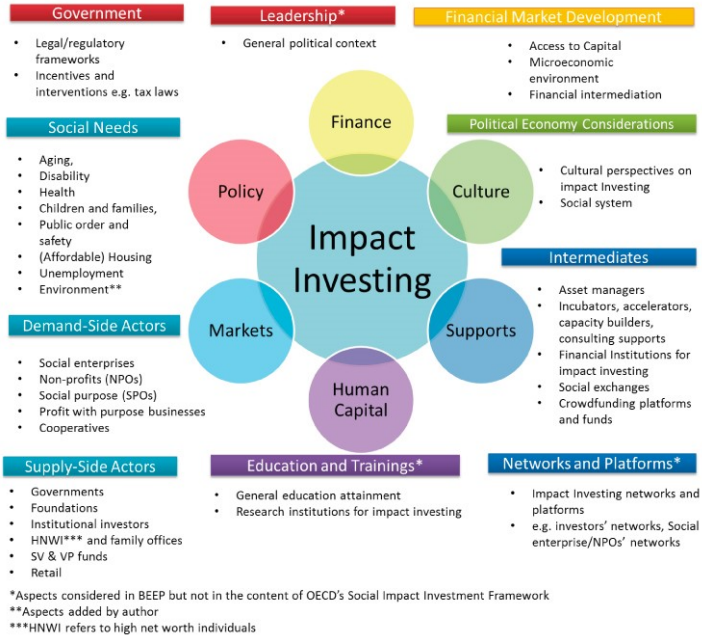
Source: Authors, adapted from Isenberg & Onyemah, 2016.

D. The Impact Investing Ecosystem Framework

Considering that the impact investing sector is different from traditional entrepreneurship, this research combined and adapted the two above mentioned frameworks. Thus, a new framework was established – the Impact Investment Ecosystem Framework, as shown in Figure 3. It is based on the six domains categorized by the BEEP ecosystem framework: policy, markets, human capital, culture, supports, and finance (Isenberg & Onyemah, 2016). The determinants of the OECD’s Social Impact Investment Framework have been reorganized into these six domains. Some of the aspects considered in BEEP, but not in the OECD’s Social Impact Investment Framework, have been added to complement the domains of this new framework. The environment variable in the market domain, has been added by the authors to acknowledge the fact that impact investment can create environmental value as well. The aspect of networks has been allocated to the supports domain rather than the market domain considering their essential role in supporting the

industry and building capacity.

Figure 3: Impact Investing Ecosystem Framework



Source: Authors, adapted from Wilson et al., 2015 and
Isenberg & Onyemah, 2016

III. Methodology

The proposed impact investing ecosystem framework was applied in a case study approach to obtain empirical insight into the development of impact investing in Asia. Japan and Singapore were

selected as cases. While impact investing is still nascent in Asia, the two chosen countries have relatively active impact investing markets compared to other Asian countries. Japan is a member of the G8 (now G7) Social Impact Investment Taskforce to catalyze the development of impact investing across the globe (SIITF, 2017), while Singapore is the home of important impact investing networks in Asia, such as the Asian Venture Philanthropy Network (AVPN) and Impact Investment Exchange Asia (IIX).

The benchmark for this research is the highly developed impact investing market in the UK, which is currently the largest across the globe. Furthermore, with the British government's support, various research studies and practices were conducted over the years. Consequently, the UK provides the most data on the development of impact investing (Wilson et al., 2015) and serves as a suitable reference point to make cross-country comparisons.

To assess the six domains of the proposed impact

investing ecosystem framework, a set of indicators was selected. This research used secondary data from well-established cross-country development indicators and official governmental information to assure data credibility. Additional information from key impact investing networks in Asia, such as the AVPN, were utilized as a proxy to estimate the market size and identify key players.

The policy domain of the framework examines the political context influencing the impact investing ecosystem in two aspects: leadership and government. The leadership determinant concerns the general political context that enables impact investing. It is assessed through the World Governance Indicators (WGI) by the World Bank (2016), such as political stability, government effectiveness and regulatory quality. The government determinant refers to legislation and governmental interventions. It is evaluated through the existence or absence of an appropriate legal framework (legal forms for social enterprises in particular), the key initiatives, laws, and policies that

the government has developed in relation to impact investing. This data was collected through governmental publications and the reports published under the Social Impact Investment Taskforce.

The determinants assessed in the markets domain are demand (social needs), market demand-side actors, and supply-side actors. A set of indicators was selected to measure social needs, including the Social Progress Index (the variables of which are health and wellness, personal safety, shelter, water and sanitation, environmental quality, and maternal and child mortality rates) (Social Progress Imperative, 2017), the World Bank indicators (population ages 65 and above, unemployment rate) (2017a; 2017b), OECD's (2017b) GINI Coefficient for income inequality, and the UNDP's (2016) Human Development Index (Gender Inequality Index). The demand-side actors of the market were measured through the number and size of the actors, according to the country-specific forms of related organizations and governmental data. The supply-side actors of the market were assessed through the amount of

investments made by these actors to address social needs. The indicators include the government's social expenditure (OECD, 2017a; Singapore Government, 2017), the budget of charities and NPOs (Cabinet Office, Japan 2016; COC, Singapore Government, 2015; Government of UK, 2017a), total donations to charities (JFRA, 2015; COC, Singapore Government, 2015; NCVO, 2017), total sustainable investment assets (Eurosif, 2016; GSIA, 2016), the size of the impact investment market (Big Society Capital, 2015; Japan NAB, 2016) and the total wealth of high network individuals (HNWIs) (Capgemini, 2016). Additionally, examples of impact investors were collected.

The human capital domain, particularly education and training, were assessed through the education index shown in the human development index (HDI) by the UNDP (2016), the years of tertiary schooling according to the Social Progress Index (Social Progress Imperative, 2017) and the Program for International Student Assessment (PISA) by the OECD (2015). Furthermore, several research

institutions with a focus on impact investing were examined based on desk research, utilizing information collected by the AVPN (Mohan et al., 2017) and the institutions' official websites. Nevertheless, it was difficult to ascertain whether an institution does research on impact investing.

The culture domain analyzes political economy considerations, including cultural perspectives and the social system. The cultural perspectives on impact investing were assessed using the World Giving Index (CAF, 2016) as a proxy for citizen attitudes and willingness to engage in solving social problems. The social systems, in this research defined as the political and economic structure of the society, were examined based on Acemoglu and Robinson's (2013) research on the influences of "inclusive" or "extractive" political economic structures.

The supports domain uses a set of relevant organizations to analyze the intermediaries, networks and platforms of impact investing in each

country and provides a list of examples.

The finance domain examines the general financial development. The development was assessed through the World Bank Development Indicators (central government finance: debts) (2017c), the World Economic Forum's Inclusive Development Index (financial intermediation of real economy investment) (2017), and the World Competitiveness Index (macroeconomic environment, financial market development, and market size) (2016). All indicators are listed in the table annexed to this paper.

The limitation of this methodology is related to the difficult access to measurable and comparable data for Japan, Singapore and the UK. Since the impact investing industry is at an early stage of development in Asia, there is often insufficient information available.

IV. Results and Discussion

A. The Policy Domain

Leadership: General political context. Understanding the governments' role in the impact investing ecosystem is essential for creating a positive environment. Generally speaking, the political environments for impact investing in Japan, Singapore, and the UK are enabling. All countries gain positive governance scores in all six WGI indicators by the World Bank (2016), except for Singapore. But although Singapore has a -0.1 score (-2.5 to +2.5) in voice and accountability, it has nearly perfect scores in the other five indicators, which still implies an enabling political environment for governance and implementing interventions (ibid). As for Japan, its regulatory quality (+1.2) and rule of law (+1.5) are slightly lower than those of Singapore (+2.3 and +1.9) and the UK (+1.9 and +1.8) (ibid). Therefore, it might face more regulatory barriers when developing impact investing. For the UK, the score in political stability and absence of violence is

significantly lower (+0.6) than the scores for Japan (+1.0) and Singapore (+1.2) (ibid); this could increase uncertainty in the development of impact investing if the political interest changes.

Government: Regulatory frameworks for social enterprises. The existence of enabling regulatory frameworks for social enterprises can directly increase investment opportunities for impact investors. Currently, the legal status of social enterprises is still complex and without a precise definition in the three countries. There has been more progress in the UK. While social enterprises can appear in many forms, a specific form, the community interest company (CIC), was established in 2004 for businesses that benefit the community (Government of UK, 2017b; UK NAB, 2014). In Singapore, social enterprises come in various entities including for-profit and non-profit (The Law Society of Singapore, 2016). However, the government-funded Singapore Centre for Social Enterprise (raiSE) has provided a status for social enterprises with memberships (raiSE, 2017). For

Japan, there is no specific legal entity for social enterprises either (Japan NAB, 2014). The closest effort is the report conducted by the cabinet office to define social enterprises and estimate the market scale (Cabinet Office, Government of Japan, 2015). To help create more impact investments, the three countries, especially Japan, should further consider a specific legal framework for social enterprises.

Government: Interventions and incentives for impact investing. The policy interest in impact investing is evident for all three countries. The UK government is the most active, with a wide range of initiatives, regulations, and policies to support the development of impact investing, including encouraging investors, improving financial environments for social organizations, engaging public actors, building market capacity and infrastructure and creating social impact bonds (see annex). In Japan, two key policies were developed under the initiative of the Social Impact Investment Taskforce, based on the experiences in the UK. Firstly, the government passed a law to enable the use of capital from

dormant bank accounts for impact investing purposes. The implementation of this policy is expected by 2019 and is applicable to dormant capital since the end of 2016. The approach is similar to the UK's Big Society Capital (The Japan Times, 2016). Secondly, three pilot projects of social impact bonds were launched in 2015, focusing on family care, aging support, and youth employment (Japan NAB, 2016; The Nippon Foundation, 2015). These developments in Japan are considered an encouraging progress for impact investing. In Singapore, there are policies which imply an indirect, not yet specific political interest in the impact investing market, such as providing attractive tax incentives for donations, supporting social enterprises and the social sector (see annex). In summary, for further development of the impact investing market, the two Asian countries should pursue a comprehensive plan with various types of policies like in the UK.

B. The Markets Domain

Demand: Social needs. If social problems are present, there is the opportunity for impact investing to develop a new approach to solve them. Compared with Japan and Singapore, the UK seems to have a greater need to handle social problems in most of the selected areas of this research. However, there is a demand for impact investing in all three countries, although with different focuses and levels of priority.

Regarding the aging of the population, there is a high demand for social projects in all three countries. The Japanese society faces the most serious problem of aging: 26% of the population in Japan were above 65 years old in 2015 (World Bank, 2017a). While this figure is lower for the UK and Singapore (18% and 12% respectively), it is still higher than the world average (8.3%) and therefore raises concerns (ibid). For disability and health issues, assessed through the Social Progress Index's Health and Wellness indicators, the three countries gain similar scores, although Japan presents the lowest (79.89 out of

100). The performance of the three countries is acceptable, but there is still a demand for healthcare programs (Social Progress Imperative, 2017).

There is a greater demand to improve the welfare for children and families in Singapore and the UK. Singapore presents a higher maternal mortality rate (9.98 deaths per 100,000 live births), while the figures for the UK (9.11) and Japan (5.43) are considerably lower (Social Progress Imperative, 2017). For child mortality, the UK has a higher rate (4.2), while Japan and Singapore have the same rate (2.7 deaths per 1,000 live births) (ibid). In addition, all three countries face the problem of income inequality as they all present figures higher than the OECD average (OECD, 2017a; OECD, 2017b; Department of Statistics Singapore, 2016). Regarding gender, Singapore has a remarkably low gender inequality⁵ (0.068), but the figures for Japan and the UK are also low (0.116 and 0.131 respectively), showing few

⁵The scores of the index: 0 equals to complete equality and 1 equals to complete inequality.

differences between men and women (UNDP, 2016).

For public order and safety, all three countries earned high scores in the Social Progress Index: Singapore scored 93.90 out of 100, the score for Japan is 91.66, and that for the UK is 85.45 (Social Progress Imperative, 2017). However, there is still room for improvement, especially in the UK. For house ownership, Japan and Singapore obtained the similar good scores in the indicator of shelter in the Social Progress Index, at 93.25 and 94.28 out of 100, respectively (Social Progress Imperative, 2017). The UK has a lower score of 87.53, due to a much more serious problem of affordable housing compared with Japan and Singapore (ibid). Concerning the job market, the three countries have lower unemployment rates than the world average. The UK has the highest unemployment rate among the three at 4.8% of the total labor force; for Japan it is 3.1%, and for Singapore it is only 1.8% (World Bank, 2017b).

For the environment aspect, the set of indicators for

environmental quality according to the Social Progress Index was examined. Japan has the lowest total score at 83.82 and the highest greenhouse gas emissions (Social Progress Imperative, 2017). In contrast, outdoor air pollution-attributable deaths are significantly higher in Singapore than in the UK and Japan (ibid). Furthermore, Singapore's biodiversity and habitat protection is weaker. While the UK shows positive results for most of the indicators of environmental quality, the greenhouse gas emissions are much higher than in Singapore. The environment conditions in the three countries are generally acceptable. Yet, there is the demand to improve different aspects.

Demand-side actors. The set of country-specific relevant demand-side actors for the three countries is annexed. The presence of these organizations implies the potential demand for impact investments. As the types of actors are different in the three countries, this research only compares the numbers

for three similar forms — NPOs/charities, social enterprises, and cooperatives/cooperative societies — by adjusting the numbers according to population. Compared with Japan and Singapore (both with around 4 per 10,000 inhabitants), the UK has extremely large numbers of NPOs/charities (25 per 10,000 inhabitants). The UK also has the most social enterprises (114 per 10,000 inhabitants). The results show that the UK has a much more active social sector, which provides higher supply and potential for impact investing. A weaker social sector can be more challenging for impact investing growth, as the society is more likely to rely on a traditional approach (the government) to address social issues, which is especially the case for Japan. However, the Japanese and Singaporean government can still apply impact investing, especially with social impact bonds, where the government is actively involved while reducing governmental burdens.

Supply-side actors. The amount of social spending can indicate the government's willingness to address social issues and their potential source of supply. In

addition, it can indirectly justify the need for a cross-sector collaboration to optimize the use of these resources. Except for Singapore, the levels of governmental social expenditure are high. The governments of Japan and the UK spend over 20% of their GDP on social issues (OECD, 2017a). Singapore, on the other hand, spends only 8.2% of its GDP on social development (Singapore Government, 2017). This indicates that the potential supply for impact investment from the government is more than twice as high in the UK and Japan as in Singapore.

The supply for impact investing can also be estimated through the budget of charities and total donations to charities. The charities in Singapore have the highest average budget at USD 4.7 million per year (COC, Singapore Government, 2015), while for the UK it is USD 0.56 million per year (Government of UK, 2017a) and for Japan it is USD 0.43 million per year (Cabinet Office, Government of Japan, 2016). In terms of percent of the national GDP, charities in Singapore receive higher donations

than in the UK and Japan (COC, Singapore Government, 2015; JFRA, 2015; NCVO, 2017). This implies that the potential supply for impact investing is higher for Singapore or the UK. Another finding regards the source of donations, namely from individuals or the corporate/private sector. In Japan⁶, corporate donations are about the same amount as individual donations, while in the UK, corporate donations represent only a small part of the total donations (JFRA, 2015; NCVO, 2017). This additional information is important for developing impact investing because it indicates cultural differences.

As another potential supply for impact investing, Japan holds the most HNWI wealth among the three countries at USD 6.57 trillion, while the figures for the UK and Singapore are lower at USD 2.02 trillion and USD 527.1 billion respectively, according to

⁶For Singapore, there is no comparable data on the sources of donations. However, there are available data for individual donations (NVPC, 2016) and sources of donations of above one million dollars (Coutts, 2015).

Capgemini's Global Wealth Report (2016).

Regarding the amount of actual impact investments, the UK has the largest supply. The Global Sustainable Investment Alliance (GSIA) reflects that the UK currently holds the most sustainable investment assets (7.61% of global assets), whereas Japan has 2.07% and Singapore only 0.02% (GSIA, 2016; Eurosif, 2016). While this calculation has adopted a broader definition for sustainable investment (GISA, 2016), additional information about the market size with a narrower definition of impact investing is available for Japan and the UK. The UK's impact investment value was worth USD 1.92 billion in 2015 (Big Society Capital, 2016), and Japan presented a much smaller market share of USD 0.30 billion (Japan NAB, 2016). These two indicators show that the current impact investing industry in the UK is much more developed compared with Japan and Singapore. However, there are opportunities for the markets in Japan and Singapore to grow, especially when considering the high HNWI wealth in Japan and the larger amount of

donations (% GDP) to charities in Singapore.

A list of selected impact investors in Japan, Singapore and the UK is annexed. The governments of all three countries have started to participate in the impact investing market, such as the Japan Finance Corporation (JFC) in Japan, raiSE in Singapore, and Big Society Capital in the UK. Compared with Japan, Singapore has more international impact investors, such as the LGT Impact Ventures (IV), LeapFrog Investments, and Bamboo Finance.

C. The Human Capital Domain

General education attainment. The development of impact investing as an innovative approach to address social needs will benefit from better education and human resources, as these factors facilitate innovation (Mariz-Pérez et al., 2012). The Education Index from UNDP's Human Development Index measures the average length of education in a country (UNDP, 2016). The three countries all have high scores. The figure for Japan is 0.842 (on a scale

between 0 and 1; 1 being the highest), for Singapore it is 0.814 and for the UK it is 0.896 (ibid). While the figure for Singapore is slightly lower, the country instead presents the highest result concerning tertiary education. According to the Social Progress Index, the duration of tertiary schooling is 1.73 years in Singapore, 1.37 years in Japan and only 0.96 years in the UK (Social Progress Imperative, 2017). To evaluate the quality of education, this study used the OECD's (2015) PISA assessment which targets 15-year-old students in different countries and measures their performance in science, mathematics, and reading. Students in Singapore and Japan presented significantly high achievements in all three subjects, while the performance of UK students was about average for an OECD country (ibid). In addition, only 4.8% of students in Singapore had low performances in all three subjects compared with 5.6% in Japan (ibid). In the UK, 10.1% were low performers in all subjects; this is not much better than other OECD countries (13.0%) (ibid).

Singapore and Japan present considerably better

results in the above indicators, while all three countries have well-developed human capital to a certain extent. The quality and quantity of human resources in Singapore and Japan are highly advanced, compared with the UK and other countries. This provides a positive environment for impact investing. The valuable human capital in Japan and Singapore enables the creation of social innovations. This is especially the case for Singapore, where the performances are outstanding.

Research institutions for impact investing. Whether there is research interest in impact investing in a country can influence the degree of development, since accessible knowledge is essential for innovative ideas. This research highlights a few examples as a proxy for the environment of impact investing research. Impact investing is a new field with unclear boundaries, therefore this research includes NPOs and philanthropy, social impact, social enterprises, social innovation, and social finance. The AVPN's latest report on the landscape of impact investing in Asia identified the key relevant

research institutions in 16 Asian regions (Mohan et al., 2017). Most of the identified research institutions in Singapore are universities, while for Japan there are more non-profit associations and foundations (ibid). In the UK, based on online keyword research, several research institutions exist (see annex). A few research institutions in these three countries have begun to focus on impact investing. It is particularly worth mentioning the establishment of the Social Investment Research Council (SIRC) which consists of five founding members (Big Lottery Fund, Big Society Capital, the Cabinet Office, Citi, and the City of London) and coordinates impact investing research efforts in the interest of key market actors (Big Society Capital, 2015). This is a significant development for impact investing research. However, the field would benefit from further academic engagement. The governments of Japan and Singapore could follow the example of the SIRC initiative in the UK and encourage a research collaboration.

D. The Culture Domain

Culture perspectives on impact investing. Cultural perspectives examine to what extent civil society is willing to engage in addressing social challenges. The World Giving Index provides insights into the attitudes of citizens with regard to helping a stranger, donating money, and volunteering (CAF, 2016). This could be a proxy for understanding the cultural differences regarding impact investing. Among the three countries, the UK obtains the highest rank for philanthropic activities, ranking in the top eight in the world (ibid). Singapore is ranked 28th; the participation in these activities is approximately 10% lower (ibid). Clearly behind the UK and Singapore, Japan is ranked 114th in the world; only 24% of the citizens in the survey participate in philanthropic activities and the score is 30% lower than that of the UK (ibid).

These very different figures demonstrate how the culture of giving differs in the three societies. The UK has a very active social sector that can contribute to

solving social problems and further lead to the development of social innovations. The culture of giving is also promising in Singapore, which represents an enabling factor that supports the growth of impact investing. The culture of giving in Japan, on the other hand, seems weak. This could be a key challenge for developing impact investing there.

Social system. The design of social systems, meaning the general political and economic structures, influences the impact investing ecosystem. Acemoglu and Robinson (2013) have indicated that a nation's development depends on whether their political economic institutions are inclusive of society or extractive for the benefits of a few elites. Inclusive institutions are more likely to promote entrepreneurships and innovations (ibid). Likewise, this can enable social innovations and social entrepreneurship, further supporting the development of impact investing. Based on this theory and the analysis of the World Economic Forum's Global Competitiveness Index (2016), the

economic institutions in research are all qualified as inclusive. The three countries are ranked in the top 10 in the world (World Economic Forum, 2016). To assess the political institutions, the World Bank's (2016) WGI indicators were applied as standards. Japan and the UK's political institutions are more inclusive as they gain positive scores in all WGI indicators. Singapore's political institutions are rather extractive, earning negative scores for voice and accountability. Japan and the UK, where the economic and political institutions are all inclusive, are more likely to enable the development of impact investing. However, Singapore's political economic environment is a special case. While its political power is not well distributed, the government is especially efficient. Moreover, the economic environment is remarkably enabling. As a result, the development of impact investing in Singapore is not limited, though it might be more challenging politically.

E. The Supports Domain

Intermediaries. Intermediaries are important support for the impact investing ecosystem, as they help to develop market infrastructures, build capacity, and improve market efficiency. The focus of this research is to determine whether certain intermediation exists between the supply and demand, and to identify examples. A list of examples⁷ for intermediaries is presented in four categories (see annex). Through this list, this research has collected evidence that intermediaries are currently building the capacity of impact investing in the UK, Japan, and Singapore, with the participation of public, private, and social sectors together. The set of intermediaries is different for the three countries but organizations with similar functions usually exist. In Japan, there seem to be fewer public actors involved in market intermediation. In the UK, the most important examples of

⁷The intermediaries in Japan and Singapore are identified by the AVPN report (Mohan et al., 2017). Additionally, based on keyword research and the information on existing networks, such as the Social Investment Forum (UK) and the Global Impact Investment Network, examples for the three countries are given.

governmental actors include Big Society Capital, CDC which provides tailored overseas investment support (CDC Group, 2017) and a pilot P2P Impact Fund established in 2015 which supports social enterprises in accessing crowdfunding platforms (Cabinet Office, Government of UK, 2015). In Singapore, the National Council of Social Service, raiSE, and Tote Board are quasi-governmental organizations that provide support to social enterprises and the social sector. The philanthropic crowdfunding platform “Giving.sg.” has also been established by the government. In addition, the presence of the social stock exchange platforms in Singapore and the UK gives the two countries a higher level of intermediation than Japan.

Platforms and networks. The existence of networks and platforms is essential for impact investing as they provide information and knowledge that can improve communication and build capacity. A list of networks and platforms, though not exhaustive, is provided in the annex. The three countries have access to platforms with similar functions, from global-level

networks to regional or local ones. The AVPN report has identified the key networks and platforms for Singapore and Japan (Mohan et al., 2017). There are fifteen organizations listed in Singapore, but only seven in Japan. From this aspect, it seems that Singapore has more access to impact investing networks and platforms. This result suggests that the Japanese government could consider putting more effort into building infrastructure support for the impact investment market, while it is evident that the intermediaries, networks and platforms are developing in all three countries.

F. The Finance Domain

Governments in debt. The government's financial condition can show whether the governmental resources are sufficient to address the growing social needs. The World Development Indicators provide information about the revenue and expenses of the governments, as well as the amount of their debt (World Bank, 2017c). It is observed that all three governments are in debt. This reflects why impact

investing is needed in the first place — new solutions are essential for society especially given a lack of traditional resources. The Japanese government has the highest debt (198% GDP) among the three countries (ibid). In the UK and Singapore, the governmental debts are lower at 107.6% GDP and 107.2% GDP, yet still higher than the average of high-income countries (101.1%) (ibid). In addition, the governments of UK and Japan struggle to balance their budgets with deficits. Singapore, on the other hand, keeps a revenue of 2.2% GDP (ibid). In general, there is a demand for impact investing in all three countries because they all face insufficient governmental resources. Especially the UK and Japan could profit from engaging private capital as part of the development of impact investing.

Financial market development. A well-developed financial market is more likely to support the development of impact investing. Singapore and Japan have enabling financial conditions in general for impact investing growth similar to the UK. With regard to economic development in general, the

World Competitiveness Index has shown that all three countries are more advanced than the rest of the world (World Economic Forum, 2016). Notably, Singapore is ranked in the top two in the index, while the UK is in the top seven and Japan in the top eight (ibid). For financial market development in particular, Singapore is ranked second as well, while the UK (16th) and Japan (17th) are at about the same level (ibid). However, Japan and the UK have advantages in market size (ranked fourth, and ninth) in contrast to Singapore's relatively small market (ranked 37th) (ibid). Compared with other economies in the world, the three countries have relatively efficient, trustworthy, and confident market and financial systems. The conditions in the two Asian countries create an enabling environment for impact investing. The smaller market size in Singapore does not limit the development of impact investing.

Financial intermediation for inclusive growth. In addition to the general financial market development, this research further examines the aspect of inclusive economic growth through the “financial

intermediation of real economy investment” pillar by the World Economic Forum’s (2017) new Inclusive Development Index. An inclusive economy enables impact investing to grow. The results show that the three countries all have medium-high financial foundations and environments for inclusive growth. Singapore, with the highest score of 5.50 (from lowest 1 to highest 7) among the three countries, performs in the top 20% among advanced economies (World Economic Forum, 2017). The UK obtained a score of 4.77 (top 40%), and Japan a score of 4.53 (ibid). The financial system inclusion in Singapore has room to improve, especially when compared with the UK. Namely, it can increase the affordability of accessing capital and financial services in the country. The financial intermediation in Japan is also relatively weak compared with Singapore, the UK, and other advanced countries. Therefore, the efficiency of intermediation from assets to investment opportunities needs to be improved to encourage the development of impact investing.

