Contemporary Issues in Sustainable Finance

Financial Products and Financial Institutions

Edited by
Mario La Torre · Helen Chiappini

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List of Figures

List of Tables

List of Boxes

Sustainable Finance: Emerging Challenges and Opportunities

Mario La Torre and Helen Chiappini

Sustainable finance, and all the related concepts under this umbrella term—such as ethical, socially responsible, and impact finance (Sandberg et al. 2009; Yen et al. 2019)—is emerging as a mainstream topic, gathering the interest of worldwide policymakers, practitioners, and academics.

Climate change, but also the unmet social needs, encourage a fast transition towards a sustainable economy and, in turn, the identification of a clear regulatory framework, able to support the financing of the most virtuous sectors. Several jurisdictions are moving on in this direction (OECD 2020), however, investors remain still caution due to the

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1

risk of green-washing that the sustainable market currently faces (Parguel et al. 2011; Revelli 2017; Yu et al. 2020).

Undefined (or not aligned) regulations and green-washing are only some of the most relevant challenges of sustainable finance. This book aims to shed lights on current issues in sustainable finance through a critical presentation and discussion of theoretical issues, case studies of innovative financial products and sustainable institutions; it also empirically investigates some challenges related to both financial and social performance.

In more detail: the book explores challenges in the following main streams: (i) sustainable products, (ii) financial institutions and sustainable practices, (iii) investee organizations, and impact measurement.

The conclusions offer an overview on the most recent challenges faced by sustainable market and, more in general, by the global economy and financial system, over the COVID-19 pandemic crisis.

1.1   Sustainable Products

Chapter 2 *Who likes SIBs? A bibliometric analysis of academic literature* by Luigi Corvo, Ludovica Pastore, and Matteo Ghibelli, investigates academic contributions on social impact bonds (SIBs) through a bibliometric analysis. The study reveals that existing literature has a positive and optimistic view of SIBs and that both governments and investee organizations consider outcome-based contracts as valuable schemes.

Chapter 3 *Fighting poverty and inequalities through social impact bonds: learning from case studies for supporting the COVID-19 response* by Annarita Trotta, Rosella Carè, Rossana Caridà, and Maria Cristina Migliazza, discusses critical case studies of SIBs aimed at addressing poverty and socio-economic inequalities. The chapter contributes to the ongoing debate on SIBs, providing a framework of practices useful for SIBs development, also in the post COVID-19 pandemic scenario.

Chapter 4 *Green bonds capital returns: the impact of market and macroeconomic variables,* by Alessandra Ortolano and Eliana Angelini studies the determinants of green bonds capital returns. Findings highlight peculiarities, like the negative autocorrelation or the lacking influence of stock market.

1.2   Financial Institutions and Sustainable Practice

Chapter 5 *Crowdfunding as a support tool for the activity of social investors* by Antonio Minguzzi and Michele Modina, discusses the case study of an Italian crowdfunding platform, demonstrating that social crowdfunding promotes a significant interaction between all players involved in the crowdfunding scheme—non-profit organizations, social investors and donors—and improves the philanthropic activity of the banking foundation.

Chapter 6 *Environmental, Social, and Governance Integration in Asset Management Strategy: The Case of Candriam*, by Simona Cosimato, Nicola Cucari, and Giovanni Landi, examines how the asset manager integrates ESG factors into their investment strategies, and how they communicate such strategies.

Chapter 7 *Family Firms As Prominent Investment Organizations Of Social Finance: An Empirical Analysis Of U.S. Family Foundations,* by Carmen Gallucci, Rosalia Santulli, and Riccardo Tipaldi examines U.S. family foundations and supports that they are playing a significant role in the social finance landscape by providing social entrepreneurs with equity and debt capital, as well as grants.

Chapter 8 *Norwegian Pension fund's portfolio: What happens to the companies divested for environmental concerns?*, by Stefano Dell'Atti, Viviana Fanelli, and Federica Miglietta, investigates how international investors reacted to the news of firm exclusion from the portfolio of the Norwegian Government Pension Fund-Global. Results highlight different reactions according to the investors' behaviors.

1.3   Investee Organizations and Impact Measurement

Chapter 9 *Women's empowerment through social entrepreneurship and impact investing in Myanmar*, by Vlada Perekrestova, explores the role of social entrepreneurship and impact investing on women's empowerment in Myanmar. The chapter supports that impact investments in Myanmar play a decisive role in disrupting the current way of financing development, as well as in creating a new generation of female social entrepreneurs.

Chapter 10 *Social impact assessment: measurability and data management*, by Luigi Corvo and Lavinia Pastore, explores the great potential of technological innovation in favor of social and environmental impact objectives. The results give evidence that digital technologies may have a relevant role in making social processes more measurable, reliable and scalable.