V. Conclusions and Policy Recommendations

The proposed impact investing ecosystem framework provides a comprehensive overview of the actors in the impact investing market and identifies its key challenges and possibilities. The merge and adaptation of the OECD social impact investment framework and the entrepreneurial ecosystem approach has proven as an effective method since it complements the analytical approaches of the two frameworks and allows cross-country comparisons. In this case study, the proposed impact investing ecosystem framework has found overall enabling environments in Japan and Singapore for the development of impact investing, although different challenges exist. While the market demand is relatively small compared with the UK due to fewer apparent social needs, the two Asian countries have similar political economic systems, high-quality human resources and well-developed financial markets. As Japan faces heavy debt and social expenditures and Singapore has a limited budget for social development, impact

investing is beneficial for both countries as a new solution to supplement governmental resources. Essential intermediaries and networks are already developing in both countries to support the market. Consequently, impact investing has great potential to grow in Japan and Singapore. To maximize this potential, public policy plays an important role. Firstly, it is essential that the governments understand how they can influence every determinant of the impact investing ecosystem, e.g. the legal frameworks and existing policies. By supporting enabling factors in all the different domains of this ecosystem, the government can catalyze its development. As the benchmark of the UK shows, public policy can build market capacity, increase demand, encourage investors, and provide capital or shape the social systems to invest private capital in social services.

Japan. Japan is a country with high governmental social spending. Since it has the highest debt among the three countries and cannot balance its budget, the government should seek alternative resources to

help solve the growing social issues. Therefore, the demand for impact investing is high. To promote impact investing in Japan, the following suggestions for the government are given. Firstly, when compared with the other two countries, the key challenges are aging, income inequality, unemployment, and the environment (especially greenhouse gas emissions). The government can first examine the current structures of social services in these areas and then provide incentives for impact investments. Secondly, as the Japanese society has a relatively weak social sector, the government should put more efforts into building market capacity and catalyzing private capital. For example, it can become more involved in supporting intermediaries, investing in relevant research, or providing training programs. Additionally, given Japan's unique donation structure, the government can provide tax incentives for the corporate sector to invest in SPOs. The government can also focus on mobilizing the HNWI's in the country because they offer a rich source for impact investing. Thirdly, a legal

framework for social enterprises is needed. The regulatory quality and rule of law in general are relative weaknesses of the Japanese governance compared with the other two countries. A clear framework will allow the government to create tailored tax incentives and attract impact investors. Lastly, the Japanese government should consider the proposals of the Japan Impact Investment Taskforce which provides a comprehensive plan for the development of impact investing in Japan. These proposals, based on the successful experiences of the UK government, can also help to overcome the challenge of a weaker social sector.

Singapore. Singapore has the highest quality and quantity of human resources, the most advanced financial market, and a government that ranks higher on good governance rankings compared to the other two countries. Furthermore, it has more access to international impact investors as well as international and regional impact investing networks than Japan. As a result, the impact investing industry in Singapore is promising. Impact investments can

serve as a great additional resource for solving social problems given the fact that the government has a limited budget. Based on the analysis of this research, the key social challenges are aging, welfare for children and families, income inequality and environmental issues (especially outdoor air pollution, biodiversity, and habitat protection). The government can take all domains of the ecosystem into consideration to enable impact investing and design new interventions that address these problems. Singapore can take advantage of the access to international networks and financial markets to engage impact investors. Additionally, the government can establish a research institution to gain and provide essential knowledge in the field. Lastly, the government can consider introducing social impact bonds to promote impact investing. The implementation of pilot social impact bonds can demonstrate the benefit for society and the cost-effectiveness for the government which would allow Singapore to maintain its low social spending strategy. Given the effectiveness and trustworthiness

of the Singaporean government, there is great potential for these projects to succeed.

References

- Acemoglu, D., & Robinson, J. A. (2013). *Why nations fail: The origins of power, prosperity, and poverty*. Crown Business.
- Achleitner, A.-K., Heinecke, A., Noble, A., Schöning, M., & Spiess-Knafl, W. (2011). Unlocking the mystery: An introduction to social investment. *Innovations*, 6(3), 145–154.
- Ács, Z. J., Autio, E., & Szerb, L. (2014). National systems of entrepreneurship: Measurement issues and policy implications. *Research Policy*, 43(3), 476–494.
- Adner, R. (2017). Ecosystem as Structure: An Actionable Construct for Strategy. *Journal of Management*, 43(1), 39–58. <https://doi.org/10.1177/0149206316678451>
- Asian Development Bank. (2011). *Impact Investors in Asia: Characteristics and Preferences for Investing in Social Enterprises in Asia and the Pacific*. Asian Development Bank. Retrieved from <https://www.adb.org/publications/impact-investors-asia-characteristics-and-preferences-investing-social-enterprises-asia>
- Autio, E., Kenney, M., Mustar, P., Siegel, D., & Wright, M. (2014). Entrepreneurial innovation: The importance of context. *Research Policy*, 43(7), 1097–1108. <https://doi.org/10.1016/j.respol.2014.01.015>
- Big Society Capital. (2015, November 27). Research council. Retrieved June 24, 2017, from <http://www.bigsocietycapital.com/what-we-do/current-projects/research-council>
- Big Society Capital. (2016). *The size and composition of social investment in the UK*. Retrieved from <https://www.bigsocietycapital.com/latest/type/research/size-and-composition-social-investment-uk>
- Borzaga, C., & Defourny, J. (2001). *From third sector to social enterprise*. London: Routledge.
- Borzaga, C., & Defourny, J. (2004). *The emergence of social enterprise* (Vol. 4). Psychology Press.

- Bugg-Levine, A., & Emerson, J. (2011). Impact investing: Transforming how we make money while making a difference. *Innovations*, 6(3), 9–18.
- Bugg-Levine, A., & Goldstein, J. (2009). Impact investing: Harnessing capital markets to solve problems at scale. *Community Development Investment Review*, (2), 30–41.
- Cabinet Office, Government of Japan. (2015). *A Report on the Aggregated Activity Size of Social Enterprises in Japan*. Retrieved from <https://www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwi5yYLOsMzUAhWHuhQKHRKdB6AQFggoMAA&url=https%3A%2F%2Fwww.npo-homepage.go.jp%2Fuploads%2Fkigyouchousummary.pdf&usg=AFQjCNH7nFevKdJOpTK-0JHtnQeYUCchTA&sig2=bWiiQAPTJagAQwRBldIWjA>
- Cabinet Office, Government of Japan. (2016). *Actual Condition Survey on Social Contribution of Specified Nonprofit Corporation and Citizens in 2015 (平成 27 年度 特定非営利活動法人及び市民の社会貢献に関する実態調査)*. Retrieved from https://www.npo-homepage.go.jp/uploads/h27_houjin_shimin_chousa_all.pdf
- Cabinet Office, Government of Japan. (2017). NPO. Retrieved June 16, 2017, from <https://www.npo-homepage.go.jp/>
- Cabinet Office, Government of UK. (2015). P2P Impact Fund: social enterprises get £2 million boost - GOV.UK. Retrieved June 26, 2017, from <https://www.gov.uk/government/news/p2p-impact-fund-social-enterprises-get-2-million-boost>
- Cabinet Office, Government of UK. (2016). Social enterprise: market trends 2014 - GOV.UK. Retrieved June 20, 2017, from <https://www.gov.uk/government/publications/social-enterprise-market-trends-2014>
- Cappgemini. (2016). *Global Wealth Report 2016*. Retrieved from <https://www.worldwealthreport.com/download>

- CDC Group. (2017). Home | CDC Group. Retrieved June 25, 2017, from <http://www.cdcgroup.com/>
- Charities Aid Foundation [CAF]. (2016). *CAF World Giving Index 2016: The world's leading study of generosity*. Charities Aid Foundation (CAF).
- Charity Poptal, Singapore Government. (2017). About Charities And IPCs. Retrieved June 20, 2017, from <https://www.charities.gov.sg/setting-up-a-charity/Pages/About-Charities-And-IPCs.aspx>
- Clark, C., Emerson, J., & Thornley, B. (2014). *The Impact Investor: Lessons in Leadership and Strategy for Collaborative Capitalism*. John Wiley & Sons.
- Cohen, B. (2006). Sustainable valley entrepreneurial ecosystems. *Business Strategy and the Environment*, 15(1), 1–14.
- Commissioner of Charities [COC], Singapore Government. (2015). *Commissioner of Charities (COC) Annual Report 2015*. Retrieved from <https://www.charities.gov.sg/Publications/Pages/Publications.aspx>
- Community Chest. (2017). SHAREasOne. Retrieved June 26, 2017, from <http://www.comchest.org.sg/comchest/SHAREasOne/tabid/1186/Default.aspx>
- Coutts. (2015). *Million Dollar Donor Reports*. Retrieved from <http://philanthropy.coutts.com/en/reports/2015/singapore/finding.html>
- Dacin, M. T., Dacin, P. A., & Tracey, P. (2011). Social Entrepreneurship: A Critique and Future Directions. *Organization Science*, 22(5), 1203–1213. <https://doi.org/10.1287/orsc.1100.0620>
- Department of Statistics Singapore. (2016). *Key Household Income Trends, 2016*. Retrieved from https://www.singstat.gov.sg/docs/default-source/default-document-library/publications/publications_and_papers/household_income_and_expenditure/pp-s23.pdf
- Emerson, J. (2003). The Blended Value Proposition: Integrating Social and Financial Returns. *California*

- Management Review*, 45(4), 35–51.
<https://doi.org/10.2307/41166187>
- European Commission. (2011). Proposal for a Regulation of the European Parliament and of the Council on a European Union Programme for Social Change and Innovation. Retrieved March 21, 2017, from <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011PC0609&from=EN>
- Eurosif. (2016). *European SRI Study 2016*. Retrieved from <https://www.eurosif.org/sri-study-2016/>
- Ferdinand, J.-P., & Meyer, U. (2017). The social dynamics of heterogeneous innovation ecosystems: Effects of openness on community–firm relations. *International Journal of Engineering Business Management*, 9, 1847979017721617.
<https://doi.org/10.1177/1847979017721617>
- Financial Conduct Authority. (2017). Mutuals Public Register. Retrieved June 20, 2017, from <https://mutuals.fsa.gov.uk/Search.aspx>
- Fraiberg, S. (2017). Start-Up Nation: Studying Transnational Entrepreneurial Practices in Israel's Start-Up Ecosystem. *Journal of Business and Technical Communication*, 31(3), 350–388.
<https://doi.org/10.1177/1050651917695541>
- Global Sustainable Investment Alliance [GSIA]. (2016). *2016 Global Sustainable Investment Review*.
- Government of UK. (2016). *Social investment: a force for social change 2016 strategy*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/507215/6.1804_SIFT_Strategy_260216_FINAL_web.pdf
- Government of UK. (2017a). Recent charity register statistics: Charity Commission. Retrieved June 20, 2017, from <https://www.gov.uk/government/publications/charity-register-statistics/recent-charity-register-statistics-charity-commission>
- Government of UK. (2017b). Setting up a social enterprise - GOV.UK. Retrieved June 26, 2017, from <https://www.gov.uk/set-up-a-social-enterprise>

- Harji, K., & Jackson, E. T. (2012). *Accelerating Impact: Achievements, Challenges and What's Next in Building the Impact Investing Industry*.
- Herman, R. P. (2010). *The HIP investor: Make bigger profits by building a better world*. John Wiley & Sons.
- Höchstädter, A. K., & Scheck, B. (2015). What's in a Name: An Analysis of Impact Investing Understandings by Academics and Practitioners. *Journal of Business Ethics*, 132(2), 449–475.
<https://doi.org/10.1007/s10551-014-2327-0>
- Isenberg, D. (2016). Applying the Ecosystem Metaphor to Entrepreneurship: Uses and Abuses. *The Antitrust Bulletin*, 61(4), 564–573.
<https://doi.org/10.1177/0003603X16676162>
- Isenberg, D., & Onyemah, V. (2016). Fostering Scaleup Ecosystems for Regional Economic Growth (Innovations Case Narrative: Manizales-Mas and Scale Up Milwaukee). *Innovations*, 11(1–2), 60–79.
- Jackson, E. T. (2013). Interrogating the theory of change: evaluating impact investing where it matters most. *Journal of Sustainable Finance & Investment*, 3(2), 95–110.
<https://doi.org/10.1080/20430795.2013.776257>
- Japan Fundraising Association [JFRA]. (2015). *Giving Japan 2015*. Retrieved from <http://jfra.jp/wp/wp-content/themes/jfra2015/img/english/pdf/givingjapan2015.pdf>
- Japan National Advisory Board [Japan NAB]. (2014). *The Social Impact Investment Landscape in Japan*. G8 Social Impact Investment Taskforce.
- Japan National Advisory Board [Japan NAB]. (2016). *Current State of Social Impact Investment in Japan 2016*. Retrieved from <http://impactinvestment.jp/2016/09/sii.html>
- Louche, C., Arenas, D., & Cranenburgh, K. C. van. (2012). From Preaching to Investing: Attitudes of Religious Organisations Towards Responsible Investment. *Journal of Business Ethics*, 110(3), 301–320.
<https://doi.org/10.1007/s10551-011-1155-8>

- Mariz-Pérez, R. M., Teijeiro-Álvarez, M. M., & García-Álvarez, M. T. (2012). The Importance of Human Capital in Innovation: A System of Indicators. In *Soft Computing in Management and Business Economics* (pp. 31–44). Springer, Berlin, Heidelberg.
https://doi.org/10.1007/978-3-642-30451-4_3
- Mason, C., & Brown, R. (2014). Entrepreneurial ecosystems and growth oriented entrepreneurship. *Final Report to OECD, Paris*, 1–38.
- Mendell, M., & Barbosa, E. (2013). Impact investing: a preliminary analysis of emergent primary and secondary exchange platforms. *Journal of Sustainable Finance & Investment*, 3(2), 111–123.
<https://doi.org/10.1080/20430795.2013.776258>
- Ministry of Culture, Community and Youth [MCCY], Singapore Government. (2014a). MCCY - Institutions of a Public Character (IPCs). Retrieved June 26, 2017, from https://www.mccy.gov.sg/en/Topics/Charities/Articles/Institutions_of_a_Public_Character.aspx
- Ministry of Culture, Community and Youth [MCCY], Singapore Government. (2014b). VWOs-Charities Capability Fund (VCF). Retrieved June 20, from <https://www.mccy.gov.sg/en/Topics/Charities/Articles/VCF.aspx>
- Ministry of Culture, Community and Youth [MCCY], Singapore Government. (2017a). Co-operative Societies. Retrieved August 4, 2017, from https://www.mccy.gov.sg/en/Topics/Charities/Articles/Cooperative_Societies.aspx
- Ministry of Culture, Community and Youth [MCCY], Singapore Government. (2017b). Mutual Benefit Organisations. Retrieved August 4, 2017, from https://www.mccy.gov.sg/en/Topics/Charities/Articles/Mutual_Benefit_Organisations.aspx
- Ministry of Culture, Community and Youth [MCCY], Singapore Government. (2017c). VWOs-Charities Capability Fund (VCF). Retrieved June 20, from https://www.mccy.gov.sg/en/Topics/Charities/Articles/Central_Co-operative_Fund.aspx

- Mohan, A., Harsh, S., Modi, A., & Gupta, A. (2017). *Social Investment Landscape in Asia*. AVPN.
- Moore, M.-L., Westley, F. R., & Nicholls, A. (2012a). The Social Finance and Social Innovation Nexus. *Journal of Social Entrepreneurship*, 3(2), 115–132.
<https://doi.org/10.1080/19420676.2012.725824>
- Moore, M.-L., Westley, F. R., Tjornbo, O., & Holroyd, C. (2012b). The Loop, the Lens, and the Lesson: Using Resilience Theory to Examine Public Policy and Social Innovation. In Alex Nicholls & A. Murdock (Eds.), *Social Innovation* (pp. 89–113). London: Palgrave Macmillan UK.
https://doi.org/10.1057/9780230367098_4
- National Council for Voluntary Organisations [NCVO]. (2017). UK Civil Society Almanac 2017 / Income data. Retrieved June 20, 2017, from
<https://data.ncvo.org.uk/a/almanac17/income-data/>
- National Council of Social Service [NCSS], Singapore Government. (2017). List of NCSS Members. Retrieved June 20, 2017, from
<https://www.ncss.gov.sg/GatewayPages/Voluntary-Welfare-Organisations/Membership/List-of-NCSS-Members>
- National Volunteer & Philanthropy Centre [NVPC]. (2016). *Individual Giving Survey*. Retrieved from
<https://www.nvpc.org.sg/individual-giving-survey>
- Neck, H. M., Meyer, G. D., Cohen, B., & Corbett, A. C. (2004). An entrepreneurial system view of new venture creation. *Journal of Small Business Management*, 42(2), 190–208.
- Nicholls, A. (2010). The Institutionalization of Social Investment: The Interplay of Investment Logics and Investor Rationalities. *Journal of Social Entrepreneurship*, 1(1), 70–100.
<https://doi.org/10.1080/19420671003701257>
- Nicholls, A., & Opal, C. (2005). *Fair Trade: Market-Driven Ethical Consumption*. SAGE Publications. Retrieved from
<https://books.google.de/books?id=ZzN63m4tEi4C>

- Ormiston, J., Charlton, K., Donald, M. S., & Seymour, R. G. (2015). Overcoming the Challenges of Impact Investing: Insights from Leading Investors. *Journal of Social Entrepreneurship*, 6(3), 352–378.
<https://doi.org/10.1080/19420676.2015.1049285>
- Park, J., & Choi, M. (2014). A cross-national study on mobile business: how will ecosystems evolve? *Information Development*, 30(1), 9–21.
<https://doi.org/10.1177/0266666912465975>
- Pilinkienė, V., & Mačiulis, P. (2014). Comparison of Different Ecosystem Analogies: The Main Economic Determinants and Levels of Impact. *Procedia - Social and Behavioral Sciences*, 156, 365–370.
<https://doi.org/10.1016/j.sbspro.2014.11.204>
- Public Interest Commission, Cabinet Office, Government of Japan. (2014). *Promoting Public Interest Activities by the Private Sector*. Retrieved from https://www.koeki-info.go.jp/pictis_portal/contents.do?bunNo=1120733660&meisaiNo=1120832782
- Rangan, V. K., Appleby, S., & Moon, L. (2011). The Promise of Impact Investing. *Harvard Business School, Background Note*, (512-045).
- Seelos, C., & Mair, J. (2005). Social entrepreneurship: Creating new business models to serve the poor. *Business Horizons*, 48(3), 241–246.
<https://doi.org/10.1016/j.bushor.2004.11.006>
- Singapore Centre for Social Enterprise [raiSE]. (2017). Retrieved June 20, 2017, from <https://www.raise.sg/>
- Singapore Government. (2017). *Analysis of Revenue and Expenditure: Financial Year 2017*. Retrieved from http://www.singaporebudget.gov.sg/data/budget_2017/download/FY2017_Analysis_of_Revenue_and_Expenditure.pdf
- Social Finance UK. (2017). Impact Bond Database. Retrieved August 13, 2017, from <http://www.socialfinance.org.uk/database/>
- Social Impact Investment Taskforce [SIITF]. (2014). *Impact investment: The invisible heart of markets*. OECD. Available at: [http://www.socialimpactinvestment.org/reports/Impact%20Investment%20Report%](http://www.socialimpactinvestment.org/reports/Impact%20Investment%20Report%20)

- 20FINAL [3]. pdf [Accessed 2 October 2016].
Retrieved from
<http://www.ietp.com/sites/default/files/Impact%20Investment%20Report%20FINAL.pdf>
- Social Impact Investment Taskforce [SIITF]. (2017). Global social impact investment steering group. Retrieved July 1, 2017, from <http://socialimpactinvestment.org/>
- Social Investment Forum. (2017) Members. Retrieved from <http://www.socialinvestmentforum.org.uk/members>
- Social Progress Imperative. (2017). Social Progress Index 2017. Retrieved August 11, 2017, from <http://www.socialprogressimperative.org/>
- Stam, E. (2015). Entrepreneurial Ecosystems and Regional Policy: A Sympathetic Critique. *European Planning Studies*, 23(9), 1759–1769.
<https://doi.org/10.1080/09654313.2015.1061484>
- Sunley, P., & Pinch, S. (2012). Financing social enterprise: social bricolage or evolutionary entrepreneurialism? *Social Enterprise Journal*, 8(2), 108–122.
<https://doi.org/10.1108/17508611211252837>
- The Japan Times. (2016, December 2). Diet passes bill to allow use of dormant deposits for public interest. *The Japan Times Online*. Retrieved from <http://www.japantimes.co.jp/news/2016/12/02/business/diet-passes-bill-allow-use-dormant-deposits-public-interest/>
- The Law Society of Singapore. (2016). *Legalese: a legal handbook for community organizations*. Retrieved from [http://probono.lawsociety.org.sg/Documents/LEGALESE_Second%20Edition%20\(web\).pdf](http://probono.lawsociety.org.sg/Documents/LEGALESE_Second%20Edition%20(web).pdf)
- The Nippon Foundation. (2015). Progress Report on Japan's First 3 Pilot Projects. Retrieved June 26, 2017, from <http://www.nippon-foundation.or.jp/en/news/articles/2015/134.html>
- The Organization for Economic Co-operation and Development [OECD]. (2015). Program for International Student Assessment (PISA). Retrieved April 7, 2017, from <http://www.oecd.org/pisa/>

- The Organization for Economic Co-operation and Development [OECD]. (2017a). OECD Statistics. Retrieved June 11, 2017, from <http://stats.oecd.org/>
- The Organization for Economic Co-operation and Development [OECD]. (2017b) Inequality. Retrieved June 11, 2017, from <http://www.oecd.org/social/inequality.htm>
- UK National Advisory Board [UK NAB]. (2014). Building a social impact investment market- The UK experience. Retrieved June 20, 2017, from <http://www.socialimpactinvestment.org/reports/UK%20Advisory%20Board%20to%20the%20Social%20Investment%20Taskforce%20Report%20September%202014.pdf>
- United Nations Development Program [UNDP] (Ed.). (2016). *Human development for everyone*. New York, NY: United Nations Development Program.
- Volkman, C., Tokarski, K., & Ernst, K. (2012). Social entrepreneurship and social business. *An Introduction and Discussion with Case Studies*. Gabler. Wiesbaden.
- Wilson, K. E., Silva, F., & Ricardson, D. (2015). Social Impact Investment: Building the Evidence Base. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2562082
- Wood, D., & Hagerman, L. (2010). Mission investing and the philanthropic toolbox. *Policy and Society*, 29(3), 257–268. <https://doi.org/10.1016/j.polsoc.2010.07.005>
- Wood, D., Thornley, B., & Grace, K. (2013). Institutional impact investing: practice and policy. *Journal of Sustainable Finance & Investment*, 3(2), 75–94. <https://doi.org/10.1080/20430795.2013.776256>
- World Bank. (2016). Worldwide Governance Indicators. Retrieved April 14, 2017, from <http://info.worldbank.org/governance/wgi/index.aspx#reports>
- World Bank. (2017a). Population ages 65 and above (% of total) | Data. Retrieved June 11, 2017, from

- <http://data.worldbank.org/indicator/SP.POP.65UP.TO.ZS>
- World Bank. (2017b). Unemployment, total (% of total labor force) (modeled ILO estimate) | Data. Retrieved June 11, 2017, from <http://data.worldbank.org/indicator/SL.UEM.TOTL.ZS?view=chart>
- World Bank. (2017c). World Development Indicators: Central government finances. Retrieved August 11, 2017, from <http://databank.worldbank.org/data/reports.aspx?source=2&series=GC.REV.XGRT.GD.ZS,GC.XPN.TOTL.GD.ZS,GC.NFN.TOTL.GD.ZS,GC.NLD.TOTL.GD.ZS,GC.AST.TOTL.GD.ZS,GC.LBL.TOTL.GD.ZS,GC.DOD.TOTL.GD.ZS,GC.XPN.INTP.RV.ZS#>
- World Bank. (2017d). World Development Indicators - GDP (current US\$). Retrieved August 11, 2017, from <http://databank.worldbank.org/data/reports.aspx?source=2&series=NY.GDP.MKTP.CD&country=>
- World Bank. (2017e). World Development Indicators - Population, total. Retrieved August 11, 2017, from <http://databank.worldbank.org/data/reports.aspx?source=2&series=SP.POP.TOTL&country=#>
- World Economic Forum. (2016). *The Global Competitiveness Report 2016–2017*. Retrieved from <http://reports.weforum.org/global-competitiveness-index/>
- World Economic Forum. (2017). *The Inclusive Growth and Development Report 2017*.

Annex. Indicators for the Impact Investing Ecosystem Framework.							
Actors/Factors	Data Sources and Dates	Indicators	Unit	Japan	Singapore	UK	
Domain: Policy							
Leadership							
General political context	Worldwide governance indicators (WGI) 2015 (World Bank, 2016)	Voice and Accountability	Governance score (-2.5 to +2.5)	1.0 [79.3]	-0.1 [42.9]	1.3 [92.1]	
		Political Stability and Absence of Government Effectiveness	[Percentile Rank (low: 0 to high: 100)]	1.0 [82.4]	1.2 [93.3]	0.6 [62.4]	
		Regulatory Quality		1.8 [95.7]	2.3 [100.0]	1.7 [93.8]	
		Rule of Law		1.2 [85.1]	2.3 [100.0]	1.9 [98.6]	
		Control of corruption		1.5 [89.4]	1.9 [96.6]	1.8 [93.8]	
			1.6 [91.3]	2.1 [97.1]	1.9 [94.2]		
Government							
Legals/regulatory frameworks	Government of UK, 2017b; UK NAB, 2014.; raiSE, 2017; Japan NAB, 2014; Cabinet Office, Government of Japan, 2015	The existence or absence of legal framework for social enterprises	--	No specific legal status	No specific legal status	Not limited to one specific legal status	
				Regulated by the Cabinet Office	Certification: raiSE membership	Specific form: CIC	
Interventions and incentives e.g. tax laws	Japan NAB, 2014; Japan NAB, 2016; The Japan Times, 2016; The Nippon Foundation, 2015; UK NAB, 2014; Government of UK, 2016; raiSE, 2017; Singapore Government (MCCY, 2014a, 2014b, 2017c); Community Chest, 2017; AVPN (Mohan et al., 2017)	Key initiatives, laws, policies, and actions created for impact investing;	--	--	--	--	
		Initiatives to support the development of impact investing	--	• The G8 Social Impact Investment Taskforce	• raiSE (2015) • National Volunteer and Philanthropy Centre (NVPC)	• Social Value Act • The G8 Social Impact Investment Taskforce	
		Tax incentives for non-profits and social enterprises	--	• Furusato Tax (Hometown Tax) System • Tax incentives for public-interest corporations, certified non-profit corporations	• Tax incentives for Institutions of Public Character (IPCs)	• Community Investment Tax Relief (CITR) • Social Investment Tax Relief	
		Providing capital to non-profits and social enterprises	--	• METI: Environmental Community Business Development Program • Osaka Prefectural Government: Social Entrepreneur Support Project • Japan Finance Corporation: Social business support fund	• Voluntary Welfare Organizations (VWOs)-Charities Capability Fund (VCF) • Central Cooperative Fund • raiSE Impact Finance • VentureForGood (Youth)	• Social Outcomes Fund • The Dementia Discovery Fund • Arts Impact Fund • Peer to Peer guarantee fund	
		Other financing support	--	• Enabling the use of funds from dormant bank accounts	• Donation-matching platform: SHARE as One	• Dormant Bank and Building Society Accounts Act	

				• Credit-guarantee system for NPOs		• Big Society Capital
		Social impact bonds	--	• 3 pilot projects	--	• 32 social impact bonds • Department for Work and Pensions Innovation Fund • The Centre for Social Impact Bonds
		Infrastructure support	--	--	--	• Commissioning Academy • Access – the Foundation for Social Investment
		Legal reform	--	--	--	• Charitable Trustees' Duties Reform • Investment Intermediaries Fiduciary Duties Reform
Domain: Markets						
Demand: Social Needs						
Aging	World Bank estimates, 2015	Population aged 65 and above	% of total (World average)	26 [8.3]	12 [8.3]	18 [8.3]
Disability Health	Social Progress Index 2017	Health and wellness	Calculated Score (low: 0 to 10)	79.89	83.78	81.16
Children and families	Social Progress Index 2017 (Social Progress Imperative, 2017)	Maternal mortality rate	Deaths/100,000 live births	5.43	9.98	9.11
		Child mortality rate	Deaths/1,000 live births	2.70	2.70	4.20
	OECD, 2017a; 2017h	GINI Coefficient (household)	0 to 1 (date of data) (OECD)	0.33 [0.318] (2012)	0.402 [0.318] (2016)	0.358 [0.318] (2013)
	Human Development Index (HDI) 2015 (UNDP, 2016)	Gender Inequality Index	0 to 1 (complete equality: 0; complete inequality: 1)	0.116	0.068	0.131
Public order and safety	Social Progress Index 2017	Personal Safety (based on: Shelter based on: Availability of affordable housing Access to electricity Quality of electricity supply Household air pollution-attributable deaths	Calculated Score (low: 0 to 100)	91.66	93.90	85.45
(Affordable) Housing	Social Progress Index 2017 (Social Progress Imperative, 2017)	Shelter based on:	Calculated Score (low: 0 to high: 100)	93.25	94.28	87.53
		Availability of affordable housing	% satisfied	76	75	44
		Access to electricity	% of population	100.00	100.00	100.00
		Quality of electricity supply	Scale (low: 1 to high: 7)	6.55	6.81	6.67
		Household air pollution-attributable deaths	deaths/100,000	0.00	0.00	0.00

Unemployment	World Bank 2016 (modeled ILO)	Unemployment rate	% of total labor force (world)	3.1 [5.7]	1.8 [5.7]	4.8 [5.7]
Environment	Social Progress Index 2017 (Social Progress Imperative, 2017)	Water and Sanitation (based on: Access to piped water, rural access to improved water sources, access to improved sanitation facilities)	Calculated Score (low: 0 to high: 100)	99.58	100.00	99.74
		Environmental Quality based on:	Calculated Score (low: 0 to high: 100)	83.82	87.11	91.88
		Outdoor air pollution-attributable deaths	deaths/100,000	16.83	32.45	22.80
		Wastewater treatment	% of wastewater	56.53	100.00	96.34
		Biodiversity and habitat	Protection (low: 0 to high: 100)	93.25	72.26	98.98
		Greenhouse gas emissions	CO ₂ equivalent per GDP	301.27	141.59	237.80
Demand-Side Actors						
Social enterprises NPOs SPOs Profit-with-purpose businesses Cooperatives	Japan: Cabinet Office: (2017; 2015; Public Interest Commission, 2014); Japan NAB, 2014. Singapore: ralSE, 2016; Singapore Government (COC, 2015; MCCY, 2014a, 2017a, 2017b; NCSS, 2017); UK: Government of UK (2017a; Cabinet Office, 2016); Financial Conduct Authority, 2017	Number of organizations	Number [per 1,000,000 population.]	NPOs: 51,508 [405.13] Certified NPOs ² : 1016 [7.99]	Charities: 2,217 [400.54] IPCs ³¹ : 633 [114.36]	Charities: 167,109 [2,565.82]
				Social enterprises: 205,000 [1612.38]	Social enterprises ³² : 303 [54.74]	Social enterprises: 741,000 [11,377.44]
				Cooperatives: 36,492 [287.02]	Cooperative societies: 85 [15.36]	Cooperative and community benefit societies: 8,208 [126.03]
				•Social welfare organizations: 19,000 [149.44] •Education organizations: 8,000 [62.92] •Associations/Foundation: 41,000 [322.48] •Public-interest corporations: 9300 [73.15]	•Mutual Benefit Organizations: 84 [15.18] •Voluntary welfare organizations (VWOs) ³³ : 473 [85.46]	Community interest companies (CICs): 11922 [183.05]
Supply-Side Actors						
Governments Foundations Institutional investors HNWI and family offices	OECD Social Expenditure (OECD, 2017a; Singapore: Singapore Government, 2017)	Social expenditure (public)	% of GDP [% of OECD average]	23.06 [21.12] (2013)	8.2 [21.03] (2016)	21.49 [21.03] (2016)

SV & VP funds Retail	Cabinet Office, Japan 2016; COC, Singapore Government, 2015; Government of UK, 2017a	Annual charity budget (Japan: NPOs)	total USD [USD ¹⁹ per organization]	22.27 bn ¹⁹ [432 k] (2017)	10.51 bn [4,742 k] (2014)	93.58 bn [560 k] (2014)
	JFRA, 2015; COC, Singapore Government, 2015; NCVO, 2017	Total donations to charity	USD [% of 2014 GDP ¹⁹]	12.96 bn [0.0027]	1.82 bn [0.0059] (2014)	11.14 bn [0.0037]
		Individual donations		6.67 bn [0.0014] (2014)	N/A	9.79 bn [0.0033] (2014/15)
		Corporate/Private sector donation		Corporate: 6.29 bn [0.0013] (2014)	N/A	1.35 bn [0.0005] (2014/15)
	Eurosisf, 2016; GSIA, 2016	Total sustainable investment assets ²⁰	USD [% of global assets]	473.6 bn [2.07]	4.3 bn [0.02]	1,742.0 bn [7.61]
	Big Society Capital, 2015; Japan NAB, 2016.	Impact investment market size	USD	0.30 bn (2016)	N/A	1.92 bn (2015)
	Capgemini: Global Wealth Report, 2016	HNWI Wealth	USD [% of global HNWI wealth]	6,571.4 bn [11.20]	527.1 bn [0.90]	2,024.0 bn [3.45]
		HNWI Population	Population [% of country's total population: ²¹]	2,720.0 k [2.14]	103.6 k [1.87]	552.8 k [0.85]
	Japan NAB, 2016; AVPN (Mohan et al., 2017); keyword research	Examples of impact investors (e.g. impact funds, foundations)	--	• JFC	• LGT Impact Ventures (IV)	• Big Society Capital
				• Nippon Foundation	• Bamboo Finance	• Big Issue Invest
• Mitsubishi Corporation Disaster Relief Fund				• Omidyar Network	• Esmee Fairbairn Foundation	
• Music Securities, Inc.				• East Ventures	• Social Investment Business	
• Gojo & Company, Inc.				• LeapFrog Investments	• UnLtd	
• Fukutake Foundation				• raiSE	• Big Lottery Fund	
• Inamori Foundation				• DBS Foundation	• LGT Impact	
• Benesse Corporation Toyota Tsusho					• City Bridge Trust	
• Globis Capital Partners, KIBOW					• Lloyds Bank Foundation	
		• RBS MicroFinance Funds (MFF)				
Domain: Human Capital						
Education and Training						
General education attainment	Human Development Index (HDI) 2015 (UNDP, 2016)	Education Index (0 to 1)	Low: 0, High: 1	0.842	0.814	0.896
		Mean Years of Schooling	Years	12.5	11.6	13.3

		Expected Years of Schooling	Years	15.3	15.4	16.3				
	Social Progress Index 2017 (Social Progress Imperative, 2017)	Years of tertiary schooling	Years	1.37	1.73	0.96				
	PISA (OECD, 2015)	Student performance in: Science	mean score [OECD countries' average score]	538 [493]	556 [493]	509 [493]				
		Mathematics		532 [490]	564 [490]	492 [490]				
		Reading		516 [493]	535 [493]	498 [493]				
		Low performers in all subjects: (math, reading, and science)	% [% OECD Average]	5.6 [13.0]	4.8 [13.0]	10.1 [13.0]				
Research institutions for impact investing	AVPN (Mohan et al., 2017), keyword research	Examples of research institutions for impact investing	-	<ul style="list-style-type: none"> • Fujitsu Research Institute • Earth Observatory of Singapore, Nanyang Technological University • Centre for Enterprise and Economic Development Research, Middlesex University London 	<ul style="list-style-type: none"> • Japan Foundation Center • INSEAD (Singapore) • Institute for Social Innovation and Impact, University of Northampton 	<ul style="list-style-type: none"> • Japan Fundraising Association (JFRA) • Lien Centre for Social Innovation (LCSI) • iSE 	<ul style="list-style-type: none"> • Japan NPO Center • NUS Asia Centre for Social Entrepreneurship and Philanthropy • Marshall Institute for Philanthropy and Social Entrepreneurship, The London School of Economics and Political Science 	<ul style="list-style-type: none"> • Nippon Foundation • Republic Polytechnic • Oxford University, Saïd Business School 	<ul style="list-style-type: none"> • Sasakawa Peace Foundation • School of Social Sciences, Singapore Management University • SIRC 	<ul style="list-style-type: none"> • Singapore University of Social Sciences (SUSS)
Domain: Culture										
Political Economic Considerations										
Cultural perspectives on impact investing	CAF 2016	World Giving Index	Rank (high:1) [Score %]	114 [24]	28 [44]	8 [54]				
		Participation in: Helping a stranger		138 [25]	79 [50]	33 [61]				

		Donating money		83 [23]	19 [56]	7 [69]	
		Volunteering time		55 [23]	54 [23]	22 [33]	
Social system	Acemoglu & Robinson, 2013; Global Competitiveness	Political institutions	Inclusive or extractive	Inclusive	Extractive	Inclusive	
		Economic institutions	Inclusive or extractive	Inclusive	Inclusive	Inclusive	
Domain: Supports							
Intermediaries: ²							
Funds Independent financial advisors Brokers, dealers Commercial banks Investment banks Social banks Social investment wholesale banks CDFIs Social exchanges Crowdfunding platforms and funds	AVPN (Mohan et al., 2017); Japan NAB, 2016; UK NAB, 2014; Social Investment Forum, 2017; keyword research	Asset managers Incubators Accelerators Capacity builders Consulting support	--	• Arun LLC	• Milaap Social Ventures (SG)	• Arts Impact Fund	
				• Ashoka Japan	• National Council of Social Service	• Big Society Capital	
				• Entrepreneurial Training for Innovative Communities	• NUS Asia Centre for Social Entrepreneurship and Philanthropy	• Bridges Ventures	
				• Hub Tokyo	• raise	• CAN	
				• Impact Hub	• Singapore International Foundation	• CDC	
				• Japan Sustainable Investment Forum (JSIF)	• Tech For Good	• CAF	
				• Japan Venture Philanthropy Fund	• The Impact Hub Singapore	• ClearlySo	
				• Mistletoe	• Tote Board	• FSE Group	
				• NPO Edge	• Tsao Foundation	• Impact Ventures UK (IVUK)	
				• NPO ETIC		• Investing For Good	
	• Social Business Network		• Märten Wetterberg				
	• Social Innovation Park		• NESTA				
	w Social Venture Partners Tokyo		w Social Finance				
	Financial institutions for Impact investing, Community development institutions				NPO Banks:	• DBS Bank	• Big Society Capital
					• Community Youth Bank Momo	• Community Development Council (CDC)	• CAF Bank
					• Mirai Bank	• Community Foundation of Singapore	• Charity Bank
					Community Foundations:	• Tan Chin Tuan Foundation	• Community Development Finance Association (CDFA)
					• The Sanaburi Foundation		• Triodos Bank
	Social exchanges			--	• IIX	• SSX	
	Crowdfunding and fundraising platforms and funds				• Aizu Solar Citizen Fund	• Crowdo	• Crowdfunder
• Give2Asia					• Give2Asia	• CrowdPatch	
• Kanagawa Children's Future Fund					• GiveAsia	• Crowdsled	
				• Giving.sg	• Ethex		

					• Indiegogo	• Hubhub
					• Milaap	• JustGiving Crowdfunding
Networks and Platforms						
Impact investing networks e.g. Investors/Social enterprises	AVPN (Mohan et al., 2017); Japan NAB, 2016; keyword research	Examples of networks and platforms	--	• ANDE Japan	• AVPN	• Edinburgh Social Enterprise
				• AVPN	• BoP Hub	• EngagedX
				• British Council East Asia and China region	• BRIDGE	• EVPA
				• GIIN	• British Chamber of Commerce	• GIIN
				• JFRA	• CSR Asia (Singapore)	• Global Social Entrepreneurship Network (GSEN)
				• JSIF	• Family Business Network Asia	• Social Enterprise Lancashire Network – Selnet
				• Social Business Networks	• Forum for the Future	• Social Enterprise UK
				• Tonic	• GIIN	• Social Investment Forum
					• National Council for Social Service	• Social Value UK
					• raiSE	• UK Sustainable Investment and Finance Association (UKSIF)
					• Singapore Compact for CSR (Global Compact Network Singapore)	
					• Singapore Venture Capital and Private Equity Association (SVCA)	
					• Social Innovation Park	
					• The Impact Hub Singapore	
	• The President's Challenge Social Enterprise Award					
	• Tonic					
Domain: Finance						
Financial Market Development						
Debt Access to capital Microeconomic environment Financial intermediation	World Development Indicators 2015 (World Bank, 2017c)	Central government finances: Revenue (excluding grants)	% of GDP[High-income countries average]	12.6 [25.3]	18.7 [25.3]	35.1 [25.3]
		Expenses		17.2 [28.0]	16.5 [28.0]	38.6 [28.0]
		Total Debt		198.0 [101.1]	107.2 [101.1]	107.6 [101.1]

	Global Competitiveness Index (World Economic Forum, 2016)	Global Competitiveness Index	Scale (low: 1, high: 7) [Rank high: 1]	5.5 [8]	5.7 [2]	5.5 [7]
		Pillar: Macroeconomic environment		4.1 [104]	6.1 [11]	4.4 [85]
		Pillar: Financial Market Development		4.9 [17]	5.7 [2]	4.9 [16]
		Pillar: Market Size		6.1 [4]	4.7 [37]	5.7 [9]
	Inclusive Development Index 2017: Policy and Institutional Indicators (World Economic Forum, 2017)	Pillar: Financial intermediation of real economy investment	Scale (low: 1, high: 7) [top % comparing with peer countries]	4.53 [60]	5.50 [20]	4.77 [40]
		Sub-pillar: Financial System Inclusion		5.23 [60]	5.23 [60]	5.66 [40]
		Sub-pillar: Intermediation of Business Investment		3.83 [60]	5.78 [20]	3.88 [40]
Source: Authors						

ⁱ The authors calculated all of these based on the World Bank Development Indicators (population total, 2015) (World Bank, 2017e).

ⁱⁱ Donations to Certified NPOs are eligible for income tax deduction.

ⁱⁱⁱ IPCs refer to the exempt or registered charities capable of issuing tax-deductible receipts to donors. Donations to the certified IPCs are tax-deductible (Charity Portal, Singapore Government, 2017).

^{iv} Number of Social Enterprises with memberships in the raiSE.

^v Number of VWOs with membership in the National Council of Social Service (NCSS). VWOs are NPOs (service providers) that benefit the community in Singapore (NCSS, 2017).

^{vi} All financial values in the table are estimated by the authors and calculated from local currencies to USD with exchange rates: 1 Euro = 1.12 USD; 1 British Pound = 1.28 USD; 1 Japanese Yen = 0.0090 USD; 1 Singapore Dollar = 0.72 USD (achieved through Google Finance, 2017/06/19).

^{vii} Estimated for the current number of NPOs (51,508) from the average annual income of NPOs by Japan's Cabinet Office in 2015 (Cabinet Office, Government of Japan, 2016)

^{viii} Figures calculated by the authors based on the World Bank Development Indicators (GDP, 2014) (World Bank, 2017d).

^{ix} The assets that are professionally managed under responsible investment strategies.

^x Figures calculated by the authors based on the World Bank Development Indicators (Population total, 2015) (World Bank, 2017e).

^{xi} The list of intermediaries is not exhaustive. In addition, some organizations might function across the categories.

Impact Bonds in the Latin American Context: Policy Transfer Analysis for Mexico, Chile and Colombia¹

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Abstract:

Impact bonds are a recent mechanism to address social issues by involving the private sector, the government, and non-governmental organizations. Among the first candidate countries in Latin America to implement this mechanism are Mexico, Chile and

¹ This paper was presented on Oct 20, 2016, at the 17th International Scientific Conference on Economic and Social Development: Managerial Issues in Modern Business, Warsaw, Poland (pp. 136-151) and published at TARGET – Universität Erfurt on Jan 03, 2017. <http://nbn-resolving.de/urn:nbn:de:gbv:547-201700012>

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Colombia, where pilot projects have already been designed. However, no impact bonds have been implemented yet. This research attempts to identify the distinct constraints within each country that hinder the adoption and implementation of impact bonds through the policy transfer approach. The findings show that the constraints are related to the politicization by interest groups (Mexico), political cycles (Colombia), and the level of the government's centralization (Chile).

Key words: *Development Impact Bonds, Pay for Success Contracts, Public Policy, Policy Transfer, Social Impact Bonds.*

I. Introduction

The pursuit of profits and the solving of social problems are usually considered as two opposing and incompatible objectives. While mainstream investors assume that it is the responsibility of governments and charities to tend to social issues, traditional philanthropic and civil society organizations reject the idea that for-profit businesses promote equality, justice, and defending social causes. In essence, it is assumed that creating economic value is best left to private companies and that improving social welfare is best left to governments and non-profit organizations (Bugg-Levine & Emerson, 2011). This view neglects the materiality of social and environmental externalities of investment decisions.

The emerging impact investment market indicates that the two objectives - make profit and address social issues - can be achieved simultaneously (internalizing non-market consequences) and that they are capable of creating a new investment

market that improves social and environmental conditions.

Impact bonds are becoming a popular mechanism of the impact investment market to tackle social issues and provide financial returns to investors as they use an innovative and preventative approach that brings together the private sector, non-governmental organizations, and the government or a donor agency. The impact bonds are divided into Social Impact Bonds (SIBs) and Development Impact Bonds (DIBs).

The UK initiated the first SIB in 2010, and by the time of this research, more than 40 projects, primarily in developed countries, have been established. In developing countries, DIBs provide a considerable alternative for they do not require the government to pay for the proposed social outcome and therefore avoid budgetary pressures for the government. India developed the first DIB in 2015 with the aim of increasing the school enrollment of girls. In Latin America and the Caribbean, the Inter-American

Development Bank (IADB) started promoting SIBs with resources for technical assistance and feasibility studies through the Multilateral Investment Fund (MIF). Mexico, Chile and Colombia are the first candidate countries in the region to adopt this mechanism. However, despite several proposals and pilot projects designed in these countries, neither SIBs nor DIBs have been applied.

The primary interest of this research is to assess and identify the potential constraints that hinder the implementation of SIBs and DIBs in the three Latin American countries through the policy transfer framework developed by Benson (2009). In this context, we evaluate the possible limitations of the transfer process on the demand side, the programmatic characteristics of the impact bonds, the application constraints and the contextual factors in the selected countries in order to understand why no impact bonds have been implemented so far. The UK and India are used as benchmarks to analyze their transferability.

The first section of this paper explains the concept of impact bonds. The second section provides the methodological framework to identify the potential constraints for the transfer of impact bonds to the selected countries. The third section analyzes and interprets the relevant findings to answer the two research questions: *Why have no impact bonds been implemented yet? Which are the major obstacles for their implementation?* Finally, the fourth section presents the discussion and conclusions.

II. Theoretical Framework and Methodology

A. Social Impact Bonds

Social Impact Bonds (SIB), as one tool of the impact investment market, involve six main stakeholders: investor(s), an intermediary, a service provider, an independent evaluator, and the outcome payer plus the target population (see figure 1). The basic design of an SIB can be modified depending on the social issue and specific contract agreement.

The process starts with the private investors, who provide the funding to a service provider with the necessary expertise to deliver a service that helps the target population. The approach of the planned intervention is usually preventative instead of reactive. If the evaluator validates that the pre-agreed outcomes of the social service are fulfilled, the outcome payer (usually the local or national government) repays the investors (sometimes depending on the level of success). In most cases, the intermediary is in charge of bringing together the different actors, discussing the details of the transaction and raising capital for the project (Goodall, 2014; Instiglio & Thomson Reuters Foundation, 2014; Liebman & Sellman, 2013).

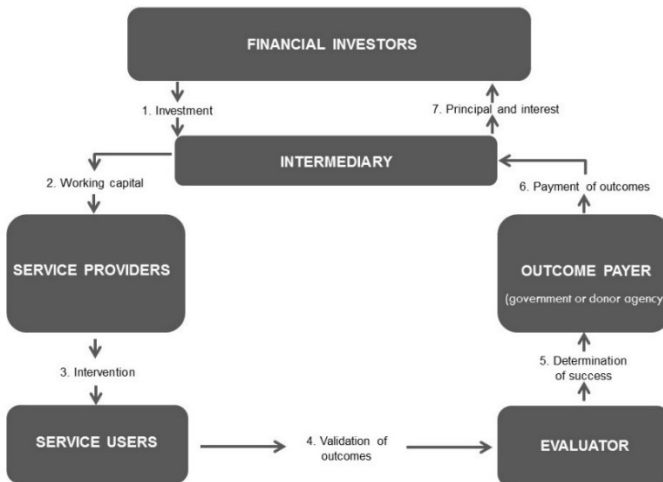
In order to manage the resources and the contracts with the different stakeholders, a legal entity called a Special Purpose Vehicle (SPV), or Special Purpose Entity (SPE), can be created and included as part of the framework (Gustafsson-Wright et al., 2015; Mulgan et al., 2011). Although the SPV does not deliver any services, it acts as the lead organization,

and carries out such tasks as receiving the capital from the private funders, passing the funding to the service provider, ensuring the delivery of the intervention, managing the contracts with the agencies and monitoring their performance, and receiving the outcome payments and transferring them to the investors. This entity is controlled either by the intermediary or the investors. After the investors are repaid, the remainders of the outcome payments are kept by the owner of the SPV.

The SIB framework can vary depending on the stakeholders, the context, and the agreements on the intervention. The contract relation with the outcome funder falls into one of the three types described by Goodall (2014) and Gustafsson-Wright et al. (2015): The first is the *managed impact bond structure*, in which the outcome payer makes a contract with the intermediary or a SPV controlled by the intermediary. The intermediary plays a leading role through the transaction process and is in charge of managing the performance of the service delivery. In the *intermediated structure*, the outcome payer makes a

contract with the investors or a SPV controlled mainly by investors. In this case, the intermediary is still responsible for most of the transactions and is contracted by the investors or the SPV to supervise the performance of the service delivery. The last contract relation is the *direct structure*, in which the outcome payer contracts directly with the service provider. Furthermore, the outcome payer has the leading role and manages the performance of the intervention.

Figure 1. Basic social impact bond model



(Source: authors).

B. Development Impact Bonds

The Development Impact Bond (DIB) scheme, as another tool of the impact investment market, is based on the same principles as the SIB (therefore similar to figure 1). The main difference is the role of the government and the outcome payer. DIBs are designed to be implemented in lower and middle-income countries⁴. Depending on the specific circumstances in the target country, the government may sign a memorandum of understanding with the service provider or DIP (see below) which stipulates that the goals and the approach of the service provider are align with the government's manifesto. But it is usually a foundation, a donor agency, or an international organization (with the support of the host country) which pays the investors fully or

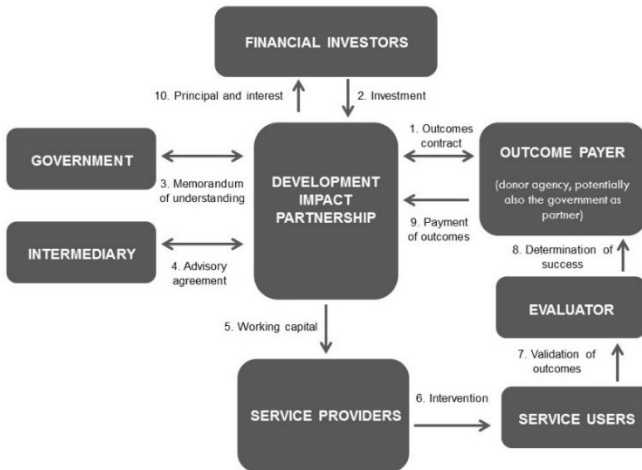
⁴ The middle-income countries are classified in lower-middle-income economies with a per capita income from \$1,026 to \$4,035 USD, and upper-middle-income economies with a per capita income from \$4,036 to \$12,475 USD (UNIDO, 2014; World Bank, 2016a).

partially once the agreed outcomes have been achieved and verified.

According to the Center for Global Development & Social Finance (2013), two basic models can be used for a DIB. In the first model, there is a direct contract between outcome funders and service providers and like in the SIB model, the repayment to the investors depends on the achievement of previously agreed outcomes. The second model uses a Development Impact Partnership (DIP), which is a new corporate entity and has a similar function as the Special Purpose Vehicle (SPV) or Special Purpose Entity (SPE) in the SIBs. The DIP makes contracts with the different parties: the investors, the service providers, the outcome payers, the intermediary and sometimes the government. It is also responsible for the design and implementation of the strategy to deliver the desired outcomes. The donor agencies and partner governments can be involved as co-commissioners. The investors and the DIP make an investment agreement regarding the amount of capital needed, the timeline, and terms of repayment. The investment

capital is transferred to the DIP which uses it to finance the service providers' delivery costs upfront. The outcome payers and the DIP make an outcome contract and establish the conditions of payment to the DIP if the outcomes are achieved (see figure 2). The measurement and the validation of the outcomes are agreed upon by the outcome payers and an independent evaluator that audits the results reported from the interventions.