Chapter 11 *Social impact assessment: a focus on Italian innovative startups with a social goal*, by Manuela Gallo and Valeria Vannoni, investigates impact assessment of startups that seek to achieve a social aim. The findings confirm the urgency of removing cultural and practical barriers that start-ups are experiencing in the measurement of social impact.

1.4   Concluding Remarks Over a Global Pandemic

Chapter 12 Sustainable finance challenges and COVID-19 pandemic: weathering the storm and preventing a new one, by Helen Chiappini concludes the book with an overview of sustainable financial products implemented during the pandemic crisis and summarizes some reflections on how sustainable finance could represent a useful tool for reconstructing a resilient financial and economic system.

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Who Likes SIBs? A Bibliometric Analysis of Academic Literature (Time Span 1990–2018)

Luigi Corvo, Lavinia Pastore, and Matteo Ghibelli

2.1 Introduction

This chapter aims to study the development in academic literature on SIBs focusing on the concept of this financial instrument. To some extent, our work can be considered as an evolution of Alec Fraser's publication (*Narratives of Promise, Narratives of Caution: A Review of the Literature on Social Impact Bonds*, Fraser et al. 2016) who divided literature on SIBs existing in 2015 into three different narratives regarding SIBs (*PSR, FSR and cautionary narrative*). We aim to explore commonly held attitudes towards SIBs by better understanding the extent to which researchers hold a "*cautionary narrative*", as identified by Fraser et al. (2016). If an

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author has a cautionary view of the instrument, is this cautionary view related to its risk or to its potential?

To properly conduct our analysis, we set up the following research questions:

- RQ1 How has scientific literature regarding SIBs and Impact Finance been evolving? As part of RQ1, we also considered what the main focuses for research have been.
- RQ2 Is there a predominant feeling (optimistic or pessimistic) in academia regarding this issue?

To answer the questions, we started from a classic literature review methodology, that comprised searching databases using selected keywords and then setting up exclusion criteria to select a final sample. In our case, the databases investigated were mainly Web of Science and Google Scholar, and we found more than 500 academic papers from which we shortlisted 97, all of which were written between 2010 and 2018. Having obtained our final sample, we did a sentiment analysis on the papers we selected, then we analysed the sample using Bibliometrix. Bibliometrix is an R-package built to conduct bibliometric analysis following the standard workflow for science mapping. We are unique in our use of Bibliomatrix for our mapping, which means that our work is different from existing literature reviews on SIBs. We hope that this provides an inspiration for other scholars to run bibliometric analysis on their topic of interest in order to further advance literature reviews studies by using new technology. This process is explained in depth in our methodology chapter.

SIBs present a new and innovative way to finance social programmes and can be seen as part of a much broader concept known as Social Finance. When talking about SIBs, impact investing, and social enterprises, there is a lot of diversity (Hochstadter and Scheck 2015). One commonality in the variety of aspects and actors is that all have the same objective of combining revenue generation with social impact.

In the last decade, social finance has emerged as an alternative to the traditional way of thinking about financial resources and their use (OECD 2014; Social Investment Task Force 2010). Historically, social entrepreneurs have relied on grants and contracts from government agencies or foundations as a primary source of financial support, but in

times of fiscal constraint, these sources may become more limited. Therefore, new forms of capital for investment in social innovation are needed (Moore et al. 2012). Social finance has an important role in stimulating social innovation because the investment typically challenges the institutional logics associated with conventional investor rationalities (Nicholls and Murdock 2012; Nicholls 2010). This emerging trend in thinking has had sporadic growth, with some countries developing their research before others.

Each country independently developed a unique solution to meet the most significant social issues of our times. Although a large number of very diverse communities explored this issue in different ways, there is some heterogeneity in thinking, not only in the sectors of operation and instruments used, but also in creating a shared definition of social enterprise itself. The social dimension of each organisation sets value-creation as the ultimate goal, however, the ways in which this is achieved are wide-ranging. It was unclear to us initially what to include in the definition of SIBs as many scholars have a slightly different understanding. This is due to a drive to identify which metrics and sets of variables motivate individual actions that could be used on a wider scale internationally.

SIBs are considered part of Social Impact Investing (henceforth, SII), a term coined in 2008 by JP Morgan and Rockefeller Foundation.[1] SII is an investment culture that endeavours to make long-term social gains by addressing social problems rather than attempting to maximise financial returns (Leventhal 2012). Pension fund managers and other institutional investors are increasingly making investments that are socially responsible and which pursue more active roles in corporate governance (Apostolakis et al. 2018). According to Wood et al. (2013), impact investing can be defined as investing with the explicit purpose of creating measurable social or environmental benefits in addition to financial returns.

The motivation for creating SIBs now is the payment-by-results schemes associated with target-based performance management that were popularised under the Blair government in the UK during the 2000s, which aimed to link contracts to specific outcomes (Warner 2013).