Figure 2 DIB: Contract via a Development Impact Partnership



(authors, based on Center for Global Development & Social Finance, 2013)

C. The Policy Transfer Framework

When a policy or a program is successful or promising, other governments hope to achieve similar results by adopting it. This is why some SIBs, which have their origins in the UK, have already been adopted in Europe and the United States of America. In political science and public policy analysis, this process of adopting policies and programs from other public bodies is called “policy transfer”. It is understood as *“the process by which knowledge about policies, administrative arrangements, institutions and ideas in one political setting (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political setting”* (Dolowitz & Marsh, 2000, p. 6).

The policy transfer process has four components distributed between the demand and the supply side. On the demand side, there is the need for a policy or program to address a specific issue. The policy-makers can face this demand by implementing

policies from other countries or jurisdictions which already have handled a similar problem. The exporter jurisdiction where the policy was designed represents the supply side. In order to assess whether it is feasible to transfer a certain policy it is essential to know the conditions and characteristics of the program as well as the institutional, political, legal, social and economic context of both the exporter and importer jurisdiction. (Benson, 2009; Page, 2000; Rose, 1993, 2005)

The assumption that a transfer process will lead to a successful policy implementation is not always correct (Dolowitz & Marsh, 2000; Rose, 1993). Possible constraints that could hinder the implementation are the complexity and uniqueness of the policy or program (Rose, 1993), institutional and structural impediments, insufficient economic and political resources (Dolowitz & Marsh, 2000), cognitive constraints in the pre-decision phase, environmental obstacles, and the domestic public opinion (Evans, 2009). Constraints can be classified into four types: the demand side, the programmatic

characteristics of the policy, contextual factors, and application constraints (Benson, 2009; Benson & Jordan, 2011). Based on the constraints and their classification, Benson (2009) proposes an analytical framework to examine the transferability of programs between contexts. To assess whether a policy transfer process could be subject to constraints or not, he associated a series of questions to the factors that could interfere with the adoption of the policy (see table 1). If there are many, difficult constraints (high constraints), the chances of a successful policy transfer are low and it is therefore advisable to create a new policy, though it can be influenced by the original policy. However, if there are few, soft constraints (low constraints), the policy transfer is more likely to be a success and a copy or adaptation of the original policy can be implemented.

Table 1 Factors constraining transferability

Factors constraining transferability	Key questions
<i>Demand side constraints</i>	
Policy demand	Is there a demand for the policy or program?
	Is there potential resistance to transfer?
<i>Programmatic constraints</i>	
Programmatic uniqueness	How unique is the program?
Programmatic complexity	How complex is the program?
<i>Contextual constraints</i>	
Path dependency	Are past policies restrictive or enabling?
Existing structures	Are existing structures restrictive or enabling?
Political context	Is politicization apparent?
Resources	Does the receiving context possess adequate resources for transfer?
<i>Application constraints</i>	
Institutional substitutability	Would new institutional structures be needed?
Scales of change	Is the anticipated scale of change large or small?
Programmatic modification	Are programmatic adjustments needed?

Source: Authors, based on Benson, 2009

D. Methodology

Identifying the current and potential constraints in the adopting countries according to Benson's analytical framework (2009) will be used to assess whether SIBs and DIBs could be applied in the selected Latin American countries Mexico, Chile and Colombia. Furthermore, the current and potential constraints of such an implementation will be identified. The benchmarks for the research are the UK for the SIB and India for the DIB. The UK was chosen because it is where the first SIB emerged and it currently has the most developed market for impact investing across the globe. Furthermore, there is sufficient information available regarding the design of SIBs, the role of the stakeholders and the evidence of the outcomes of the interventions. India was chosen because it was the first and only country to fully implement a DIB. Although the available information is not as abundant, the analysis of its design and implementation process are relevant and useful to understand how developing countries can use the

DIB model and what the necessary conditions for adoption are.

Mexico, Chile and Colombia were chosen as the potential adopting countries for this research. They were selected because the Multilateral Investment Fund (MIF) and the innovation lab for the Inter-American Development Bank group have considered them among the early candidates for the implementation of SIBs in Latin America, and because they already have SIB projects in an advanced design stage (Levey, 2014).

The analysis of possible constraints of the adoption of SIBs and DIBs in Mexico, Chile and Colombia is guided by the key questions formulated by Benson in 2009 (see table 1). On the demand side, the World Development Indicators (WDI) database by the World Bank (2016b) will be used to analyze specific issues like youth unemployment, primary and secondary school attendance, and the prevalence of diabetes. These social issues were chosen because they represent current conditions and basic needs

that are not being met, and because there are potential impact bond projects to address them. Further information will derive from the Gini coefficient by the Organization for Economic Cooperation and Development (2014) which represents the income inequality, and the human development index (HDI) by the United Nations Development Program (2015). The programmatic constraints will be assessed by analyzing the structure of the SIB and the DIB models themselves. Regarding the contextual constraints, the following issues will be evaluated: the existence or absence of a legal framework for the adoption of impact bonds in Mexico, Chile and Colombia; factors such as rule of law, control of corruption, political stability, and government effectiveness from the Worldwide Governance Indicators (WGI) created by the World Bank for the period 2009 – 2014 (2015); the political context and politicization of private interventions in social areas; the status of public resources in social policies, the number of potential service providers, and potential investors. Regarding the application

constraints, we will analyze the institutional structures of the three countries, such as the legal frameworks necessary to adopt an impact bond. The analysis is based on a review of the legal frameworks for SIBs in developing countries by Instiglio and the Thompson Foundation (2014). The methodological limitations of this research are related to the availability of comparable data about the exporting and adopting countries. Furthermore, there is much less information available with regard to the DIB in India compared to the SIBs in the UK.

III. Results

A. Demand side constraints

The social needs in a country represent the demand side of a policy transfer. However, the interest and willingness of the policy-makers to satisfy this demand is crucial.

Is there a demand for the program? Yes. There is a demand for programs and policies that cover social needs in the three Latin American countries.

First, there is a large income inequality within their population. While the average Gini coefficient measured by the OECD is 0.31, Mexico and Chile have the highest income inequality among the OECD countries (0.47 and 0.50 resp.). Colombia, which does not belong to the OECD, has a Gini coefficient of 0.53, which shows an even higher income inequality compared to Mexico and Chile (World Bank, 2016). The UK, as a reference, has a Gini coefficient of 0.34. The Gini coefficient of India was 0.35 in 2011.

The second big issue examined is unemployment, and especially youth unemployment. In the period from 2010 to 2014, the mean unemployment rate in the UK was 7.5% and the mean youth unemployment rate 19.6%, whereas the mean unemployment rate in India was 3.5% and the mean youth unemployment rate was 10.4%. Mexico and Chile have relatively low unemployment rates like India (5% and 6.8% resp.), but while the average youth unemployment rate is 9.6% in Mexico and 16.9% in Chile. Only Colombia shows a higher rate of unemployment and youth

unemployment than the UK in the same period of time (10.6% and 20.7% resp.).

The third issue examined concerns the education sector. In the period from 2010 to 2013, the UK showed the highest enrollment of children in primary school among the selected countries in this study. The rate of unenrolled children was below 1%, the rate of unenrolled adolescents below 2%. In Mexico, the average rate of children not enrolled in primary school is 3.2%, but the average rate of adolescents who do not attend school is 12.6%. In Colombia, the percentage of children out of primary school is 3.1% and the percentage of adolescents out of secondary school is only 0.9% - however, the last available information is a database from 2009. Chile has the greatest percentage of unenrolled children in primary school (6.1%), but it shows a low rate of adolescent school drop outs (1.7%). In India, the rate of children unenrolled in primary school is 5.1%, but the percentage of adolescent school drop outs goes up to 23.2%.

The last examined issue is the prevalence of diabetes as one aspect of health care. In 2015, the prevalence of diabetes in Mexico, Chile and Colombia was 15.8%, 10% and 10% resp. In India, 9.3% of the population has diabetes, while the UK shows the lowest prevalence of the disease with 4.7%.

In summary, there is a demand for action on all the studied issues, though each country faces different challenges and priorities, such as income inequality in Colombia or primary school attendance in Chile.

Is there potential resistance to transfer the program?

No. There does not seem to be any resistance from the policy-makers neither in Mexico, Chile nor Colombia. Since 2014, the three countries have attended meetings organized by the Multilateral Investment Fund (MIF) which aim to promote the use of SIBs in this region. The MIF focuses on developing the right conditions for growing the impact investment market, identifying social needs and possible interventions, assessing the legal framework, and

providing training and advisory support to the interested stakeholders in the model (Multilateral Investment Fund, 2014). Mexico, Chile and Colombia have shown their interest in the use of SIBs, and are considered as the main candidates to focus resources on the development of impact bonds (Levey, 2014). The three countries even started to design projects. In Mexico, the state of Jalisco explored possible interventions to move single mothers permanently out of poverty, while Instiglio (a highly active intermediary in Latin America) conducted feasibility studies concerning the reduction of crime recidivism in Chile, and the reduction of school dropouts and teenage pregnancies in Colombia (Bloomgarden & Levey, 2015).

B. Programmatic Constraints

When a policy or a program present a high degree of complexity, they are less likely to be successfully transferred to another country. In the case of the impact bonds, the complexity does not show in the

concept, but rather in the details of the interventions themselves, which vary from one context to another.

How unique is the program? SIBs and DIBs do not have elements of “uniqueness” in the sense that Rose (1993, 2005) describes, as their implementation is not restricted to a specific place and target population that only exists in a determined space and time. SIBs have already been transferred and applied to various scenarios, in spite of the different contexts and the social issues in the adopting countries. If there is a social issue or a vulnerable population that can be addressed by a preventative and innovative approach, private investors who are interested in financing the model, service providers with the adequate expertise, and a government with the commitment and resources to pay for the outcomes, you can develop an SIB. However, if the budgetary capacity does not allow a government to be the outcome payer, but there are socially motivated private outcome payers, then a DIB is an alternative option. Such features are commonly found in low and middle-income countries

(Center for Global Development & Social Finance, 2013). Both SIBs and DIBs are flexible and adjustable as long as the stakeholders and the legal and institutional frameworks within a country or jurisdiction enable the implementation.

How complex is the program? The degree of programmatic complexity, according to Rose (1993, 2005), can be assessed based on the following features: multiple goals, a vague empirical focus, multiple causes for a desired outcome, unfamiliarity with the original design, and unpredictability of the outcomes. If these features are present, then the program has a high degree of complexity which makes it difficult to be transferred.

The ability to adopt the SIB model depends on the state of knowledge of the adopting country. Until February 2015, Mexico, Chile and Colombia have taken part in the communications strategy and SIB events organized by the MIF (Multilateral Investment Fund, 2015), which means they are familiar with the mechanism. The complexity of the DIB model is

similar to the SIB, as the only difference is the role of the outcome payer, but the model is not explicitly disseminated in any of the selected countries. With regard to the aspect of unpredictable outcomes, it can be said that SIBs and DIBs usually use interventions offered by service providers which have already proven their effectiveness in the past, so the risk for unpredictable outcomes is limited. Furthermore, the outcomes-orientation and the data-based approach of the impact bonds reduce the uncertainties related to multiple goals, vague empirical focus or multiple causes for a desired outcome.

C. Contextual constraints

A policy or a program might be unsuccessful if the context of the adopting countries restricts its functionality. Factors, such as the socioeconomic structure, political context, path dependency or availability of resources, can turn into obstacles if they do not match the conditions of the exporter country.

Path dependency: Are past policies restrictive or enabling the transfer process? Neither Mexico, Chile nor Colombia have a specific law that provides direct references to impact bonds. However, these countries have laws on Public-Private Partnerships (PPPs) that can be used for the contracts and agreements between the government and the intermediary or service providers in an SIB (Honjiyo, 2015).

A review of the legal frameworks in developing countries made by Instiglio and the Thomson Reuters Foundation shows that there is legal leverage for all the stakeholders to take part in the SIB model in Mexico (2014). The review of the Chilean legal structure shows that the political and administrative authorities on a subnational level have a relatively low autonomy to contract with third parties (Ibid). Due to the centralized governmental structure, any negotiation has to be made by the central government, and local governments act primarily as agents that are not allowed to make their own policy decisions (Gatica, 2015; Von Baer &

Torralbo, 2012). In Colombia, although SIBs are not specified in the legal framework, the current legislation allows contracts and agreements between the private and public sector, which can be used for the implementation of impact bonds (Instiglio & Thomson Reuters Foundation, 2014).

Existing structures: Are existing structures restrictive or enabling? Using data from the Worldwide Governance Indicators (WGI), four factors were chosen to compare the performance of the existing structures in the selected countries with the benchmarks for the SIB and the DIB. These factors are the rule of law, control of corruption, political stability and absence of violence, and government effectiveness in the period from 2009 to 2014. The WGI uses percentile ranks to indicate a country's position among the countries covered by the WGI project; a percentile value of 0 corresponds to the lowest rank, and 100 to the highest rank, which means the greater the percentile rank, the better the performance.

The rule of law factor shows to what extent the agents have confidence in society and to what degree they abide by its rules, including contract enforcement, property rights, police, courts and the likelihood of crime. Mexico and Colombia have lower percentile ranks than India (35.34 and 43.47 respectively versus 53.52). Chile on the other hand shows a relatively high performance (87.90), comparable with the UK (93.52).

The control of corruption factor describes society's perception regarding the use of public power for private gain on both a small and large scale, and the degree to which the state is influenced by elites and private interests. Mexico and Colombia have low percentile ranks (40.59 and 44.50 resp.), but slightly better than India (36.40). Again, Chile has a high percentile rank (90.37), comparable to the UK (92.20).

The political stability and absence of violence and terrorism factor measures society's perception of how likely it is to have political instability and/or

politically motivated violence, as well as terror attacks. Mexico shows a low performance (22.95), but performs better than India (12.12). Colombia has the lowest percentile rank (9.19). Chile performs better than the UK (63.42 versus 58.20).

The government effectiveness factor indicates society's perception of the quality of public services, the civil service and its independence from political pressures, policy formulation and implementation, as well as the credibility of the government's commitment to such policies. Colombia has an average percentile rank of 53.54, which is higher than India (51.22), but lower than Mexico (61.75) and much lower than Chile (85.74). The UK reference percentile is 91.39.

Referring to low performance ranks according to the Worldwide Governance Indicators (WGI) from 2009 to 2014, the existing structures in Mexico and Colombia could restrict the transfer process, whereas Chile seems to have very enabling structures.

Political context: Is there obvious politicization?

According to Marta Garcia, a director at Social Finance and leader of impact bond projects in Latin America, the private interventions in the public sector can be politicized by interest groups, the political cycle or internal conflicts (personal communication, June 9, 2016). A SIB in the public healthcare system in Mexico did not take place because it was opposed by the National Union of Social Security Workers (SNTSS). In Chile and Colombia, SIBs were delayed due to political elections.

There has not been any attempt to use a DIB in Mexico, Colombia or Chile yet, but it can be assumed that there are fewer constraints in the political context for this model than in the SIB, since the government has a much smaller role in the scheme. In Mexico, the DIB does not seem to have obstacles unless there is some political interest group taking part in the provision on a social service. In Chile and Colombia, the delay of the adoption of impact bonds has been due to political issues from the government, rather

than the private sector or civil society organizations, so a similar assumption can be made.

Resources: Does the receiving context possess adequate resources for the transfer process? The resources used on an SIB or DIB depend on the agreements and the budgetary capacity of the private investors and the public sector/alternative outcome payer. Furthermore, the number of service providers is a relevant factor to ease the transfer of an impact bond.

The use of public resources shows the capacity and interest of governments to improve the living conditions of their population. The average public expenditure on education is 5.1% of the GDP in Mexico, 4.6% in Colombia and 4.3% in Chile, which is more than in India (3.5%), but less than in the UK (5.6%). In regard to healthcare, the government expenditure as a percentage of the GDP is 11.4% in Mexico, 14.6% in Chile and 18.2% in Colombia, which exceeds 4.5% in India. The UK allocates 16.2% of their GDP to the healthcare system.

With respect to the investments needed to fund impact bonds, the attraction of investors plays a crucial role. In Latin America, impact investing is gaining traction. According to the Annual Impact Investor Survey, the region is one of the leading areas in terms of allocated capital, and investors have expressed strong interest in increasing the investment amount in 2016 (GIIN, 2016). Currently, the region has 11% of the global impact investing assets under management, approximately US\$6.6 billion (Ibid).

Mexico, Chile and Colombia have a well-developed environment in regard to third sector organizations. According to the International Center for Not-for-Profit Law, the non-profit sector in Mexico is composed of 19,777 active civil associations and 3,135 private assistance institutions (2016). Chile has approximately 31,399 non-profit organizations classified as NGOs, according to the National Register of Legal Entities (Ministerio Secretaría General de la Presidencia, 2013; Soto Coronado, 2013). According to the *Confederación Colombiana*

de NGOs, in Colombia there are 71,789 non-profit organizations (2016). These organizations can be involved as service providers in the impact bonds scheme in different areas.

D. Application constraints

Application constraints refer to necessary changes in the institutional structures of the adopting country on the one hand or the suggested program on the other hand.

Institutional substitutability: Would new institutional structures be needed? In the case of SIBs, it would not be necessary to create new institutional structures. The current legal framework considering the Public-Private Partnership (PPP) scheme in Mexico could be used for the implementation of SIBs in the country. Similarly, in Chile, the framework for the PPS⁵ can be used for the adoption of the SIB

⁵ Public Procurement System of Chile (PPS), Sistema de Compras Públicas in Spanish

model. In Colombia, two specific laws⁶ on public-private contracts constitute the appropriate legal framework to introduce SIBs, either as part of a direct assignment or a public tender process. In case of the DIBs, there is no necessity to create any new institutional structure, since the agreement is between private entities, whereas the government does not take a leading role in the structure, besides the memorandum of understanding.

Scales of change: Is the anticipated scale of change large or small? The MIF, together with Social Finance (non-profit organization, pioneer on SIBs) is working on the capacity building of intermediaries and governments providing information and training with focus on the benefits of SIBs and the different sectors where they can be used. Depending on the gained level of knowledge, the design of governmental policies will change, as the authorities may focus on the outcomes of social service projects as well as

⁶ See: Instiglio & Thomson Reuters Foundation (2014). Law 1150. Law 1508 on Public-Private Partnerships or Article 355 of the Colombian Constitution.

building alliances and cooperative agreements with the non-profit and private sectors. With regard to DIBs, the expected changes for the government are only small scale since its only task is the memorandum of understanding with the service providers and the evaluator (Marta Garcia, personal communication, June 6, 2016).

Programmatic modification: Are programmatic adjustments needed? The specific interventions as such cannot be copied, they have to be adapted according to the circumstances where they are implemented. An unaltered education DIB, like the one in India, will not have the same effect and outcomes in Mexico, Chile or Colombia, where the causes and conditions of the same social issue can be different. However, the structure of the impact bond itself does not need any alteration, as long as the stakeholders are interested in the model and have a positive impact on the conditions that enable its adoption.

IV. Discussion

In Mexico, there are factors that enable the transfer process of impact bonds, but also some political factors that can potentially restrict their successful implementation. As previously explained, the country has social needs that can be tackled by impact bonds and there is a demand for policies and programs concerning (youth) unemployment, dropouts of primary and secondary school and the population with diabetes.

The factors enabling the transfer process of impact bonds in Mexico are: cooperation and interest from the government, adaptability of the models, legal structure, and the conditions and resources of the potential stakeholders. There is no apparent resistance to the use of SIBs from the side of the government and most likely this also applies for the DIBs, since the government would spend less resources and be less involved than in the SIB model. There are no programmatic constraints within the structure of the impact bonds. The Mexican law

on PPPs enables the adoption and implementation of SIBs, and although the law is not specific, the contracts could be concluded. Nevertheless, a legal specification on the SIB model would be advisable. In case of the DIBs, there would be a contract between private entities, with the recognition of such contract by the state and the memorandum of understanding accordingly. For impact bonds in general, Mexico has a well-developed environment of third sector organizations that can take part as service providers. Impact investments are growing in the country, and those resources could be allocated to impact bond projects.

The structural constraints of the transfer of impact bonds to Mexico are related to factors such as rule of law, control of corruption, political stability and absence of violence. The low performance (according to the percentile rank by the WGI) for the rule of law in Mexico implies that the conditions concerning contract enforcement, property rights, courts and the police, can potentially hinder the implementation and performance of SIBs and DIBs.

Furthermore, the recent violence in the country - due to the war on drugs - could discourage investors and service providers to work in some areas of the country.

Besides the structural constraints, the politicization in Mexico plays a decisive role. The main problem fields are public healthcare and education, which both have the largest labor unions in Latin America: the SNTSS in the healthcare and social security sector, and the National Educational Workers Union (SNTE) and the National Coordinator of Education Workers (CNTE) in the public education system. In politicized sectors, the risk of an opposition towards impact bonds by interest groups can be high. If an impact bond is implemented in such sectors, the interest groups have to be informed about the process of the intervention and its goals in order to avoid any misunderstandings. It is important to make clear that impact bonds are not intended as a substitute or replacement for the public services provision, but as a complementary preventative approach to the governmental functions. In the state of Chiapas, the

performance-based pilot contract designed by Instiglio to increase high school enrollment does not have any opposition because it does not compete with the teachers or the institutions. Also, the pilot SIB to lift single mothers out of poverty in the state of Jalisco has not faced any controversy because it complements – not substitutes - a current governmental program, where they receive a direct transfer of resources.

In the Chilean context, many factors seem to enable the transfer of impact bonds in general, though the SIB model seems more suitable than a DIB. Although Chile has the highest income inequality among the OECD countries, the HDI is higher than in all the other Latin American countries, except for Argentina. Its social conditions and policy demands are more similar to developed countries than developing countries. However, there is a demand for programs related to youth unemployment, primary school drop outs and diabetes prevention.

The factors that enable the transfer of impact bonds in Chile are the current legal structures and the apparent lack of political instability and application constraints. SIBs can be adopted through the Public Procurement System of Chile (PPS). Although the PPS does not specify the use of SIBs, it can be used to enforce the contract between the public and the private sector. Nevertheless, a specific law on SIBs would be advisable. A DIB would not require the PPS framework because it constitutes a private contract between the investors and the outcome payer, together with the memorandum of understanding by the government. Chile has a high ranking (according to the WGI) in regard to contract enforcement and property rights, a low likelihood of crime, and the public has a positive perception of the courts, police, and control of corruption. The perception of political stability and absence of violence is even higher than in the UK. There is also a rather positive perception with regard to the government's commitment to its policies, the public and civil services and the policy formulation.

It seems that the biggest constraint has been the high level of centralization of the government. The local governments are not competent to take part in the SIB scheme. Only the central government, through the Ministry of Finance, which allocates budgets and is responsible for the efficient use of public resources, can agree to the implementation of an SIB (Gatica, 2015). Another aspect seems to be a lack of political will from the government. Although a feasibility study on a project on crime recidivism started in 2014, there is yet no binding commitment from the central government and the negotiations have been delayed repeatedly due to electoral processes in 2016 and 2017. An implementation before 2018 is unlikely.

In Colombia, the factors that enable the transfer of the impact bonds model are the demand for programs and policies to solve social issues, the low resistance to this mechanism and the legal framework. There is a demand for action concerning (youth) unemployment, school drop outs and diabetes. There is a low resistance to the introduction

of pilot SIBs presented by Instiglio and the projects were considered by both the local and national government as they address a better child education, unemployed youths, and youths in vulnerable situations, which is coherent to the demands shown in this research.

Although the country has a low performance with regards to the rule of law and the control of corruption, the implementation of impact bonds is possible. The medium performance of the government's effectiveness is an enabling factor, since the investors can trust that the government will repay them if the pre-established outcomes are achieved.

The current legal framework allows the implementation of SIBs, though not specified in the legislation. The contracts between the public and private sector can take place as established by the PPP regulation, the regulation on procurement with public resources and the direct contracting of non-profit entities focused on activities of public interest

and social development. Similar to the cases of Mexico and Chile, SIBs are strongly promoted in Colombia, but there have been no intentions to introduce DIBs.

The restrictive factors that have delayed the implementation of SIBs in Colombia are related to political cycles as well as the potential instability and violence in the country. As in the case of Chile, the lack of commitment from the government has hindered further conversations about SIB projects. Pilot projects to reduce teenage pregnancy and improve educational outcomes for adolescents in the region of Antioquia started in 2012, but have not yet been implemented. A project to improve the employability of vulnerable youths has not taken place either, although it has already proven its effectiveness through a pilot project that is expected to be scaled soon. Out of the five analyzed countries, Colombia has the lowest rating concerning political stability and absence of violence, which could discourage investors and hinder the work of service providers, like in Mexico. However, the country has

shown great advances in security measures since the 1980s and 1990s. Furthermore, the peace treaty with the paramilitary under the Uribe administration and the peace treaty with the guerillas under the current President Juan Manuel Santos in 2016, are likely to reduce the restrictive character of this factor.

V. Conclusions

Impact bonds are capable of aligning financial rewards with social outcomes, and bringing together the expertise of the public, private and third sector to work on the same goal, despite their different backgrounds and incentives. Among the benefits of impact bonds are the potential savings for the government, the stable access to resources for the third sector, and the financial and social motivation of the investors. Due to the preventative approach of SIB intervention models, the public sector can save resources because the program or policy will help reduce the public expenditures on social problems in the future. In the DIB model, although the government is not an outcome payer, it benefits from

the improvement of the quality of life of its population. The third sector organizations obtain stable resources to perform their social activities, and hereby get the opportunity to be innovative. Lastly, the private sector obtains a rate of return – if the expected outcomes are achieved - and accomplishes the goal to make a positive impact on society.

In Latin America and the Caribbean, the Multilateral Investment Fund has promoted the use of SIBs, since it considers them suitable for the region, meanwhile they have ignored DIBs as an alternative. In general terms, the structure and features of the SIB and the DIB model can be used in Mexico, Chile or Colombia. The major obstacles for the adoption of impact bonds are related to the politicization by interest groups in Mexico, the political cycles in Colombia, and the level of the government's centralization in Chile. The implementation of both social and development impact bonds in the three Latin American countries should be promoted insistently with the aim of reducing social issues while saving governmental resources. Furthermore,

the policy-makers should address the individual restraints of the application of the impact bond model in their country, as identified in this study.

Literature

- Benson, D. (2009). *Review article: constraints on policy transfer*. Centre for Social and Economic Research on the Global Environment (CSERGE). Retrieved from http://www.watervgov.org/documents/edm_2009_13%20policy%20transfer%20working%20paper.pdf
- Benson, D., & Jordan, A. (2011). *What Have We Learned from Policy Transfer Research? Dolowitz and Marsh Revisited*. *Political Studies Review*, 9, 366–378. <http://doi.org/10.1111/j.1478-9302.2011.00240.x>
- Bloomgarden, D., Eddy, M., & Levey, Z. (2014). *Social Impact Bonds & Education in Latin America*. Multilateral Investment Fund, Inter-American Development Bank Group, Instiglio.
- Bloomgarden, D., & Levey, Z. (2015, July 15). *Social impact bonds are coming to the tropics*. Retrieved May 2, 2016, from <http://www.fomin.org/en-us/Home/FOMINblog/Blogs/DetailsBlog/ArtMID/13858/ArticleID/3077/Social-impact->
- Bugg-Levine, A., & Emerson, J. (2011). *Impact investing: transforming how we make money while making a difference* (1st ed.). Jossey-Bass.
- Center for Global Development, & Social Finance. (2013). *Investing in Social Outcomes: Development Impact Bonds* (pp. 3 – 116). Retrieved from http://www.socialfinance.org.uk/wp-content/uploads/2014/03/cgd-sf-dibreport_online.pdf
- Cohen, T. (2016, March 14). *RPT-Israel launches first social impact bond to prevent diabetes*. Reuters. Retrieved from <http://www.reuters.com/article/israel-diabetes-bonds-idUSL5N16M3NH>
- Confederación Colombiana de ONG (CCONG). (2016). *Quiénes conforman el sector de las Entidades Sin Ánimo de Lucro- ESAL en Colombia*. Retrieved August 9, 2016, from http://ccong.org.co/ccong/documentos/grafico-i-quienes-conforman-el-sector-de-las-entidades-sin-animo-de-lucro--esal-en-colombia_616

- Dolowitz, D., & Marsh, D. (2000). Learning from Abroad: The Role of Policy Transfer in Contemporary Policy-Making. *Governance: An International Journal of Policy and Administration*, 3(1), 5–24.
- Evans, M. (2009). Policy transfer in critical perspective. *Policy Studies*, 30(3), 243–268. <http://doi.org/10.1080/01442870902863828>
- Gatica, S. (2015). *Bonos de Impacto Social. El contexto en Chile*. Santiago, Chile: Fondo Multilateral de Inversiones (FOMIN). Retrieved from <http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=40355565>
- GIIN. (2016). *Annual Impact Investor Survey 2016*. Global Impact Investing Network (GIIN). Retrieved from https://thegiin.org/assets/2016%20GIIN%20Annual%20Impact%20Investor%20Survey_Web.pdf
- Goodall, E. (2014). *Choosing Social Impact Bonds: A Practitioner's Guide*. Bridges Impact +. Retrieved from http://bridgesventures.com/wp-content/uploads/2014/10/ChoosingSocialImpactBonds_APractitionersGuide.pdf
- Gustafsson-Wright, E., Gardiner, S., & Putcha, V. (2015). *The Potential and Limitations of Impact Bonds: Lessons from the First Five Years of Experience Worldwide* (p. 145). Washington, D.C.: Global Economy and Development Program – Brookings.
- Honjiyo, A. (2015, April 16). *SIBs and PPPs: Expanding cross-sector partnerships to solve social issues*. Retrieved May 2, 2016, from <http://www.fomin.org/en-us/Home/FOMINblog/Blogs/DetailsBlog/ArtMID/13858/ArticleID/2962/SIBs-and-PPPs-Expanding-cross-sector-partnerships-to-solve-social-issues.aspx>
- Instiglio & Thomson Reuters Foundation. (2014, November). *A legal road map for Social Impact Bonds in Developing Countries*. Thomsons Reuters Foundation. Retrieved from <http://www.instiglio.org/wp-content/uploads/2015/02/Legal-Road-Map-for-SIBs-in-Developing-Countries.pdf>

- International Center for Not-for-Profit Law. (2016, June 6). *NGO Law Monitor - Mexico*. Retrieved June 27, 2016, from <http://www.icnl.org/research/monitor/mexico.html>
- Levey, Z. (2014, March 21). FAQ – *Social Impact Bonds in Latin America and new MIF pilot program*. Retrieved May 3, 2016, from <http://www.fomin.org/en-us/Home/FOMINblog/Blogs/DetailsBlog/ArtMID/13858/ArticleID/2265/FAQ-%e2%80%93-Social-Impact-Bonds-in-Latin-America-and-new-MIF-pilot-program.aspx>
- Liebman, J., & Sellman, A. (2013, June). *Social Impact Bonds: A Guide for State and Local Governments*. Harvard Kennedy School, Social Impact Bond Technical Assistance Lab. Retrieved from <http://govlab.hks.harvard.edu/files/siblab/files/social-impact-bonds-a-guide-for-state-and-local-governments.pdf?m=1419347623>
- Ministerios Secretaría General de la Presidencia. (2013). *Personas Jurídicas Sin Fines de Lucro - Portal de Datos Abiertos*. Retrieved June 27, 2016, from <http://datos.gob.cl/dataset/9434>
- Mulgan, G., Reeder, N., Aylott, M., & Bo'sher, L. (2011, March). *Social Impact Investment: the challenge and opportunity of Social Impact Bonds*. The Young Foundation. Retrieved from <http://youngfoundation.org/wp-content/uploads/2012/10/Social-Impact-Investment-The-opportunity-and-challenge-of-Social-Impact-Bonds-March-2011.pdf>
- Multilateral Investment Fund. (2014, March 19). *MIF to test innovative Social Impact Bonds financing model in Latin America and the Caribbean*. Retrieved May 2, 2016, from <http://www.fomin.org/en-us/Home/News/PressReleases/ArtMID/3819/ArticleID/1097/MIF-to-test-innovative-Social-Impact-Bonds-financing-model-in-Latin-America-and-the-Caribbean.aspx>
- Multilateral Investment Fund. (2015). *Social Impact Bond Pilot Program for LAC. Project Status Report: January 2015 - June 2015* (No. MIF: Project Status Report ATN/ME-

- 14332-RG). Inter-American Development Bank. Retrieved from <http://www.iadb.org/en/projects/project-description-title,1303.html?id=RG-M1244>
- OECD. (2014). *Society at a Glance 2014: OECD Social Indicators*. Organization for Economic Cooperation and Development. Retrieved from http://dx.doi.org/10.1787/soc_glance-2014-en
- Page, E. (2000, January 28). *Future Governance and the Literature on Policy Transfer and Lesson Drawing*. Retrieved from <http://personal.lse.ac.uk/Pagee/Papers/EdPagePaper1.pdf>
- Rose, R. (1993). *Lesson-drawing in public policy. A guide to learn across time and space*. New Jersey: Chatham House.
- Rose, R. (2005). *Learning from comparative public policy. A practical guide*. Routledge.
- Soto Coronado, C. (2013, February 22). Registro Nacional de Personas Jurídicas avanza en dos años de vigencia, pero falta de recursos afecta a sus operadores. *El Mercurio*. Santiago de Chile, Chile. Retrieved from <http://www.elmercurio.com/legal/movil/detalle.aspx?Id=901840&Path=/0D/C2/>
- United Nations Development Programme (UNPD). (2015). *Human Development Data (1980-2015)*. Retrieved July 5, 2016, from <http://hdr.undp.org/en/data#>
- United Nations Industrial Development Organization (UNIDO). (2014). *List of Middle-Income Countries*. Retrieved July 5, 2016, from <http://micconference.org/mic/list-of-mics/>
- Von Baer, H., & Torralbo, F. (2012). Chile descentralizado: más desarrollo, más democracia. In *95 propuestas para un Chile mejor. Fundamentos y propuestas para construir una política de Estado en descentralización y desarrollo territorial en Chile*. Grupo Res Publica Chile. Retrieved from <http://95propuestas.cl/site/wp-content/uploads/2013/05/chile-descentralizado-y-desarrollado-heinrich-von-baer-y-felipe-torralbo.pdf>
- World Bank. (2015). *Worldwide Governance Indicators*. Retrieved June 6, 2016, from

<http://info.worldbank.org/governance/wgi/index.aspx#reports>

World Bank. (2016a). *Middle Income Countries Overview*. Retrieved July 5, 2016, from <http://www.worldbank.org/en/country/mic/overview#1>

World Bank. (2016b). *World Development Indicators*. Retrieved June 6, 2016, from <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators>

Debt Portfolios of the Poor: The Case of Street Vendors in Cali, Colombia¹

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Abstract

The informal economy plays a significant role in the job market in Colombia. Cali, the third largest city in Colombia, is characterized by a high percentage of socially and economically vulnerable population groups who take part in the urban informal economy, with street vending as their primary source of income. This paper studies the socioeconomic dimensions of street vendors in Cali. In particular, it examines why they are unable to escape poverty and capitalize on their comparatively high earnings, despite a minimal

¹ An early version of this paper was presented at the SGEM International Conferences on Social Sciences on March 2017 in Wien. And “19th International Conference on Population and Development” in Paris 2017. This paper has been sent for revision at the journal “Sustainable Cities and Society” on Oct 04 2017. ISSN: 2210-6707

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tax burden due to the unregulated nature of their work and benefits from government welfare. The analysis is based on two surveys with 637 participants and 300 participants respectively. The study shows that most of the street vendors do not have access to formal banking systems. Consequently, they usually depend on payday loans with much higher interest rates which absorb a large share of their income and perpetuate their indebtedness, preventing them from improving their living conditions. However, the daily cash flow of street vending masks the high opportunity cost of loans and long-term deficits.

Keywords— Colombia, informal economy, payday loans, public policy, street vendors.

I. Introduction

The informal economy is of particular importance in developing countries around the world. People who work in the informal economy already face numerous challenges (e.g. low educational level, poor economic background) and they are exposed to further social and financial difficulties due to the non-regulated character of the informal sector. In our paper, we examine the informal economic activity of street vendors in the city of Cali in Colombia. The research question driving this research is: *why are street vendors not likely to improve their living conditions despite certain benefits from the government, as well as a comparatively high income?* Our hypothesis is that the main reason why street vendors are unable to improve their living conditions is that they are generally excluded from the formal banking system, therefore, their main source of capital is payday loans offered by moneylenders at predatory interest rates which maintain a vicious cycle of indebtedness. In the first section, we describe the theoretical framework of the

informal economy with focus on Colombia, including the political background and the characteristics of street vending. In the second section, we explain the data and methods to test our hypothesis. The study was divided in three complementary parts (observation only and two different questionnaires) and implemented between December 2014 (study 1) and April 2016 (study 3). We examined the socioeconomic profile as well as the debt portfolio of street vendors at two different markets in Cali – the Downtown market and the Santa Helena market. In the third section, we present the results of our analysis. The obtained data on street vendors is not only compared between the two sites, but also with the average working population in Cali as a reference value. After a discussion of the results in the fourth section, we present our conclusions.

II. Theoretical Background

There is no consensus on the definition of “informal economy”. Generally speaking, the term is used with reference to employment outside formal regulatory arrangements, either in law or in practice (ILO, 2014).

The International Labor Organization (ILO) considers informal economic activities all those that are not covered –or insufficiently covered- by formal arrangements that grant workers access to government protection, rights and representation (Gómez, 2016). The term ‘off the books’ is frequently used because it embodies the non-regulated nature of the sector outside of formal regulation and beyond the taxation regime (Vanek et al., 2012, 2014).

The informal economy plays an essential role in the urban economies of the global South (Bromley 1978; Chen 2005, 2012; Godfrey 2011). In Latin America, it represents nearly half of the non-agricultural employment amongst the working age population (Gomez, 2016).

Colombia follows the Latin American pattern. About half of the working age population obtains their income through an informal economic activity (DANE, 2015). During the past two decades, the reduction of the informal sector has been at the top of the policy agenda. Several laws and institutional

reforms have been enacted. Between 2009 and 2012, 1.7 million informal workers were integrated into the formal economy, and the number of citizens contributing to health and retirement systems increased by 23.5% and 24.3% respectively. Despite these efforts, the proportion of non-agricultural informal employment could only be reduced by three percentage points -from 58% to 55%- between 2009 and 2013 (Gómez, 2016).

The term “informal economy” covers a wide range of economic activities, from garbage collection or street vending by an individual to small companies with less than five employees (ILO-FORLAC, 2014). Our analysis focuses on the sector of street vending because of its role in the dynamics of the urban informal economy and the relevance on the public agenda concerning poverty reduction and urban planning (Bhowmik 2012; Bromely 2000; Cross, 2000).

From a theoretical standpoint, the informal economy has been studied from four perspectives: i) legalist,

ii) voluntarist, iii) structuralist, and iv) dualist. The legalist perspective refers to all regulations and costs imposed by governments that inhibit small entrepreneurs from entering regulated and formal economic activities (Becker, 2004). The voluntarist perspective focuses on the deliberated decision made by informal workers to avoid taxations and regulations (Chen, 2012). The structuralist perspective argues that the informal economy is a subsidiary sector of the formal economy that allows reducing costs and sustains economic growth (Portes and Haller, 2004). The dualist standpoint considers the existence of the informal economy as an outlet to provide income generation to the poor (Chen, 2012). Empirical analyses that have studied the dynamic of street vending in Colombia, concluded that the voluntarist and dualist perspective are deeply intertwined in this context (Martínez, et al, 2017).

Street vending regulation in Colombia has a long history dating back to the 1930's, when the government elicited a legal framework concerning

the control and regulation of its expansion. This regulatory system remained in effect until 2003. Under this framework, street vending was deemed an illegal appropriation of public space and local governments were granted the capacity to evict street vendors from their vending site and confiscate their merchandise (Donovan, 2008). In 2003, the Constitutional Court revised this legal framework. Since then, street vendors have been protected by law, and their eviction from public space is prohibited, unless they are offered equivalent or better income generation opportunities. Consequently, removing street vendors from public space has become very costly for local governments. Given the lack of resources to provide stable jobs or equivalent income, the occupation of public space to sell goods has expanded in large cities in the country (Martínez & Short, 2017).

Street vendors in Colombia are economically and socially vulnerable by many standards. They suffer from poor access to education and their job provides both an unstable income and harsh working

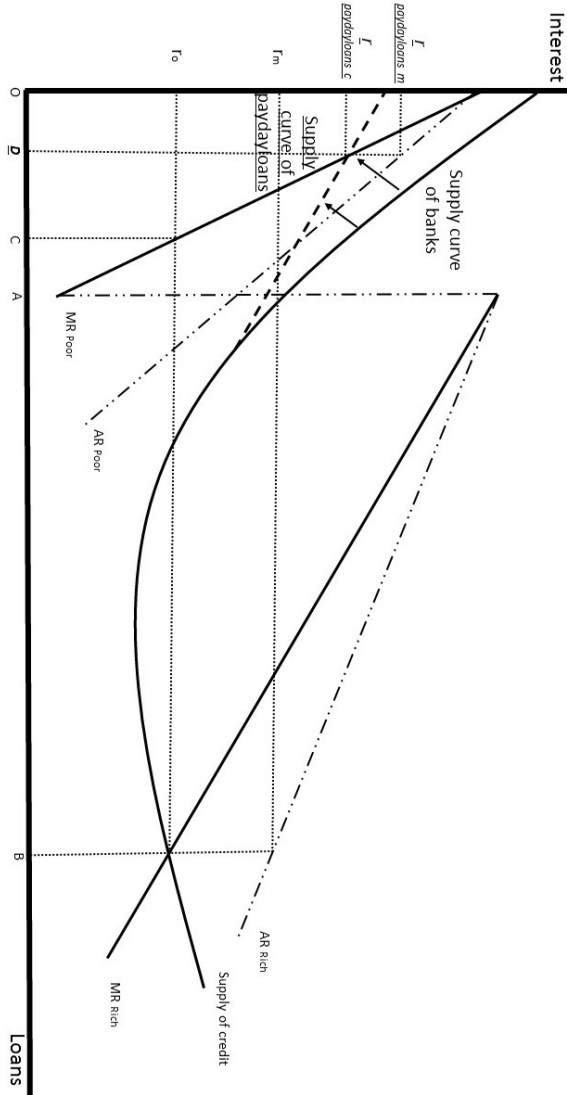
conditions. Furthermore, they tend to be excluded from formal economic structures, like regulated banking systems and retirement plans. These conditions have been reported in different developing regions around the world (Cross, 2000; Swanson, 2007; Chen, 2001). The exclusion of street vendors from the formal banking system is due to various circumstances. For one, they often do not meet certain formal requirements for raising a credit such as formal employment and a co-debtor that can prove financial stability. Furthermore, in the market of credits, the supply curve has a U shape due to asymmetric information and transaction cost which offers low interest rates for rich people (see figure 1: r_o in competitive markets or r_m without competition) but excludes poor people from formal loans (Ashta, 2009). Therefore, the only outlet for accessing formal credit for street vendors is through micro-financing schemes but in many cases, those small credits are tied to business plans that street vendors are not in the capacity to develop. Apart from this, holding a bank account in Colombia generally involves activity

fees (withdrawal and deposits) which can be difficult to afford. Further reasons are the relatively long time frame required to access a loan and the perception that the bank will reject them anyway (Bhowmik & Saha, 2013; Pérez-González et al., 2015). In the absence of a regulated banking system, the black market of payday loans is dominant, because of lower transaction costs and information asymmetry due to their closeness to the community and the potential use of force (Ashta, 2009). As a result, moneylenders are able to push down the supply curve for poorer borrowers but charge much higher interest rates than a formal bank (see figure 1: $r_{\text{paydayloans } c}$ in competition or $r_{\text{paydayloans } m}$ without competition) (ibid). There is evidence that payday loans in Colombia are linked to criminal organizations (Miranda, 2016). As the only resort for easy credit, street vendors are exposed to outrageous interest rates and the violence displayed by criminal organizations in the country.

The decision of the Colombian government to allow street vending as a tool to help eradicate poverty and

protect vulnerable populations has led to the development of urban economic dynamics that incentivize informality but also facilitate the exclusion from regulated and institutional structures, like banking. Though not illegal, street vending remains a non-regulated economic activity. Thus, government efforts to control and reduce the expansion of informal markets are still challenging. In contrast to the idea of supporting the poor, street vending also led to negative consequences because of the demonstrated links with organizations which profit from tax evasion, the mafia, loan sharks and smuggling (Revista Semana, 2016).

Figure 1. Formal and informal credit market



Source: Authors, adapted from (Ashta, 2009)

III. Data and Methods

Our study was conducted in Cali, the third largest city in Colombia with 2.4 million inhabitants. The city is one of the main industrial centers of the country and the major economic hub in the Pacific region. Cali fits in the general pattern of urbanization in Latin America where demographic changes and large migrations into cities have created an environment of poverty and inequality, yet with the potential for many economic opportunities (Cohen, 2006).

According to the Cali planning department, there are nine street vending sites in the city, though the exact number of street vendors who work at each site is unknown. Government interventions focus on the two largest street vending sites, the Downtown market area, and the Santa Helena market. Downtown covers 13 blocks in the middle of the economic and political center of the city. Street vendors in this area are located along main roads and next to formal commerce buildings and storefronts. They offer a wide variety of articles such as clothing, footwear, accessories, games/toys and food among other

products. Santa Helena (3.5 km away from the Downtown) is primarily a street food market located near one of the most violent and distressed areas of Cali. It covers about 12 blocks where formal and informal commerce coexist.

This paper is based on three studies conducted at these two sites. The studies were implemented by the Observatory of Public Policy (POLIS) at the Universidad Icesi in Cali. The first study took place Downtown in December 2014. During the first stage, observational data was collected using a structured guide regarding the type of stall (fixed or mobile), type of products offered and number of people working at each stall. 792 vendors were counted at the site during this phase. In a second stage, pollsters were hired to conduct a detailed survey with 68 structured questions concerning socioeconomic status, family composition, income (including sales and profits), indebtedness, education, life satisfaction and access to government welfare. The survey was completed by 527 street vendors. The respondents were randomly selected in all blocks of

the market, and the survey was conducted while they were at their stall. The pollsters approached the respondents by explaining the objective of the study, assuring confidentiality and emphasizing that the acquired data would be used for academic purposes only. Also, it was made clear that participation was voluntary and they could stop the survey at any time.

The second study was conducted in Santa Helena in January and February 2016. The same methodology and questionnaire were used as at the Downtown site. 245 vendors were counted at the site during the observational phase. 112 randomly selected respondents took part in the above mentioned socioeconomic survey.

As suggested by the data collected from studies 1 and 2, permanent indebtedness is a prominent characteristic of the population of street vendors. In order to verify the effects of permanent indebtedness, a third and final study was conducted at both the Downtown and Santa Helena sites in March and April 2016. A newly structured survey was

designed by the authors to collect information about access to financial institutions and the extent of indebtedness of street vendors. 300 randomly selected street vendors were interviewed, 250 in Downtown and 50 in Santa Helena.

In total, there is complete socioeconomic information on 639 street vendors in Cali (those who answered the questionnaire in the first and second study Downtown and in Santa Helena) plus additional information about indebtedness and access to banking services from a subsample of 300 street vendors.

The socioeconomic information obtained in the first two studies was used to characterize the living conditions and business operation of street vendors. It was then merged with the data obtained in the third study to further examine their debt portfolio and access to regulated banking systems. In this context, the type of merchandise (e.g. watches) was used as a matching variable because on average, vendors report a similar monthly income based on the type of

goods they sell. The reported sales are used as a proxy for income. Total costs are the sum of merchandise cost (investment) and storage cost. Profit is the subtraction of income and total costs. These variables were calculated on a monthly and then daily basis. The values are reported in US dollars (1 US dollar equals 2,000 Colombian pesos). To estimate the indebtedness, an index was created. The “indebtedness index” is the daily amount to cover loans and interests (debt), divided by daily profit and multiplied by 100. The closer the index to 100, the higher the indebtedness level (in some cases, when the profit is negative, this index is also negative). Finally, net income is defined as the subtraction of profit and debt. All calculations were made using Stata. We used descriptive statistics to conduct this analysis.

IV. Results

Table 1 presents part of the information gained about street vendors in Cali who work at the markets Downtown and in Santa Helena (study 1 and 2). As a reference value, it shows the equivalent data (if

available) of the average citizen, which derives from an employment and quality of life survey conducted by the national government and is restricted to the working age population in Cali.

When comparing the data obtained at the two street vending sites in our first and second study, we can observe that the percentage of vulnerable population groups is higher in the Santa Helena market than Downtown, such as women (52% vs. 47%), minorities (blacks and indigenous; 32% vs. 22% and 18% vs. 12% resp.), persons with disabilities (8% vs. 6%) and victims of the armed civil conflict (the so called “displaced”) (23% vs. 14%). Furthermore, the average age is higher in Santa Helena (50 vs. 43 years), and the educational level is lower in Santa Helena than Downtown (10% with high school diploma or higher educational level vs. 28%). The civil status of marriage and cohabitation (as an indicator of familiar stability) is more frequent in the Downtown market (54% vs. 47%), whereas the average number of children is equal (3 children). The street vendors at the Downtown site tend to work a

little longer (10.8 vs. 10.1 daily hours) and more frequently (6.6 vs. 6.1 days per week), but also have a slightly higher average income (USD464 vs. USD431) than in Santa Helena and are less likely to currently pay a loan (37% vs. 44%). On the other hand, the percentage of persons with more than 5 years of professional activity as a street vendor is higher in Santa Helena (87% vs. 69%), as well as the percentage of street vendors located at the same site for more than 5 years (79% vs. 57%). 8 out of 10 street vendors (but only 6 out of 10 debt-free street vendors) are economically responsible for their families. Interestingly, street vendors both with and without debt tend to live in neighborhoods with similar socioeconomic conditions and housing situation.

Table 1. Socioeconomic profile of street vendors in Cali⁴

Characteristic	Downtown	Santa Helena	Average* citizen of Cali
Women (%)	47	52	41
Average age (years)	43	50	40
High school or higher educational attainment (%)	28	10	67
Civil status: marriage and cohabitation (%)	54	47	55
Race: Black (%)	22	32	21
Race: Indigenous (%)	12	18	7
Average number of children	3	3	2
Average Income (USD)**	464	431	367
Daily hours of work (hours)	10.8	10.1	8.5
Days worked per week (days)	6.6	6.1	6
Persons with disabilities (%)	6	8	2.6
Displaced or victim of civil conflict (%)	14	23	/
More than 5 years as street vendor (%)	69	87	/
More than 5 years located at that place (%)	57	79	/
Street vendors currently paying a loan (%)	37	44	/

*Survey of employment and quality of life Cali 2012 – 2013 ** 1 US dollar = 2000 Colombian pesos

Source: Authors

When comparing the information presented in table 1 with the equivalent data of an average citizen of working age in Cali (if available), several differences stand out. First of all, the level of education is distinctly higher (67%) in the average population.

⁴ The calculation of income per hour is not relevant in the Colombian context

Secondly, the percentage of vulnerable groups, such as women (41%), minorities (blacks and indigenous; 21% and 7% resp.) and persons with disabilities (2.6%) is lower. The average citizen also works less daily hours (8.5 hours) and fewer days a week (6 days/week) and is younger (40 years). On the other hand, the income of the average population in Cali is noticeably lower (367USD) when compared with a street vendor Downtown or in Santa Helena. However, only 30% of the street vendors own a home, compared to 52% of the average population. Furthermore, merely 15% of the street vendors pay for their health insurance (non-subsidized), whereas 69% use the subsidized public health system, and 15% do not have any form of health insurance.

Table 2. Debt portfolio of street vendors

Characteristic	Lender	Downtown	Santa Helena
Average interest rates per month (%)	Family	0	0
	Friend	10	10
	Bank	3.8	2.3
	Microfinance	2.7	2.3
	Payday-loan	20.3	20.4
Street vendors in debt by lender (%)	Family	5.4	0
	Friend	3.2	5
	Bank	18.3	10
	Microfinance	24.7	20
	Payday-loan	48.4	65
Average time needed to pay back a loan (months)	/	13.9	9.7

Source: Authors

Most street vendors buy supplies for their businesses on a daily or weekly basis (63% and 21% respectively) from wholesalers. This usually requires a direct full cash payment as there is no credit option. Around 38% of the 300 participants in our third study are currently in debt (113 in total; 93 of 250 participants Downtown vs. 20 of 50 participants in Santa Helena), but 68% of them have been in debt in

the past year (64% Downtown vs. 90% in Santa Helena). The principal purposes of loans are investment in their businesses (71%) and paying back current debts (24%). Table 2 depicts the most interesting details of the debt portfolio, including the distribution of loans by lender, the average monthly interest rates of the different loans and the average time needed to pay the loan back.

The main source of capital are payday loans (51.3%), followed by microfinances (23.9%) and credits from a bank (16.8%). A loan from a friend or family member is rather rare (3.5% and 4.4% respectively). When comparing the debt portfolio according to the vending site, we can observe that the percentage of payday loans of indebted street vendors in Santa Helena is distinctly higher than Downtown (65% vs. 48.4%), whereas the percentage of microfinancing and credits from a bank is lower (20% vs. 24.7% and 10% vs. 18.3% resp.). Interestingly, the average monthly interest rates of the above mentioned loan types are very similar for street vendors in Santa Helena and Downtown, with the only exception of

credits from a bank (2.3% vs. 3.8%). The average interest rate of a payday loan is comparatively high (20.4% and 20.3% resp.), followed by loans from a friend (10%). The interest rates of microfinancing and credits from a bank are considerably lower (2.3% vs. 2.7% and 2.3% vs. 3.8% resp.). The average amount of time required to pay back a loan is over a year (13.1 months), which corresponds to a total interest rate of around 265% for a payday loan. However, the street vendors in Santa Helena need less time to pay off their debts than Downtown (9.7 months vs. 13.9 months). The majority of street vendors (82%) does not have a bank account, which indicates no access to the formal banking system at all. When comparing street vendors with and without debt, the percentage of existing bank accounts is higher among the group with current debts (29% vs. 11%).

Our results, as depicted in Table 3, show that only two products – vegetables and leather goods – generate total losses when looking at the mean value of profits. All the other products show a positive net income and beyond that an indebtedness index

below 35% with the only exception of CDs. Street vendors selling CDs have to spend, on average, 51% of their daily income on debts. The lowest indebtedness indexes could be calculated for phone accessories, watches and juices. The highest mean profits as well as the highest mean net income could be calculated for glasses, phone accessories and watches. The merchandise of phone accessories and watches seems most profitable. However, these products can only be found Downtown, not in Santa Helena. The highest indebtedness indexes could be calculated for CDs, fruits and herbs – apart from vegetables and leather goods with negative indexes due to a negative profit. However, we have to take into account the standard deviation of each calculated mean value for profit, debt and net income. This means that due to a high variation between daily gains and losses as well as the amount of debt between the individual street vendors, some of them might have a high profit whereas others register losses.

Table 3. Daily levels of indebtedness of street vendors

Merchandise	Profit* (Std. Dev.)	Debt* (Std. Dev.)	Net Income* (Std. Dev.)	Indebtedness index (%)**
Vegetables	-15 (66.68)	3,7 (0.47)	-13 (59.15)	-25
Fruits	27 (65.86)	8 (11.08)	18 (64.23)	29
Herbs	34 (20.90)	10 (1.89)	20 (20.19)	28
Juices	33 (55.94)	5 (5.76)	20 (48.59)	16
Glasses	55 (35.31)	10 (7.18)	34 (35.39)	19
CDs/DVDs	13 (17.16)	7 (2.99)	5 (16.75)	51
Leather goods	-7 (49.93)	2 (1.98)	-8 (45.64)	-34
Phone accessories	46 (45.86)	3 (1.73)	33 (41.65)	7
Watches	39 (49.31)	4 (2.64)	31 (46.34)	10

*Values in dollars per day (1 US dollar = 2000 Colombian pesos) ** $(\text{Daily debt payment} / \text{Daily profit}) \times 100$

Source: Authors

V. Discussion

As in many other developing countries in Latin America, the informal sector of the Colombian economy still plays a significant role for a relevant part of the working age population and the national government, mostly due to scarce opportunities in the regulated job market and a low educational level. In our paper, we focus on street vending in Cali, the third largest city in Colombia. Cali is exemplary for an encounter of socially and economically vulnerable population groups, such as refugees from the armed civil conflict (the so called “displaced”) and certain ethnic groups. Apart from that, the educational level among the working age population shows major differences. This generates an environment of poverty and inequality which provides a basis for the emergence of the informal market. Given the nature of street vending, working conditions are particularly harsh and the income is rather unstable. In addition, there are connections between street vending and the mafia, smuggling, and other organizations that profit from tax evasion.

The results of our study show that, on average, street vendors are less educated than the general population in Cali and work longer, but they report higher incomes (above the minimum wage). Furthermore, they usually enjoy a double benefit from the government in terms of an untaxable income as well as free or subsidized access to health care. But despite those benefits, street vendors do not save money, nor do they deposit it in a bank or make medium- or long-term investments due to a lack of access to formal financial markets. One indicator of savings and capitalization is house ownership which is significantly lower among street vendors as compared to the average citizen (30% vs. 52%). The exclusion from regulated financial markets increases the opportunity cost of saving (keeping cash at home can be risky) to the point that being in debt can be seen as a way to save (Banerjee & Duflo, 2007). Furthermore, the limited access to mainstream credit increases the demand for moneylenders offering payday loans which in turn increases the overall cost of capital (Bhutta et al., 2015).

The debt portfolio of street vendors reveals that payday loans are their main source of capital, especially in Santa Helena. Contrary to the experience in some developed countries, street vendors in Cali do not use payday loans to overcome short term shocks, such as medical bills (Bickham & Lim, 2015). They generally rely on this kind of loan for their economic activities, such as purchasing merchandise or repaying other debts. The high interest rates of these loans and the time needed to repay them compound the poverty penalty shouldered by street vendors (Mendoza, 2011).

There are significant differences between the individual street vendors considering their work area and merchandise. Street vendors in Santa Helena, primarily a food market, represent a more vulnerable population group than Downtown as there is a higher prevalence of minorities, handicapped and women, and the population is significantly elder and less educated. Moreover, Santa Helena vendors have been disproportionately affected by the armed conflict, and the market itself faces more crime than

Downtown, which increases the exposure to victimization. The average income is also slightly lower in Santa Helena and the proportion of vendors paying a loan is higher.

As in previous studies about street vendors, we found that fruit and vegetable vendors are more vulnerable. Comparative studies of street vendors revealed profound inequalities within street vendors depending on the good they sell (Roever, 2014). One possible explanation is that vendors in food markets are subject to various commercial risks such as rising prices, unreliable supply chains, natural disasters and climate changes that affect food prices. Vendors in this sector may be unable to externalize rising costs to consumers because of intense competition and customer bargaining. These factors may explain why vegetable vendors report a negative average net income in Santa Helena.

Street vending is a short-term commercial activity that requires a constant cash-flow. Most street vendors buy merchandise from wholesalers on a

daily basis which demands an immediate cash payment. The day-to-day structure of street vending can explain the need for a high indebtedness ratio, because a higher monetary liquidity is needed when the investment is so frequent. Therefore, a substantial proportion of the income is absorbed by debt obligations. Even though an average street vendor earns 20% more than an average citizen in Cali, their apparently higher incomes are counterbalanced by an average level of indebtedness of 26% which implies that street vendors are not generally better-off than the average citizen. However, the high variation in the standard deviation for each calculated value for profit between the individual street vendors suggests that for some of them, street vending is a very profitable activity.

Most street vendors (between 70% and 89%) have been working at the same location for more than five years even though they have been paying interest rates of up to 20% per month, which speaks for their debt repayment capabilities. However, the time frame characteristics of this market (day-to-day) and

criminality increase the opportunity cost of accumulating cash. Since withdrawals and deposits in a formal bank account in Colombia cost a fee, and credits from a bank usually admit only monthly repayments, the traditional financial obligations of the formal sector seem unattractive. Therefore, an affordable loan platform is needed. Nevertheless, this requires a government intervention. So far, the national and local government have concentrated on relocation strategies and permanent control of public space occupation. None of these approaches have been successful (Martinez & Short, 2016). The first step would be to recognize that street vending generates jobs and income for a population that is still excluded from formal markets. Furthermore, any policy intervention can only be effective if it takes into account the current structure of street vending as a day-to-day, cash-based activity. The lack of access to regulated banking services, which results in excessive interest rates of payday loans, stands out as a major problem and may be one cause of a perpetual indebtedness.

The government should develop a new policy strategy. The emergence of impact investors and their idea of achieving both social/environmental and financial returns can offer the capital needed to test innovative financial opportunities for street vendors (Bugg-Levine & Emerson, 2011; GIIN, 2016; Nicholls2010; Rivera Acevedo & Tellez, 2016). A loan platform based on the block-chain technology can reduce exponentially both the transaction cost and the information asymmetry of financial formalization, allowing street vendors to access loans at competitive rates (Aldane, 2016; Nakamoto, 2009). Furthermore, an impact bond can be created to test the concept (Rivera Acevedo & Tellez, 2016).

VI. Conclusions

Our paper contributes to the understanding of the street vendors' inability to overcome poverty despite their comparatively high income given their exclusion from regulated banking systems. The debt portfolio of street vendors reveals that their main source of capital is payday loans offered by moneylenders. The predatory interest rates of these loans

counterbalance the high-income benefits and maintain a vicious cycle of indebtedness, which is one of the main reasons why they are unable to capitalize on their earnings. However, street vending is a cash-based day-to-day activity which masks the high opportunity cost of loans and long-term deficits. Significant differences between individual street vendors can be seen, which are associated with their location and merchandise. According to our study, the street vendors located in Santa Helena represent a more vulnerable population group in terms of educational level, prevalence of minorities and indebtedness. Furthermore, they run a higher commercial risk due to the characteristics of a food market.

The structure of the street vending business and the high cost of capital increases the poverty penalty for street vendors and prevents them from making long-term investments. This means that despite their relatively high income, street vendors, especially in Santa Helena, are by no means better-off than the general population of Cali. A policy intervention is

highly recommended. The rising of impact investing and impact bonds in Colombia can offer the capital and the mechanisms necessary to establish an innovative outcome-based policy strategy. It is recommendable to use a block-chain-based technology to reduce the transaction cost and the information asymmetry of financial formalization. In general, providing suitable access to regulated financial services could be a more effective strategy than the current approach of relocation and control of public space.

References

- Aldane, J. (2016). Bitcoin: a new currency for development? Calameo.com, Development Finance (04), 8–12.
- Ashta, A. (2009). Microcredit Capital Flows and Interest Rates: An Alternative Explanation. *Journal of Economic Issues*, 43(3), 661–683. <https://doi.org/10.2753/JEI0021-3624430305>
- Banerjee, A. V., & Duflo, E. (2007). The Economic Lives of the Poor. *The Journal of Economic Perspectives*, 21(1), 141–167. <https://doi.org/10.1257/089533007780095556>
- Becker, K. F. (2004). The informal economy. *Department of Infrastructure and Economic Co-Operation*, 20 (March), 731–2. <http://doi.org/10.1108/01443330010789214>
- Bickham, T., & Lim, Y. (2015). In Sickness and in Debt: Do Mounting Medical Bills Predict Payday Loan Debt? *Social Work in Health Care*, 54(6), 518–531. <https://doi.org/10.1080/00981389.2015.1038410>
- Bromley, R. (1978). Organization, regulation and exploitation in the so-called 'urban informal sector': The street traders of Cali, Colombia. *World development*, 6(9), 1161-1171.
- Bhowmik, S. (2012). *Street vendors in the global urban economy*. Taylor & Francis.
- Bhowmik, S. K., & Saha, D. (2013). *Financial Inclusion of the Marginalised: Street Vendors in the Urban Economy* (2013th ed.). S.I.: Springer.
- Bhutta, N., Skiba, P. M., & Tobacman, J. (2015). Payday Loan Choices and Consequences. *Journal of Money Credit and Banking*, 47(2-3). <https://doi.org/10.1111/jmcb.12175>
- Bugg-Levine, A., & Emerson, J. (2011). Impact investing: Transforming how we make money while making a difference. *Innovations*, 6(3), 9–18.
- Cross, J. (1998). Informal politics: Street vendors and the state in Mexico City. *Stanford University Press*.
- Cross, J. (2000). Street vendors, and postmodernity: conflict and compromise in the global economy. *International Journal of Sociology and Social Policy*, 20(1/2), 29–51.

- Gómez, E. (2016). Latin America's informal economy some formalisation strategies. Briefing European Parliamentary Research Service. PE 589.783. [http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/589783/EPRS_BRI\(2016\)589783_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/589783/EPRS_BRI(2016)589783_EN.pdf) Accessed August, 15
- Lewis, W. Arthur. 1954. "Economic Development with Unlimited Supplies of Labour", *Manchester School*. 22 (May): 139–91.
- Martínez, L., Short, J. R., & Estrada, D. (2017). The urban informal economy: Street vendors in Cali, Colombia. *Cities*, 66, 34-43.
- Martínez, L., Short, J. R. (2017). The Informal Economy of Cities in The South: The Case Of Cali, Colombia. *International Journal of Sustainable Development and Planning*, 12(4), 637-643.
- Mendoza, R. U. (2011). Why do the poor pay more? Exploring the poverty penalty concept. *Journal of International Development*, 23(1), 1–28. <https://doi.org/10.1002/jid.1504>
- Miranda, Boris. (2016). Qué son los préstamos "gota a gota" que grupos criminales de Colombia exportan al resto de América Latina. BBC Mundo. Accessed August, 16 <http://www.bbc.com/mundo/noticias-america-latina-37708989>
- Nakamoto, S. (2009, March). Bitcoin: A Peer-to-Peer Electronic Cash System. Retrieved from <https://bitcoin.org/bitcoin.pdf>
- Nicholls, A. (2010). The Institutionalization of Social Investment: The Interplay of Investment Logics and Investor Rationalities. *Journal of Social Entrepreneurship*, 1(1), 70–100. <https://doi.org/10.1080/19420671003701257>
- ILO (International Labour Organization) (2014). *Transition to formality in Latin America and the Caribbean*. Lima: ILO, Regional Office for Latin America and the Caribbean.
- ILO-FORLAC (International Labour Organization – Programa para la Formalización de la Informalidad) (2014). *Evolución del empleo informal en Colombia: 2009 –*

2013. Retrieved September 24, 2015, from <http://www.ilo.org/wcmsp5/groups/public/>
- Pérez-González, S., & Muñoz-Molina, Y (2015). "Knowledge and Use of Microcredits Options in Low Income Small Business." *Multidisciplinary Business Review* Vol. 8, no. 2, 44–55.
- Portes, A., & Haller, W. (2004). *La Economía Informal*. CEPAL. CEPAL Serie Políticas Sociales.
- Revista Semana (2016). Bogotá: así se tomaron las bandas el espacio público. <http://www.semana.com/nacion/articulo/bogota-hurto-homicidio-prostitucion-por-espacio-publico-invadido/456786-3> Accessed Nov, 21 2016
- Rivera Acevedo, J. D., & Tellez, L. (2016). Impact Bonds in the Latin American Context: Policy Transfer Analysis for Mexico, Chile and Colombia. Economic and Social Development: Book of Proceedings, Varazdin Development and Entrepreneurship Agency (VADEA), 136–151.
- Roever, S. (2014). Informal economy monitoring study sector report: street vendors. *Cambridge, MA, USA: WIEGO*.
- Swanson, K. (2007). Revanchist urbanism heads south: the regulation of indigenous beggars and street vendors in Ecuador. *Antipode*, 39(4), 708-728.
- Vanek, J., Chen, M., Heintz, J., & Hussmanns, R. (2012). *Statistics on the Informal Economy: Definitions, Findings, and Challenges* (Working Paper No 2). Cambridge, MA, USA: WIEGO.
- Vanek, J., Chen, M., Heintz, J., & Hussmanns, R. (2014). Statistics on the informal economy: Definitions, regional estimates and challenges. *Working Informal Migrant Entrepreneurship And Inclusive Growth Migration Policy Series*, (68).

Debt portfolios of the poor: Survey Data from Street Vendors in Cali, Colombia¹

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Abstract

This paper presents data on the indebtedness of the poor. In Latin America, as in many other developing regions, the poor have no access to credit from

¹ This paper has been sent for revision at the journal “Data in Brief” on Nov 11, 2017. ISSN: 2352-3409

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regulated institutions. Bank fees, transaction costs and lack of durable assets to back up indebtedness exclude the poor from the banking system and forces them to resort to moneylenders for credit at the cost of predatory interest rates. In order to assess the economic implications of payday loans, information about indebtedness was collected amongst the poor population in Cali, Colombia, with a focus on street vendors. A random sample of 300 street vendors was surveyed at two large street vending sites in the city in 2016. Respondents were inquired about income, expenses, household composition, and access to banking services, credit, and indebtedness. This data in brief presents the value of the gathered information, the general characteristics of this research and the methodology used.

Specifications Table

Subject area	Public Policy
More specific subject area	<i>Microfinance</i>
Type of data	Text, dummy and metric variables
How data was acquired	Survey data
Data format	Raw
Experimental factors	None
Experimental features	None
Data source location	Cali - Colombia
Data accessibility	Observatorio de Políticas Públicas – POLIS www.icesi.edu.co/polis/
Related research articles	Martinez, L., Rivera-Acevedo, J.D: (2017). Debt portfolio of the poor: The case of street vendors in Cali, Colombia. Under evaluation.

Value of the data

- There is a lack of information about the link between poverty and access to regulated credit. The information gathered from this study allows an assessment of the economic consequences of credit in form of payday loans amongst the poor and contributes to a better understanding of this phenomenon.

- Data collected among street vendors, who despite their slightly higher income, are still vulnerable due to their instable work environment (Martínez, et al, 2017). Linking the information between poverty, income and lack of access to credit, allows a better understanding of different mechanisms that perpetuate poverty.
- This data is highly relevant for policy making purposes. Most of the government interventions aimed at providing regulated credit to the poor have focused on microfinance loans. However, microfinance credits do not take into account the dynamics and behaviors of the poor in terms of savings and repayment capabilities. Most of the credit programs promoted by the government are not tailored for the needs of the poor.
- Data from this study can be linked with several observable characteristics of informal workers like access to welfare programs and demographic information. By linking this data with broader studies, it will be possible to draft conclusions for larger

populations of workers in the informal economy at the bottom of the social pyramid.

Data

Information about the debt portfolios of the poor was collected in Cali, Colombia. Data were collected through a structured survey. Respondents consisted of 300 street vendors randomly selected at two street vending sites in the city. Field work was conducted between January and February 2016.

Experimental Design, Materials and Methods

Based on the information of the planning department of Cali, there are nine street vending sites in the city. Information presented in this analysis was collected at the two largest sites: Downtown and Santa Helena. The downtown site is located in the heart of the city where most of the government offices are situated. Here, street vendors occupy an area of about 13 blocks that containing a vast range of informal and formal activities. Santa Helena site is a food market that covers about 12 blocks. It is located next to an area with high criminal activity and lies in

the middle of an urban renovation plan by the government called the “green corridor”. Figure 1 presents the locations where the field work was conducted.

For data collection, the authors designed a structured survey (Figure 2). The questionnaire was piloted with street vendors at different sites than Downtown and Santa Helena to test the clarity of the questions and the general structure of the questionnaire. Trained pollsters collected the information alongside two field supervisors. Respondents were selected randomly and pollsters provided an explanation of the purpose of the study. Anonymity was guaranteed and it was made clear that the information would be used for academic purposes only. Participation was voluntary and respondents could stop the survey at any time. We collected 300 complete surveys. 9 respondents quit before the survey ended.

Respondents were asked 66 questions about demographic information (age, gender, and education), indebtedness, income, expenses, the

products they sell, and expectations of their economic future. The uninterrupted survey took about 20 minutes, but since the participants usually continued their work it took about 40 minutes in most cases.

This study follows local and international rules for empirical research. Likewise, respondents provided verbal consent before survey commencement. The survey did not inquire about personal information that allows the identification of any informant. Information about this study is available at: www.icesi.edu.co/polis/.

Acknowledgements

This data in brief is part of a larger investigation of informal economy and street vendors in Cali. Data was collected by the Observatorio de Políticas Públicas -POLIS of Universidad Icesi with the support of students from the master program in Government and the Fundación para el Desarrollo Integral del Pacífico.

Figure 1: Field work locations: Street vending sites in Cali, Colombia.





References

Martínez, L., Short, J. R., & Estrada, D. (2017). The urban informal economy: Street vendors in Cali, Colombia. *Cities*, 66, 34-43

Martinez, L., Rivera-Acevedo, J.D: (2017). Debt portfolio of the poor: The case of street vendors in Cali, Colombia. Under evaluation.

Figure 2: Survey information. Indebtedness of the poor - Street vendors in Cali, Colombia

 		Sub-sample survey street vendors downtown and Santa Elena Access to credit and financial services costs - 2016					
Application date	Month	Day	Survey zone	SE	Downtown		
Address:			Interviewer's name:				
1. Year of Birth _____	2. Gender 1 <input type="checkbox"/> Male 0 <input type="checkbox"/> Female	3. What is the highest educational level you have attained (even if you didn't finish) and the last grade approved in this level? 1 <input type="checkbox"/> None 2 <input type="checkbox"/> Preschool 3 <input type="checkbox"/> Incomplete primary 4 <input type="checkbox"/> Complete primary 5 <input type="checkbox"/> Incomplete secondary 6 <input type="checkbox"/> Complete secondary 7 <input type="checkbox"/> Technical or technology 8 <input type="checkbox"/> Under-graduate degree 9 <input type="checkbox"/> Post-graduate degree			4. Currently, do you contribute to pension programs? 1 <input type="checkbox"/> Yes 0 <input type="checkbox"/> No		
5. Do you have anyone to lend you money? 1 <input type="checkbox"/> Sí 0 <input type="checkbox"/> No	6. Have you made any kind of loan? 1 <input type="checkbox"/> Yes 6.1 How many? _____ 0 <input type="checkbox"/> No (Go to p14)	7. With whom did you make the loan and what is the interest rate? (MULTIPLE CHOICE) Interest rate _____ 1 <input type="checkbox"/> Family _____ 4 <input type="checkbox"/> Payday loans _____ Interest rate _____ 2 <input type="checkbox"/> Friend _____ 5 <input type="checkbox"/> Microfinance institution _____ 3 <input type="checkbox"/> Bank _____ 6 <input type="checkbox"/> Other _____					
8. Have you had several loans at the same time? 1 <input type="checkbox"/> Yes 8.1 How many? _____ 0 <input type="checkbox"/> No	9. Are you currently paying any loan? 1 <input type="checkbox"/> Yes 9.1 How many? _____ 0 <input type="checkbox"/> No (Go to p12)	10. With whom did you make the loan and what is the interest rate? (multiple choice) Interest rate _____ 1 <input type="checkbox"/> Family _____ 4 <input type="checkbox"/> Payday loans _____ Interest rate _____ 2 <input type="checkbox"/> Friend _____ 5 <input type="checkbox"/> Microfinance institution _____ 3 <input type="checkbox"/> Bank _____ 6 <input type="checkbox"/> Other _____					
11. How much money intended for payment of loans? _____	12. On average how long does it take to pay a loan? _____	13. What were the goals of the loans made? (Multiple choice) 1 <input type="checkbox"/> Business 2 <input type="checkbox"/> Debts 3 <input type="checkbox"/> Family 4 <input type="checkbox"/> Free investment 5 <input type="checkbox"/> Other _____		14. Have you ever applied for a loan at a bank or microfinance institution? 1 <input type="checkbox"/> Yes (Go to p15) 0 <input type="checkbox"/> No (Go to p16)			
15. When you applied for the credit, did you get it? 1 <input type="checkbox"/> Yes → 15.1.2 Loan amount _____ 15.1.2 If you are still paying, how long does it take? _____ 15.1.3 If you already paid it, how long did it take to pay? _____		16. Are you reported in credit - data? 1 <input type="checkbox"/> Yes 0 <input type="checkbox"/> No		17. In how much would you sell your business. Approximately? Value _____ 1 <input type="checkbox"/> Would not sell it 0 <input type="checkbox"/> DK			
2 <input type="checkbox"/> No → 15.2.1 ¿Cuál fue la razón? _____		18. If you had the opportunity, where would you like to start a business in Cali? _____		19. What is the best interest rate to access a loan that allows you to expand your business? 1 <input type="checkbox"/> Daily 3 <input type="checkbox"/> Monthly 2 <input type="checkbox"/> Weekly 4 <input type="checkbox"/> Yearly			
20. Type of sale							
1 <input type="checkbox"/> Meat	11 <input type="checkbox"/> Meal	21 <input type="checkbox"/> Miscellany					
2 <input type="checkbox"/> Poultry (chicken, egg)	12 <input type="checkbox"/> Confectionery and cigarettes	22 <input type="checkbox"/> Porcelains					
3 <input type="checkbox"/> Fish/Shop	13 <input type="checkbox"/> Drinks and juices	23 <input type="checkbox"/> Lottery/Chance					
4 <input type="checkbox"/> Fruits	14 <input type="checkbox"/> Grocery store	24 <input type="checkbox"/> Newspapers, magazines, books					
5 <input type="checkbox"/> Vegetables	15 <input type="checkbox"/> Supermarket	25 <input type="checkbox"/> Bags / belts / leather goods					
6 <input type="checkbox"/> Legume (beans, lentils)	16 <input type="checkbox"/> Footwear	26 <input type="checkbox"/> Mobile phone accessories					
7 <input type="checkbox"/> Tuber (potato, yucca)	17 <input type="checkbox"/> Clothing store	27 <input type="checkbox"/> PC accessories					
8 <input type="checkbox"/> Medicinal herbs	18 <input type="checkbox"/> Glasses	28 <input type="checkbox"/> Watchmaking and / or watch repair					
9 <input type="checkbox"/> Dairy products (milk, yogurthy, cheese)	19 <input type="checkbox"/> Minutes	29 <input type="checkbox"/> Tools					
10 <input type="checkbox"/> Restaurant/Bakery/Cafeteria	20 <input type="checkbox"/> CD'S	30 <input type="checkbox"/> Other, which one? _____					

CONTINUATION			
42. To whom or where do you buy the merchandise? <input type="checkbox"/> 1 Directly from the producer <input type="checkbox"/> 2 Wholesale <input type="checkbox"/> 3 Retailer <input type="checkbox"/> 4 You produce it <input type="checkbox"/> 5 Other, which? _____ <input type="checkbox"/> 6 DK	43. What is the payment condition of who sells the merchandise? <input type="checkbox"/> 1 Cash payment <input type="checkbox"/> 2 Credit payment <input type="checkbox"/> 3 Credit/Cash payment <input type="checkbox"/> 4 DK <input type="checkbox"/> 5 Other, which one? _____	44. How much do you sell on average per day? Value _____	
45. Does your business provide you with sufficient resources for your sustenance? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No <input type="checkbox"/> 3 Sometimes <input type="checkbox"/> 4 DK	46. Would you say that your business has improved your income? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No <input type="checkbox"/> 3 DK	47. How much do you think your average profit is? <input type="checkbox"/> 1 Daily <input type="checkbox"/> 2 Weekly <input type="checkbox"/> 3 Biweekly <input type="checkbox"/> 4 Monthly <input type="checkbox"/> 5 DK	48. How much would you sell your business? Value _____ <input type="checkbox"/> 1 Would not sell it <input type="checkbox"/> 0 DK
49. Where do you store your merchandise? <input type="checkbox"/> 1 Cellar <input type="checkbox"/> 2 Parking lot <input type="checkbox"/> 3 At the same place <input type="checkbox"/> 4 House <input type="checkbox"/> 5 Other, which one? _____	50. How much does it cost to store your merchandise? Value _____ <input type="checkbox"/> 1 Daily <input type="checkbox"/> 2 Weekly <input type="checkbox"/> 3 Biweekly <input type="checkbox"/> 4 Monthly		51. Have you received training for the proper handling of food? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No <input type="checkbox"/> 3 Not apply
52. What are the 3 main problems that affect your business? Maximum 3 OPTIONS, ENUMERATE THE ORDER RESPONSE:			
<input type="checkbox"/> (1) Insecurity / theft <input type="checkbox"/> (2) Street vendors competition <input type="checkbox"/> (3) Supermarket chain competition	<input type="checkbox"/> (4) Bribery / extortion <input type="checkbox"/> (5) Taxations from the sale places <input type="checkbox"/> (6) Confiscation of property	<input type="checkbox"/> (7) Lack of services and infrastructure <input type="checkbox"/> (8) Cleanliness <input type="checkbox"/> (9) None <input type="checkbox"/> (10) Other, which one? _____	
53. What is your labor expectation in the medium term? (SINGLE ANSWER) <input type="checkbox"/> 1 Get a formal and stable job <input type="checkbox"/> 2 Change workplace with the same activity <input type="checkbox"/> 3 Change workplace and activity <input type="checkbox"/> 4 Continue with the same activity and place <input type="checkbox"/> 5 Change city <input type="checkbox"/> 6 Other, which one? _____	54. If you are offered a formal and stable job, you would leave this job as long as: (SINGLE ANSWER) <input type="checkbox"/> 1 The salary is equal to the average of your current income <input type="checkbox"/> 2 The salary is higher than the average of your current income <input type="checkbox"/> 3 The salary is lower but compensating with social security <input type="checkbox"/> 4 The salary is equivalent to 1 SMIG with better working conditions and social security <input type="checkbox"/> 5 Would not accept it <input type="checkbox"/> 6 Other, which one? _____		
55. What alternative solution would you suggest to the possible impact of your business due to the recovery of public space in the Santa Elena gallery? (SINGLE ANSWER)			
<input type="checkbox"/> 1 Be relocated <input type="checkbox"/> 2 Get a new job	<input type="checkbox"/> 3 Use legal actions <input type="checkbox"/> 4 Receive a subsidy	<input type="checkbox"/> 5 Other, which one? _____	
INCOME AND EXPENSES			
56. Given the current economic conditions of your home, how much do you consider a monthly income in your home would be:			
<input type="checkbox"/> 1. Insufficient (It only covers basic needs of home) <input type="checkbox"/> 2. Good (It covers basic needs of home and some spare) <input type="checkbox"/> 3. Very good (It allows you to live comfortably and save)	\$ _____ \$ _____ \$ _____	56.1 Income frequency <input type="checkbox"/> 1 Daily <input type="checkbox"/> 2 Weekly <input type="checkbox"/> 3 Biweekly <input type="checkbox"/> 4 Monthly	
57. Would you say that in your home are better? Are you satisfied with your living standards? That is, with all or worse economically than they were a year ago? <input type="checkbox"/> 1 Better <input type="checkbox"/> 2 Equal <input type="checkbox"/> 3 Worse <input type="checkbox"/> 4 DK	58. Are you satisfied with your living standards? That is, with all the things you can buy and do? (GoUp World PoI) <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No <input type="checkbox"/> 3 DK		
60. Currently, do you have a savings account or some kind of financial service? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No <input type="checkbox"/> 3 DK	61. In the last year have you made some kind of loans and/ or are paying one? <input type="checkbox"/> 1 Yes <input type="checkbox"/> 0 No (Go to p46)	62. Who and / or whom? (Multiple answer) <input type="checkbox"/> 1 A family member <input type="checkbox"/> 2 A friend <input type="checkbox"/> 3 Pay day loan <input type="checkbox"/> 4 A bank <input type="checkbox"/> 5 Micro financial institution <input type="checkbox"/> 6 Other _____	
63. What were the purposes of the loan (s) made in the last year? (Multiple answers) <input type="checkbox"/> 1 Pay debt <input type="checkbox"/> 2 Celebration <input type="checkbox"/> 3 Illness <input type="checkbox"/> 4 Invest in a business <input type="checkbox"/> 5 Other, which one? _____			
64. Your household expenses are approximately (including food, services, housing, education, health, etc). Value _____ <input type="checkbox"/> 1 Daily <input type="checkbox"/> 2 Weekly <input type="checkbox"/> 3 Biweekly <input type="checkbox"/> 4 Monthly	65. On average, how much is your monthly income? Value _____ <input type="checkbox"/> 1 Daily <input type="checkbox"/> 2 Weekly <input type="checkbox"/> 3 Biweekly <input type="checkbox"/> 4 Monthly		66. Do your income comes only from being a street vendor? <input type="checkbox"/> 1 Yes → 66.1 Where does it come from? <input type="checkbox"/> 0 No
REGISTRY			
67. Have you been surveyed in the past? <input type="checkbox"/> 1 Yes → 67.1 When? _____ <input type="checkbox"/> 0 No 67.2 Entry name _____		68. Do you have permission/ authorization to work in the street? <input type="checkbox"/> 1 Yes → 68.1 Who gave it to you? _____ <input type="checkbox"/> 0 No	
OBSERVATION			
1. Ubication of the Street Vendor 1.1 Block <input type="checkbox"/> 1 B1 <input type="checkbox"/> 2 B2 <input type="checkbox"/> 3 B3 <input type="checkbox"/> 4 B4 <input type="checkbox"/> 5 B5 <input type="checkbox"/> 6 B6 <input type="checkbox"/> 7 _____ outside of the hallway (Go to question p4.1) 1.2 Mark with an X if the seller is located on _____ <input type="checkbox"/> 1 Street 23 <input type="checkbox"/> 0 Camera N° _____ 1.3 Address _____ (Indicate the street and camera)		2.1 Furniture <input type="checkbox"/> 1 Box <input type="checkbox"/> 2 Cart/ tricycle <input type="checkbox"/> 3 Table <input type="checkbox"/> 4 Other _____	2.2 furniture (Ceiling) <input type="checkbox"/> 1 Cloth <input type="checkbox"/> 2 Umbrella <input type="checkbox"/> 3 Tent <input type="checkbox"/> 4 Other _____
4. Type of sale <input type="checkbox"/> 1 Juices <input type="checkbox"/> 2 Meats <input type="checkbox"/> 3 Fruits <input type="checkbox"/> 4 Vegetables <input type="checkbox"/> 5 Mixed (Fruits and vegetable) <input type="checkbox"/> 6 Clothes <input type="checkbox"/> 7 Medicinal herbs <input type="checkbox"/> 8 Poultry (Chicken/eggs)		<input type="checkbox"/> 9 Confectionery/cigarettes <input type="checkbox"/> 10 Restaurant/bakery <input type="checkbox"/> 11 Dairy products (milk, yogurt, cheese) <input type="checkbox"/> 12 Leguminous vegetables (bean, lentil, pea) <input type="checkbox"/> 13 Junk store <input type="checkbox"/> 14 Convenience store/g. <input type="checkbox"/> 15 Supermarket <input type="checkbox"/> 16 Tuber (potato, yucca) <input type="checkbox"/> 17 Fish shop <input type="checkbox"/> 18 Other, which one? _____	
OBSERVATIONS _____			

A Proposed Credit Risk Assessment for People at the Bottom of the Social Pyramid in Cali, Colombia

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Lina Martínez²

Abstract:

The informal economy accounts for half of the economic activity in Colombia. Street vending is a major part of the informal sector. In the context of a rapid urbanization due to internal conflicts, low skilled workers find a last resort for income generation as street vendors. Even though studies

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have revealed that street vendors can have high profits, they usually remain poor. A primary reason is their continuous indebtedness outside the regulated financial market. This paper proposes a comprehensive questionnaire survey on the socioeconomic profile of street vendors. This tool can be used to assess the individual credit risk and incentivize the financial inclusion of the poor. It can also be used for evaluation processes by the government or impact investors.

Keywords: Colombia, Credit Risk, Impact Investing, Informal Economy, Microfinance

I. Introduction

The informal economy in Colombia, like in many other countries in South America, accounts for about 50% of the economic activity (ILO, 2014). Within the informal sector, street vending constitutes an important share. As an economic sector, it is dynamic and provides goods and services to a large population. There is not enough accurate data to establish the number of street vendors in Colombia or their living conditions, but the information available shows that street vendors usually belong to the poor population and that low-skilled jobs are their last resort of income generation (Donovan, 2008; Martínez et al., 2017).

Due to the many intersections with poverty reduction, the low-skilled labor market and urban planning, street vending constitutes a relevant topic on the national and local policy agenda and is therefore an important area of research. Motivated by the significant role that street vending plays in the Global South, the authors have

undertaken several studies to understand the living conditions and the socioeconomic dimension of this occupation in Cali, Colombia (Martínez & Short, 2016; Martínez et al., 2017; Martínez & Estrada, 2017). It was found that street vendors report a higher income than the average citizen, but they are unable to capitalize on their earnings and escape poverty. The reason is a vicious circle of indebtedness and a high dependency on loan sharks (Martinez & Rivera-Acevedo, forthcoming). Nevertheless, street vendors show the financial capacity to pay back their debts. The assumption is that they would profit from access to credits from a bank or microfinance institution with lower interest rates, or other legal financial instruments.

Until now, the policies that different local governments in Colombia have implemented to cope with street vending, such as relocating the vendors, have not worked. Intervention programs that consider the needs of street vendors are rare and vary from city to city (Martínez & Short, 2016). Social programs targeting informal workers, and

street vendors in particular, should also focus on strategies for financial inclusion. This aspect has not yet been taken into account by the government. The goal of this paper is to contribute with a tool that helps craft targeted interventions aimed at increasing the financial inclusion of informal workers.

This study presents a survey with 62 questions on demographic aspects, employment and health care, household characteristics, income and expenses, access to the banking system and credit history. All the questions have been used and tested before by either the government, regulated financial institutions or the authors in previous studies, but are arranged in a new constellation for the purpose of this study. The results of the survey can be used to create a profile of the poor that discloses their financial status and reveals under which conditions they are creditworthy. This instrument of individual credit risk assessment can reduce information asymmetries and help include the poor population into the formal financial

market.

The paper is divided into four sections. The first section gives an overview of the urbanization process in Colombia, the role of the informal economy and the limited access of poor people to different legal financial institutions (e.g. bank, MFI). It also gives an overview of different mechanisms of financial inclusion in Colombia. The second section presents the suggested questionnaire survey to profile the creditworthiness of poor population groups. Afterwards, policy recommendations and alternative financial instruments are discussed in the third section, and conclusions are drawn in the fourth section.

II. The informal economy and financial access in Colombia

Latin America experienced a rapid urbanization between 1925 and 1975, rising from 25% to 61.2% of the population living in cities (Cerrutti & Bertonecello, 2003). Urbanization has contributed to reduce poverty and child mortality rates, and

increase human development indicators such as educational attainment (Christiaensen & Todo, 2014). Colombia, as one of the major countries in the region (48 million inhabitants), experienced the same transformation. Nowadays, about 75% of the population in Colombia lives in cities (DANE, 2015a). There are three populous cities in the country: Bogotá (7 million), Medellín (2.5 million) and Cali (2.4 million).

Cali is an economic hub in the Pacific region. It is located in the department of Valle del Cauca, which contributes to about 4.1 percent of total GDP in the country (Banco de la República, 2013). Most of its economic activity has derived from sugar cane production and other agricultural activities.

One of the major drives of population growth in Cali is rooted in the armed conflict. In 1990, the city had only about 1.7 million inhabitants, and the large population growth experienced in the last decades is partially due to the resettlement of displaced people (Poveda, 2011). These migration flows

have aggravated inequality, increased poverty and restrained economic opportunities for poor people. It is estimated that about 25% of the city population lives in poverty (DANE, 2013).

The Colombian government stratifies neighborhoods and households according to access to public services. This stratification is a mechanism to classify households based on their living and socioeconomic conditions. The strata scale goes from one to six: one and two are classified as poor; three and four represent the middle class; five and six are classified as rich (DNP, 1997).

For most poor people (strata 1 and 2), an economic activity in the informal sector is the last resort to earn a living. In Colombia, the informal economy covers a wide range of activities, from garbage collectors to street vendors and owners of small companies (ILO-FORLAC, 2014). Given the heterogeneity of this sector and the lack of reliable data, it is difficult to assess the magnitude of the

informal economy. However, official statistics report that about half of the population in Colombia earns a living with an informal occupation (DANE, 2015b). People who work in the informal sector are characterized by the lack of a sufficient skill set to find employment in the formal sector, unstable working conditions and vulnerability to economic slowdowns due to an insufficient social protection system (Gaspirini & Tornarolli, 2007).

Another important characteristic of the informal sector is the exclusion from formal economic structures like banking (Chen, 2005, 2012). Informal workers do not have access to credit by regulated financial institutions given their lack of collateral and/or employment stability. Traditionally, banks grant large loans to clients with a low credit risk which allows a low transaction cost per dollar lent and a high probability of repayment. Lending to the poor is not attractive for traditional financial institutions because of the high administrative cost, lack of deposits and low revenues (Serrano-Cinca & Gutierrez-Nieto,

2014). The exclusion from formal financial services pushes the poor towards informal credit markets, such as payday-loans or moneylenders, who charge predatory interest rates (Mallick, 2012). Despite certain limitations, the main resource of formal credit for people at the bottom of the pyramid are microfinance institutions (from now on MFIs) (Banerjee et al., 2015; Weiss & Montgomery, 2005; Quinones & Remenyi, 2014).

The literature offers a mixed picture regarding MFIs. On the one hand, some researchers claim that microcredits do not only increase income and consumption, but also have a positive impact on the quality of life of the borrowers (Swain, 2012). On the other hand, it is argued that high interest rates and unethical collection methods may compromise this positive effect of credit accessibility to the poor (Kar & Swain, 2014). Contrary to traditional businesses, the strong social principles of some MFIs drive them to find “difficult” customers instead of focusing on their most profitable customers (Serrano-Cinca et al.,

2015). It is important to point out that loans to the poor have repayment rates of 97% (Ashta, 2009). However, in environments with large information asymmetry, borrowers tend to take multiple loans from different MFIs (also known as double-dipping) and combine them with loans from moneylenders which leads to inefficiencies and ultimately default (Guha & Chowdhury, 2013; Mallick, 2012).

Microcredits have a high transaction cost which translates into high interest rates for the poor. The interest rates demanded by MFIs are the result of: losses due to loan impairment, profits (or re-investments for NGOs and non-for-profit MFIs), cost of capital and cost of screening, monitoring and enforcing small loans (Armendáriz & Morduch, 2010; Kar & Swain, 2014; Roberts, 2013). The administrative cost of microloans can go up to 40 percent of the loan size (Braverman & Guasch, 1989). This creates a bias towards short-term production cycle investments, such as petty retail, where borrowers can follow tight repayment schedules soon after the loan is granted (Dalla

Pellegrina, 2011). Furthermore, different borrowers face different transaction costs, but the lack of information blocks the opportunity to offer loans which are tailored to the needs of individual borrowers (Guha & Chowdhury, 2013). In Colombia, the maximum interest rates demanded by MFIs are regulated by the government. At the time of this research, the cap for microcredits is 4.58% per month (Superintendencia Financiera de Colombia, 2017).

Moneylenders have the same kind of transaction costs as MFIs (screening, monitoring and enforcing small loans), but demand higher interest rates due to the illegal nature of moneylending (about 20% per month). But they are more convenient than MFIs in terms of accessibility and cash-flow. For example, a worker enforcing a loan for an illegal moneylender requires a higher wage than an employee in an MFI because wages include the opportunity cost of potentially being incarcerated.

Apart from MFIs, some cities Colombia are exploring different mechanisms sponsored and/or regulated by the government that provide credit access for the poor. One mechanism is through utility companies (operated by the government or private investors). Two examples stand out. The first one is called “*Brilla*” and covers several regions in the country. This program is operated by a private gas company. After revising the clients’ payment history, the company offers clients with good credit records the opportunity to use a line of credit to buy durable assets such as appliances. Clients pay the quote of the durable asset plus their monthly gas bill. More recently, this line of credit was opened for educational programs using a multilateral bank loan (Trochez, 2014; IADB, 2017). Following this business strategy, the public services company of Medellin (EPM) offers credit cards, microfinances and also open credit lines for home improvements and investments such as household expansions and renovations (EPM, 2017). The second strategy, also implemented in

Medellin, is “*Banco Oportunidades*”. The program has been implemented since 2013 and is possibly the most comprehensive intervention that provides credit to the poor in the country. It has credit lines for microfinances, educational loans and cooperatives, and has a targeted program for street vendors. The interest rate is usually below market value (0.91% per month) and individuals who have been reported as risky-borrowers in credit score databases by formal financial institutions can access small loans equivalent to about a minimum monthly salary (Alcaldía de Medellín, 2017).

Other emerging methods of financial inclusion of the poor are peer-to-peer lending and impact bonds. Peer-to-peer lending brings together non-institutional borrowers and lenders. Borrowers upload their business plan on a specialized website and lenders decide under which terms they are willing to provide the requested capital (Mild et al., 2015). In this context, individual investors bear the credit risk instead of financial

institutions specialized in risk-management (Serrano-Cinca et al., 2015). As many loans are not secured, only the estimated return of the productive activity can be expected. Currently, the opportunity cost of investment on peer-to-peer platforms is high since the investors' risk is still not fully compensated (Mild et al., 2015).

Impact bonds are an impact investment vehicle. Impact investing refers to investments that deliver measurable social/environmental returns along with financial profits (Bugg-Levine & Emerson, 2011; Nicholls, 2010; Ormiston et al., 2015). Impact bonds are an outcome-based policy-making strategy in which private investors receive a rate of return if pre-agreed social/environmental outcomes are achieved (Liebman, 2011; Rivera-Acevedo, 2015). At the time of this research, 93 impact bonds are being implemented, including one in Colombia (Social Finance UK, 2017). This instrument shows great potential in the area of poverty alleviation through financial inclusion combining seed capital, savings, skills training,

coaching, confidence-building and social support (Instiglio, 2017).

III. Assessing the credit risk of street vendors

Population data in Colombia –as in many other countries in Latin America- is scarce. In general, cities lack reliable and timely information about the living conditions and socioeconomic status of the inhabitants, as it is not continually collected by local administrations. This is usually due to a lack of funding as well as an absence of evaluation culture which restricts an informed policy-decision-making process. The last population census was collected in 2005. Even though the central administration has implemented different population surveys since, these are mostly representative of smaller regions (“*departamentos*”).

Information about banking and access to credit is not available at city level and is not collected systematically by the central government. According to reports by the Colombian financial

union association (“ASOBANCARIA”), about 26 million of Colombians have had access to at least one banking service by 2017. Most of those services are referred to saving accounts and only 54% of those services were used at least once in the past 6 months (El Tiempo, 2017). This information, however, does not disclose the socioeconomic background of the customers and says little about the financial inclusion of the poor.

One effort made by the government to introduce the poor to the regulated banking system was to make mandatory saving accounts for the deposit of money from “*Familias en Acción*” (FA). FA is one of the largest welfare programs in Colombia. It gives bi-monthly cash transfers to mothers in strata 1 and 2 based on their age and number of children. The precondition of a bank account has been implemented since 2010 and currently, over 2.5 million families are beneficiaries of this program (Prosperidad Social, 2017).

Access to formal financial institutions is expensive.

In Colombia, it is necessary to open a bank account when employed in the formal sector. Salary bank accounts require at least a handling fee. The cost of this handling fee is only marginal if receiving a salary deposit once or twice a month. In the informal sector, pay-day jobs such as domestic work, construction or street vending are common and do not have access to salary bank accounts as they cannot guarantee a reliable income. The option of a saving account is given, but it involves a handling fee plus a fee and waiting time for every withdrawal and deposit. In that regard, the day-to-day structure of street vendors increases the opportunity cost of banking as it is a short-term commercial activity that requires a constant cash-flow and instant cash payment since merchandise is usually purchased from wholesalers on a daily basis (Martínez & Rivera-Acevedo, forthcoming).

In a previous analysis, the authors found that the average monthly income of a street vendor is 20% higher than the income of an individual in the same

socioeconomic strata with more education, and also higher than the income of an average middle class individual in the city (Martínez et al., 2017). But despite their higher income, street vendors are unable to capitalize on their earnings through durable goods like a household. 38% of individuals in strata 1 and 2 own a house, whereas only 28% of street vendors report the same asset (ibid). A possible reason explaining the inability of street vendors to capitalize on their earnings and move out of poverty is their high indebtedness rate with payday-loans (Martínez, Rivera-Acevedo, forthcoming). Their major source of credit are illegal moneylenders. This is due to their lack of access to regulated banking services and legal credit because of generally high transaction costs and a high level of information asymmetry.

An information asymmetry is present when one party has more or better information than the other. In terms explained by Akerlof (Akerlof, 1970), lenders face adverse selection and moral hazard problems. Adverse selection is present because

the lender does not know if the project is good or not (or if the street vendor is capable of selling the products). Moral hazard is present because the lender does not know if after receiving the loan, the borrower will successfully realize the project or if after the project succeeds, the borrower will pay back the loan plus the interest. The best way to reduce information asymmetries is using outside rating firms and guarantees (Akerlof, 1970). However, the poor do not have any collateral and rating firms are too expensive. Therefore, a different approach is needed.

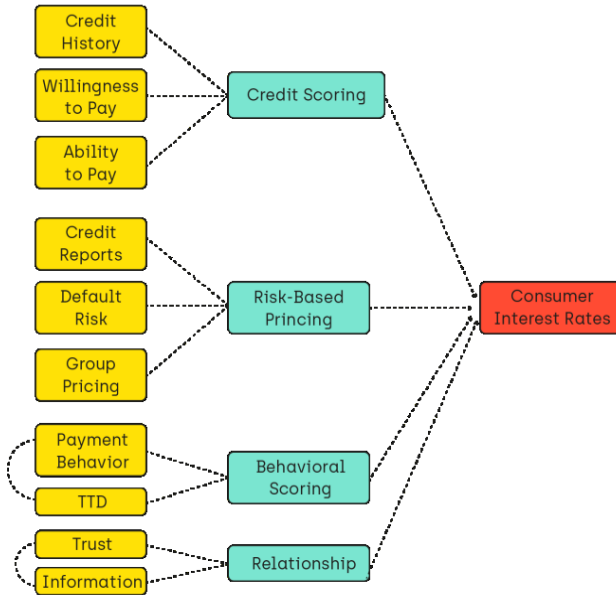
Oh & Johnston (2014) studied the credit card market and proposed a pricing model for managing credit risk. The model consists of four factors that influence the consumer interest rate: Credit scoring, risk-based pricing, behavioral scoring and the relationship between the bank and the borrower. Credit scoring contains information regarding credit history, willingness to pay and ability to pay. Risk-based pricing takes into account credit reports, default risk, and group

pricing. Behavioral scoring comprises payment behavior and “through-the-door” (TTD) analysis, which includes factors such as education level and income status. The relationship factor consists of information regarding trust and the reliability of the information provided (see figure 1). This pricing model for credit cards can be adapted to a microloan context by also taking into account that the factors explaining default on peer-to-peer loans are the purpose of loans, annual income, current housing situation, credit history and indebtedness (Serrano-Cinca et al., 2015).

As a result of previous studies by the authors, one of the major hypothesis of this present study is that risk borrowers with a long history of unregulated credit sources (such as payday-loans) pay back their debts and that therefore their repayment capacity is high. However, given the unregulated nature, transactions in the moneylending business are not officially recorded and cannot be taken into account for formal lending purposes, even though this additional information can help build a more

accurate profile of a risk borrower.

Figure 1: Pricing decision model



*TTD: Through-the-Door

Source: Adapted from (Oh & Johnston, 2014)

In order to determine the profile of a risk borrower, a set of 62 questions was created concerning the economic capabilities of the poor (see annex 1). These questions are a tool to reduce information asymmetries between financial organizations and

lenders who do not comply with lending standards set by regulated financial institutions. Some of the questions are widely used by national and local governments to target social welfare beneficiaries and identify spending priorities to support the poor. Other questions have been used by regulated financial institutions or the research center POLIS of the University ICESI in Cali. As in other studies by the authors, the questionnaire survey is designed to be taken by pollsters.

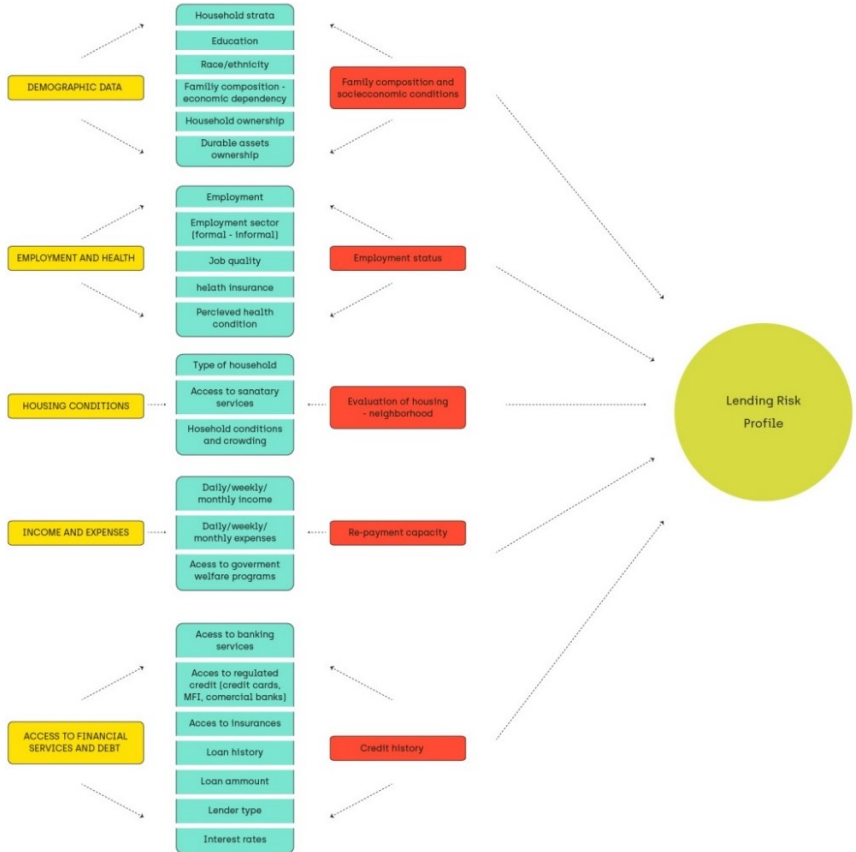
The proposed borrower risk profile is divided into five components: i) demographic information; ii) employment and health; iii) household conditions; iv) income and expenses; v) access to banking services and indebtedness (see figure 2).

The section of employment and health accounts for three aspects. First, questions taken from national surveys implemented by the central government collect information about employment and sector (formal or informal). A second set of questions explores the quality of employment, e.g.

hours worked, benefits besides salary, employment satisfaction and employment stability. All the questions included in this component have been tested in Cali in extensive population surveys. Thirdly, this section accounts for the perceived health condition, which is a key proxy of productivity.

The component household conditions are mostly drawn from national surveys that assess basic needs in households such as sanitation conditions, access to potable water and building structure. These surveys have been widely implemented in Latin America and at the national level. The statistical agency of the country (DANE) has designed and tested composite indicators to determine a household's unmet basic needs (Feres & Mancero, 2001). This study follows the methodological guidelines implemented by the government to establish the extent of unmet needs amongst risk borrowers.

Figure 2. Credit Risk Assessment for People at the Bottom of the Pyramid (see annex)



Source: Authors

The questions in the income and expenses component are a simplified version of the ones used in official surveys by the government, given

the low educational attainment of our target population. This section inquires about access to welfare programs and retirement programs contributions. The questions have been tested in previous studies with poor populations such as garbage collectors (Estrada, et al., 2017) and street vendors (Martínez et al., 2017).

The section about access to banking services and indebtedness inquires about credit history, type of loaner (moneylender, MFI, bank) and interest rates in current and past loans. All the questions in this section have been tested with street vendors in Cali (Martínez & Rivera-Acevedo, forthcoming).

Information collected with this survey, serve the purpose of creating a lending risk profile of the poor and reduce the information asymmetries that lenders have to sort out for lending to informal workers. The profile risk that is created with the information collected through this survey is one of the main inputs for implementing programs that promote financial inclusion.

IV. Discussion and policy implications

The informal economy in Colombia is a relevant and interesting research topic. The informality and its consequences in general, as well as the economic activity of street vending in particular, are of high priority for policy-makers.

The internal armed conflict caused the relocation of farmers from rural areas to the cities. The sudden influx of people without the necessary skills to thrive in urban areas segregated them into economic activities in the informal sector. This sector is characterized by unstable working conditions, vulnerability to economic cycles and a lack of access to formal financial institutions. Street vending represents an important part of the informal sector. It is a cash-based day-to-day activity that requires a constant money flow. Without access to formal financial institutions, street vendors turn to illegal moneylenders for the necessary cash to run their business.

Street vendors in Cali have the financial capacity

to pay back their debts, but are trapped by moneylenders and payday-loans. They have a higher income than the average working age citizen, especially other individuals classified as poor by national standards who work in the formal sector and have higher levels of education. Nevertheless, they are not able to capitalize on their earnings and remain cataloged as poor (strata 1 and 2) because the interest rates demanded by moneylenders absorb their profits (interests rates can reach up to 20% interest per month). An alternative to moneylenders are MFIs offering credits at comparatively lower interest rates but the access is limited.

The current policies implemented by the government of Cali to cope with informality and street vending in particular have not shown the desired outcomes. Therefore, the proposed tool aims at reducing information asymmetries to incentivize the financial inclusion of the poor. The borrower risk profile based on the questionnaire survey with five components offers a

comprehensive overview of the needs and repayment capabilities of the poor. However, data collection is expensive. Nevertheless, this task could be carried out by official entities of the city. So far, the different government offices that operate social programs in Cali using public resources do not have a standardized format to characterize the beneficiary population. They often collect irrelevant information. Furthermore, their instruments usually do not draw conclusions about the living conditions of the beneficiaries, and even less about access to credit and indebtedness. The advantages of data collection through government offices are as follows. First, the government can rely on timely standardized information about the living conditions of the poor with access to public social programs. Second, it would provide the opportunity to craft better targeted programs for credit access. Thirdly, it would save the government money because the data collection could be carried out at the same time as the mandatory update of the program participants.

This questionnaire, besides providing the basis to determine the socioeconomic profile of the poor, can also become a useful tool for the government for evaluation purposes, incentivizing the practice of data-based policies.

Individual profiles can increase the flexibility in loan disbursement and repayment schedules as well as reduce the overall transaction cost of microloans. Profiles can be categorized in a rating which can be easily accessible to financial institutions, including MFIs and banks. These ratings can also reduce double-dipping and diminish the transaction costs related to loan due diligence, especially for MFIs. As discussed by Mallick (2012), individual profiling can enhance investment productivity, even more so, if loans are combined with skills training, coaching, confidence-building and social support as in the case of impact bonds.

The proposed risk profile can also be used by impact investors. Granting credit access to people at the bottom of the social pyramid can be a

profitable business. One of the major challenges of impact investing is to provide measurable social/environmental impact. In this context, the questionnaire gives a clear overview of the quality of life of the borrowers which can be used as a baseline to measure the impact of microcredits on users. Furthermore, a private company could use the questionnaire and develop a rating to sell it to the government, peer- to-peer platforms, banks, and MFIs, similar to traditional credit score databases. In addition, a utility company in Cali could develop a program similar to “*Brilla*” in which beneficiaries have access to credit as well as savings.

V. Conclusions

This paper presents a comprehensive questionnaire survey that covers five essential components of living conditions, such as financial status including different aspects of indebtedness. It is designed to be taken by trained pollsters, e.g. employees of the local government offices. The

target group is the population at the bottom of the social pyramid in Colombia, but could be adapted to other countries in the Global South. The results of the questionnaire can be used as an instrument for credit risk assessment that takes into account the financial activity of an individual in the formal and informal sector. This could facilitate the inclusion of the poor in the regulated banking system, where credits can be obtained at a much smaller interest rate and under secure conditions. In general, the survey can be used as an effective tool for the government to develop outcome-based policies. According to the findings of the survey, the government can implement targeted social programs that reduce poverty and increase the quality of life of the citizens. The outcome of these projects can be measured with the same questionnaire. Since Colombia has a rare practice of data collection, this would foster an evaluation focused culture. A further option to apply the survey can be the impact investing market as a complement to traditional banks or MFIs. The most

interesting financial instruments in this sector are impact bonds and peer-to-peer lending, which also comprise aspects like skill training and coaching.

References

- Abhijit Banerjee, B., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The Miracle of Microfinance? Evidence from a Randomized Evaluation. *American Economic Journal: Applied Economics*, 7(1), 22–53. <https://doi.org/10.1257/app.20130533>
- Akerlof, G. A. (1970). The Market for “Lemons”: Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*, 84(3), 488–500. <https://doi.org/10.2307/1879431>
- Alcaldía de Medellín. (2017). Banco de las Oportunidades. Retrieved October 25, 2017, from <https://www.medellin.gov.co/irj/portal/medellin?NavigationTarget=navurl://fb7c2280b719b905fe73341585c5557b>
- Armendáriz, B., & Morduch, J. (2010). *The Economics of Microfinance* (second edi). Cambridge, Mass: The MIT Press.
- Ashta, A. (2009). Microcredit Capital Flows and Interest Rates: An Alternative Explanation. *Journal of Economic Issues*, 43(3), 661–683. <https://doi.org/10.2753/JEI0021-3624430305>
- Banco de la República (2013). Informe de Coyuntura económica regional. Banco de la República, Bogotá, DC.
- Braverman, A., & Guasch, J. L. (1989). *Rural credit in developing countries* (Policy No. WDP-219). New York, N.Y: World Bank.
- Bugg-Levine, A., & Emerson, J. (2011). Impact investing: Transforming how we make money while making a difference. *Innovations*, 6(3), 9–18.
- Cali en Cifras. (2017). Oficina de Planeación Municipal. http://www.cali.gov.co/publicaciones/107143/cali_en_cifras_planeacion/ Accessed October

- 10, 2017.
- Cerrutti, M., & Bertonecello, R. (2003). Urbanization and Internal Migration Patterns in Latin America, 4–7. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.598.7139&rep=rep1&type=pdf>
- Chen, M. A. (2005). Rethinking the Informal Economy: Linkages with the Formal Economy and the Formal Regulatory Environment. Retrieved from <http://www.un.org/esa/desa/>
- Chen, M. A. (2012). The Informal Economy: Definitions, Theories and Policies. Retrieved from www.wiego.org
- Christiaensen, L., & Todo, Y. (2014). Poverty reduction during the rural–urban transformation—the role of the missing middle. *World Development*, 63, 43-58.
- Dalla Pellegrina, L. (2011). Microfinance and Investment: A Comparison with Bank and Informal Lending. *World Development*, 39, 882–897.
<https://doi.org/10.1016/j.worlddev.2011.03.002>
- DANE (2013). Pobreza en Colombia. Comunicado de prensa.
https://www.dane.gov.co/files/investigaciones/condiciones_vida/pobreza/cp_pobreza_20122.pdf. Accessed October 9, 2017.
- DANE (2015a). Estadísticas por tema. Demografía y población.
<http://www.dane.gov.co/index.php/estadisticas-por-tema/demografia-y-poblacion>. Accessed October 9, 2017.
- DANE (2015b). Medición del Empleo Informal y Seguridad Social. Retrieved September 20, 2015, from http://www.dane.gov.co/files/investigaciones/boletines/ech/ech/bol_eje_informalidad_may_jul_15.pdf
- DNP. (1997). *La estratificación socioeconómica*

- Avance y Retos. Documento CONPES 2904.* Bogotá. Retrieved from <https://colaboracion.dnp.gov.co/CDT/CONPES/Económicos/2904.pdf>
- Donovan, M. G. (2008). Informal Cities and the Contestation of Public Space: The Case of Bogotá's Street Vendors, 1988—2003. *Urban Studies*, 45(1), 29–51. <https://doi.org/10.1177/0042098007085100>
- El Tiempo (2017). Cerca de 7 millones de habitantes están sin bancarizar. <http://www.eltiempo.com/economia/finanzas-personales/nivel-de-bancarizacion-en-colombia-2017-107896> Accessed October 10, 2017.
- EPM. (2017). Crédito Somos. Retrieved October 25, 2017, from <https://www.somosgrupoepm.com/descubre/credito>
- Estrada, D., Martínez, L., & Zuluaga, B. (2017). *Detrás de la carreta: ¿Cómo viven los recuperadores ambientales de Cali?*
- Feres, J. C., & Mancero, X. (2001). El método de las necesidades básicas insatisfechas (NBI) y sus aplicaciones en América Latina. Retrieved from http://repositorio.cepal.org/bitstream/handle/11362/4784/S0102117_es.pdf;jsessionid=38D779356F369DE2758716931616DE6E?sequence=1
- Gaspirini, L. and Tornarolli, L., (2007). Labor informality in Latin America and the Caribbean: Patterns and trends from household survey microdata, CEDLAS working Paper n°46, La plata, Centro de Estudios Distributivos Laborales y sociales.
- Guha, B., & Chowdhury, P. R. (2013). Micro-finance competition: Motivated micro-lenders, double-dipping and default. *Journal of Development Economics*, 105, 86–102.

- <https://doi.org/10.1016/j.jdeveco.2013.07.006>
 ILO. (2014). Transition to formality in Latin America and the Caribbean. Lima: ILO, Regional Office for Latin America and the Caribbean. Retrieved from http://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_314469.pdf
- ILO-FORLAC. (2014). Oficina Regional para América Latina y el Caribe. Retrieved from http://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_245615.pdf
- Instiglio (2017). Extreme Poverty Burkina
- Inter-American Development Bank –IADB. (2017). Proyectos - CO-L1089: Promigas: Programa de Financiación No Bancaria Brilla. Retrieved October 25, 2017, from <http://www.iadb.org/es/proyectos/project-information-page,1303.html?id=CO-L1089>
- Kar, A. K., & Swain, R. B. (2014). Interest Rates and Financial Performance of Microfinance Institutions: Recent Global Evidence. *European Journal of Development Research*, 26(1), 87–106. <https://doi.org/10.1057/ejdr.2013.33>
- Liebman, J. B. (2011). Testing Pay-for-Success Bonds. *Public Manager*, 40(3), 66–68.
- Mallick, D. (2012). Microfinance and Moneylender Interest Rate: Evidence from Bangladesh. *World Development*, 40(6), 1181–1189. <https://doi.org/10.1016/j.worlddev.2011.12.011>
- Martínez, L. & Rivera- Acevedo, J. D. (forthcoming). Debt Portfolios of the Poor: The Case of Street Vendors in Cali, Colombia. Under revision.
- Martínez, L. & Estrada, D. (2017). Street vending

- and informal economy: Survey data from Cali, Colombia. *Data in Brief*, 14, 132–137. <https://doi.org/10.1016/j.dib.2017.06.047>
- Martínez, L., Short, J. R., & Estrada, D. (2017). The urban informal economy: Street vendors in Cali, Colombia. *Cities*, 66, 34–43. <https://doi.org/10.1016/j.cities.2017.03.010>
- Martínez, L., & Short, J. R. (2016). The Informal Economy of Cities in The South: The Case of Cali, Colombia. *International Journal of Sustainable Development and Planning*, 12(4), 637–643. <https://doi.org/10.2495/SDP-V12-N4-637-643>
- Mild, A., Waitz, M., & Woeckl, J. (2015). How low can you go? - Overcoming the inability of lenders to set proper interest rates on unsecured peer-to-peer lending markets. *Journal of Business Research*, 68(6), 1291–1305.
- Montgomery, H., & Weiss, J. (2005). Great Expectations: Microfinance and Poverty Reduction in Asia and Latin America. Retrieved from www.adbi.org
- Nicholls, A. (2010). The Institutionalization of Social Investment: The Interplay of Investment Logics and Investor Rationalities. *Journal of Social Entrepreneurship*, 1(1), 70–100. <https://doi.org/10.1080/19420671003701257>
- Oh, J.-H., & Johnston, W. J. (2014). Credit lender-borrower relationship in the credit card market - Implications for credit risk management strategy and relationship marketing. *International Business Review*, 23(6), 1086–1095. <https://doi.org/10.1016/j.ibusrev.2014.06.010>
- Ormiston, J., Charlton, K., Donald, M. S., & Seymour, R. G. (2015). Overcoming the Challenges of Impact Investing: Insights from Leading Investors. *Journal of Social Entrepreneurship*, 6(3), 352–378.

- <https://doi.org/10.1080/19420676.2015.1049285>
- Poveda, A. C. (2011). Economic Development, Inequality and Poverty: An Analysis of Urban Violence in Colombia. *Oxford Development Studies*, 39(4), 453–468.
- Prosperidad Social. (2017). Retrieved December 18, 2017, from <http://www.dps.gov.co/Paginas/Inicio.aspx>
- Quinones, B., & Remenyi, J. (2014). *Microfinance and poverty alleviation: Case studies from Asia and the Pacific*. Routledge.
- Rivera-Acevedo, J. D. (2015). Market-based Solutions for Social Challenges: A Collaborative Policy Making Strategy. <https://doi.org/10.13140/RG.2.1.2960.5203>
- Roberts, P. W. (2013). The Profit Orientation of Microfinance Institutions and Effective Interest Rates. *World Development*, 41, 120–131. <https://doi.org/10.1016/j.worlddev.2012.05.022>
- Serrano-Cinca, C., Gutierrez-Nieto, B., & Lopez-Palacios, L. (2015). Determinants of Default in P2P Lending. *Plos One*, 10(10), e0139427. <https://doi.org/10.1371/journal.pone.0139427>
- Serrano-Cinca, C. and Gutierrez-Nieto, B. (2014). Microfinance, the long tail and mission drift. *International Business Review*, Vol 23 (1), pp 181-194
- Social Finance UK. (2017). Impact Bond Database.
- Superintendencia Financiera de Colombia. (2017). Certificación del Interés Bancario Corriente para las modalidades de Crédito de Consumo y Ordinario, Microcrédito y Consumo de Bajo Monto.
- Swain, R. B. (2012). *The Microfinance Impact*. Routledge.



Trochez, G. (2014). Promigas aspira a que su programa Brilla acabe el año con 1,2 millones de personas beneficiadas. La República. Retrieved October 25, 2017, from <https://www.larepublica.co/responsabilidad-social/promigas-aspira-a-que-su-programa-brilla-acabe-el-ano-con-12-millones-de-personas-beneficiadas-2143416>

Annex 1. Figure 1. Credit Risk Assessment for People at the Bottom of the Pyramid



Source: Authors

QUESTIONNAIRE LENDING PROFILE		SF																						
CONTINUATION																								
<p>33. Which is the prevailing material of the floors in your house? (UNIQUE ANSWER)</p> <p>1 <input type="checkbox"/> Carpet, marble, polished or lacquered wood</p> <p>2 <input type="checkbox"/> Tiles, vinyl, tablet, brick</p> <p>3 <input type="checkbox"/> Cement, gravel</p> <p>4 <input type="checkbox"/> Coarse wood, board, plank, other vegetable source</p> <p>5 <input type="checkbox"/> Soil, sand</p>	<p>37. Which kind of toilet does the household have?</p> <p>1 <input type="checkbox"/> Toilet connected to sewer</p> <p>2 <input type="checkbox"/> Toilet connected to septic tank</p> <p>3 <input type="checkbox"/> Toilet without connection</p> <p>4 <input type="checkbox"/> Latrine</p> <p>5 <input type="checkbox"/> It does not have</p>																							
<p>34. Which is the prevailing material of the walls in your house? (UNIQUE ANSWER)</p> <p>1 <input type="checkbox"/> Block, brick, stone, polished wood</p> <p>2 <input type="checkbox"/> Tapia pisada, adobe, bahareque</p> <p>3 <input type="checkbox"/> Coarse wood, board</p> <p>4 <input type="checkbox"/> Prefabricated material</p> <p>5 <input type="checkbox"/> Guadua, cana, mat, other vegetable sources</p> <p>6 <input type="checkbox"/> Zinc, cloth, cardboard, cans, scraps, plastics</p> <p>7 <input type="checkbox"/> No walls</p>	<p>38. Your house have access to:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">Yes(1)</th> <th style="width: 10%; text-align: center;">No(0)</th> </tr> </thead> <tbody> <tr><td>1 Aqueeduct</td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>2 Electricity</td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>3 Gas</td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>4 Sewerage</td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>5 Garbage collection</td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>6 Internet</td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td></tr> </tbody> </table>				Yes(1)	No(0)	1 Aqueeduct	<input type="checkbox"/>	<input type="checkbox"/>	2 Electricity	<input type="checkbox"/>	<input type="checkbox"/>	3 Gas	<input type="checkbox"/>	<input type="checkbox"/>	4 Sewerage	<input type="checkbox"/>	<input type="checkbox"/>	5 Garbage collection	<input type="checkbox"/>	<input type="checkbox"/>	6 Internet	<input type="checkbox"/>	<input type="checkbox"/>
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5 Garbage collection	<input type="checkbox"/>	<input type="checkbox"/>																						
6 Internet	<input type="checkbox"/>	<input type="checkbox"/>																						
<p>35. How many rooms does your household have? (do not include bathrooms and kitchen)</p> <p style="text-align: right;">_____ (Number)</p>	<p>39. The water to prepare food, are obtained mainly from: (UNIQUE ANSWER)</p> <p>1 <input type="checkbox"/> Public aqueduct</p> <p>2 <input type="checkbox"/> Communal or veredral aqueduct</p> <p>3 <input type="checkbox"/> Well with pump</p> <p>4 <input type="checkbox"/> Well without pump (jagüey)</p> <p>5 <input type="checkbox"/> Water rain</p> <p>6 <input type="checkbox"/> River, stream or mountain spring</p> <p>7 <input type="checkbox"/> Public stock</p> <p>8 <input type="checkbox"/> Water tank-car</p> <p>9 <input type="checkbox"/> Water caner</p> <p>10 <input type="checkbox"/> Bottled or bagged water</p>																							
<p>36. How many rooms are used to sleep?</p> <p style="text-align: right;">_____ (Number)</p>	INCOME AND EXPENSES																							
<p>40. On average, what is your income?</p> <p style="text-align: right;">_____</p> <p>1 <input type="checkbox"/> Daily</p> <p>2 <input type="checkbox"/> Monthly</p> <p>3 <input type="checkbox"/> Weekly</p>	<p>43. Which measurements have you taken to secure a good life when you get older? (MULTIPLE ANSWER)</p> <p>1 <input type="checkbox"/> Expect support from his/her children</p> <p>2 <input type="checkbox"/> Save money for the future</p> <p>3 <input type="checkbox"/> Try to organize a business / asset that guarantees an income</p> <p>4 <input type="checkbox"/> Listed in a pension fund</p> <p>5 <input type="checkbox"/> He/she hopes that someday he/she'll get the money to save for old age.</p> <p>6 <input type="checkbox"/> Nothing</p> <p>7 <input type="checkbox"/> Other, which? _____</p>																							
<p>41. Including housing, food, services, and others, the expenses at your home are approximately:</p> <p>1 <input type="checkbox"/> Daily</p> <p>2 <input type="checkbox"/> Monthly</p> <p>3 <input type="checkbox"/> Weekly</p> <p style="text-align: right;">_____</p>	<p>42. Over the last twelve months, have any member of your household received subsidies from the government either in cash or in kind?</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 10%; text-align: center;">Yes(1)</th> <th style="width: 10%; text-align: center;">No(0)</th> <th style="width: 50%; text-align: center;">*Nrm. Of member</th> </tr> </thead> <tbody> <tr><td>1 Cash transfer</td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;">_____</td></tr> <tr><td>2 Elderly subsidy</td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;">_____</td></tr> <tr><td>3 Other, which?</td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;"><input type="checkbox"/></td><td style="text-align: center;">_____</td></tr> </tbody> </table>				Yes(1)	No(0)	*Nrm. Of member	1 Cash transfer	<input type="checkbox"/>	<input type="checkbox"/>	_____	2 Elderly subsidy	<input type="checkbox"/>	<input type="checkbox"/>	_____	3 Other, which?	<input type="checkbox"/>	<input type="checkbox"/>	_____					
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3 Other, which?	<input type="checkbox"/>	<input type="checkbox"/>	_____																					
ACCESS TO FINANCIAL SERVICES AND DEBT																								
<p>44. Do you have an active savings account with a bank or financial institution?</p> <p>1 <input type="checkbox"/> Yes 0 <input type="checkbox"/> No</p>	<p>48. How was it paid? (MULTIPLE ANSWER)</p> <p>1 <input type="checkbox"/> Cash</p> <p>2 <input type="checkbox"/> Credit with family member</p> <p>3 <input type="checkbox"/> Credit pay-day-loan</p> <p>4 <input type="checkbox"/> Credit with financial institution</p> <p>5 <input type="checkbox"/> DK</p> <p>6 <input type="checkbox"/> Other, which? _____</p>																							
<p>45. Do you have a credit card?</p> <p>1 <input type="checkbox"/> Yes → 45.1 How many? _____</p> <p>0 <input type="checkbox"/> No</p>	<p>49. Do you pay for any kind of insurance? (read options) MULTIPLE CHOICE</p> <p>1 <input type="checkbox"/> Life</p> <p>2 <input type="checkbox"/> Home</p> <p>3 <input type="checkbox"/> Accident</p> <p>4 <input type="checkbox"/> Funeral</p> <p>5 <input type="checkbox"/> Employment</p> <p>6 <input type="checkbox"/> None</p> <p>7 <input type="checkbox"/> Other, which? _____</p>																							
<p>46. Do you have alimcimes paying your debts?</p> <p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p> <p>3 <input type="checkbox"/> No debts</p>	<p>50. Do you have anyone to lend you money?</p> <p>1 <input type="checkbox"/> Yes</p> <p>0 <input type="checkbox"/> No</p>																							
<p>47. Which is the main asser of your home?</p> <p>1 <input type="checkbox"/> Car</p> <p>2 <input type="checkbox"/> Motorcycle</p> <p>3 <input type="checkbox"/> Owning a household</p> <p>4 <input type="checkbox"/> Computer</p> <p>5 <input type="checkbox"/> Home appliances (fridge / washing machine / etc)</p> <p>6 <input type="checkbox"/> None</p> <p>7 <input type="checkbox"/> Other, which? _____</p>	3																							

  QUESTIONNAIRE LENDING PROFILE		SF
CONTINUATION		
51. In the last year, have you take any kind of loan?		
1 <input type="checkbox"/> Yes → 51.1 How many? ___ 0 <input type="checkbox"/> No		
52. Who lent you the money? and which was the interest rate?(MULTIPLEANSWER)		
Interest rate		
Interest rate		
1 <input type="checkbox"/> A family member _____	4 <input type="checkbox"/> A moneylender/Pay-day loan _____	
2 <input type="checkbox"/> A friend _____	5 <input type="checkbox"/> A microfinance institution _____	
3 <input type="checkbox"/> A bank _____	6 <input type="checkbox"/> Other, which? _____	
53. Have you had several loans at the same time?		
1 <input type="checkbox"/> Yes → 53.1 How many? ___ 0 <input type="checkbox"/> No		
54. Are you currently paying for a loan?		
1 <input type="checkbox"/> Yes → 54.1 How many? ___ 0 <input type="checkbox"/> No		
55. Who lent you the money? and which was the interest rate?(MULTIPLEANSWER)		
Interest rate		
Interest rate		
1 <input type="checkbox"/> A family member _____	4 <input type="checkbox"/> A moneylender/Pay-day loan _____	
2 <input type="checkbox"/> A friend _____	5 <input type="checkbox"/> A microfinance institution _____	
3 <input type="checkbox"/> A bank _____	6 <input type="checkbox"/> Other, which? _____	
56. How much money do you have to spare for the payment of the loans?		
\$ _____		
1 <input type="checkbox"/> Daily	2 <input type="checkbox"/> Weekly	3 <input type="checkbox"/> Biweekly
		4 <input type="checkbox"/> Monthly
57. On average, how long does it take you to repay a loan?		

1 <input type="checkbox"/> Days	2 <input type="checkbox"/> Months	3 <input type="checkbox"/> Years
58. Which was the main reason for taking the loan(s)? (MULTIPLEANSWER)		
1 <input type="checkbox"/> Business	2 <input type="checkbox"/> Debts	3 <input type="checkbox"/> Family
4 <input type="checkbox"/> Free investment	5 <input type="checkbox"/> Other _____	
59. Have you ever applied for a loan at a bank or microfinance institution?		
1 <input type="checkbox"/> Yes 0 <input type="checkbox"/> No		
60. When you applied for the loan, did you get it?		
1 <input type="checkbox"/> Yes → 60.1.1 Loan amount _____		
60.1.2. if you are still paying, how long does it take? _____		
60.1.3. if you already paid, how long did it take to pay? _____		

2 <input type="checkbox"/> NO → 60.2.1 Which was the reason? _____		
61. Which interest rate do you think is right for access to credit and expand yourbusiness?		

1 <input type="checkbox"/> Daily	2 <input type="checkbox"/> Weekly	3 <input type="checkbox"/> Monthly
		4 <input type="checkbox"/> Yearly
62. Have you been reported in a credit score database (Datacredito)?		
1 <input type="checkbox"/> Yes 0 <input type="checkbox"/> No		
4		
PLEASE END THE SURVEY		