In this section of the chapter, we outline the steps we used to answer our research questions, detailing the methodology and motivation for using Bibliometrix. We also interpret the results obtained after employing our bibliometric analysis. We found five factors that govern what academic research is produced, which are based on: what type of research is most popular for published papers, what areas of the world are partnering in

research into SIBs, how many academic actors are researching into each cluster, how wide the range of metadata associated with existing literature is, what dynamics exist between different clusters, and what sources influence different authors.

One universal finding we identified is that most academic literature considers SIBs as a useful financial tool for governments. This highlights an important consideration about the possible implication and use of our study: if we assume, based on available data, that attitudes towards SIBs are largely positive globally, then there is scope for governments to explore how SIBs may be applied to help solve local issues. Our research could thus be used as an exploratory map for governments and other actors setting out on this study.

One of the main limitations of our study is that there is a lack of quantitative data in the literature of SIBs, and particularly into outcomes reached, impact and revenues generated. That is, while we hope that our research is replicable, we cannot yet say that our findings are supported by other literature research at this time as there is currently little current empirical evidence of the optimistic consideration that is given to SIBs by scholars.

2.2   Methodology

To address our research questions, we chose to conduct a bibliometric analysis since it seemed the most appropriate methodology available to investigate the development of literature and academic discourse about SIBs. As recommended by Zupic and Cater (2015), we followed the standard workflow for bibliometric analysis, that consists of five different stages:

1. Study design;
2. Data collection;
3. Data analysis;
4. Data visualisation;
5. Interpretation.

To conduct our bibliometric analysis on mainly existing academic literature, we decided to use an innovative open-access software called "Bibliometrix" developed by Aria and Cuccurullo (2017) as this tool is

designed to assist scholars to complete a recommended workflow. It is different from other science mapping tools (Aria and Cuccurullo 2017) available.

This choice was made for several reasons, including the following:

– Objectivity;
– Replicability;
– Flexibility.

Objectivity is created by following an automated process. In this case, one that Bibliometrix embeds in its source code. As Aria and Cuccurullo (2017) state, "*in this paper, we propose a unique tool, developed in the R language, which follows a classic logical bibliometric workflow that we reconstruct*".

Replicability arises from objectivity in this case, as whoever uses the same procedures and similar source documents should find the same results.

Flexibility, which is our biggest consideration, allowed us to create a dataset, divide it into different clusters, and analyse the dataset we made, maintaining the clusterisation we did. "*As it is programmed in R, the proposed tool is flexible, can be rapidly upgraded, and can be integrated with other statistical R-packages*". We also used Bibliometrix as it is programmed to take information from academic databases such as Scopus and Web of Science (henceforth, WOS), that match our source documents.

The first step of our method is study design, developing Alec Frasers's model that he sets out in his publication. With his approach, Fraser et al. (2016) identified different narratives based on the perspective of the authors studied. In the PSR Narrative, SIBs are considered a tool for the public actor. "*From this perspective, the opportunity offered by SIBs to merge public and private values is seen as advantageous*" (Fraser et al. 2016, p. 6).

In the FSR Narrative, SIBs are considered a tool by which profits can be gained through social purposes. "*It [is proposed] that blending public and private values will offer private sector actors (particularly financial institutions) an opportunity to affect socially worthwhile change through social entrepreneurship whilst simultaneously pursuing commercial interests*" (Fraser et al. 2016, p. 6).

In the Cautionary Narrative, Fraser classified all papers that discuss SIBs in a "prudent way" as being written in either a public or private perspective. He simultaneously highlighted problems regarding measurement of outcome, risk of *financialization* (Lake 2015) and possible distortion of social mission of social enterprises (Joy and Shields 2013). It is this last narrative that we consider the most interesting, because it gives us a starting point by which to conduct in-depth analysis into the feeling of cautionary authors. In our analysis, we identify if the caution shown by authors is linked to either an optimistic or pessimistic attitude, and if this attitude can be framed in one of the two previous narratives that Fraser identified, that is, either PSR or FSR.

For the second stage of our workflow (**2. Data collection**), we followed the steps described below.

2.2.1   *Step One: Investigating Keywords*

1. We found the keywords identified by Fraser et al. in 2016, namely:

    (a) 'Social impact bond'
    (b) 'Social AND impact AND bond'
    (c) 'Pay* for success bond*'
    (d) 'Pay* for success contract*'
    (e) 'Development impact bond*'
    (f) 'Outcome based contract'
    (g) 'Impact invest*'
    (h) 'Impact-first invest*'
    (i) 'Social innovation financ*'
    (j) 'Health impact bond*'
    (k) 'Social impact invest*'
    (l) 'Social benefit bond'
    (m) 'Social bond'
    (n) "Social finance"
    (o) "Social impact finance".

2. We largely used two different databases: Clarity WoS and Google Scholar, and found 547 references in total. We then searched independently through papers that were not included in these databases, but cited by Fraser, over the timespan 1990–2018;
3. We set the exclusion criteria:

(a) All documents that were not academic papers were deleted from our list (including proceeding papers and book chapters);
(b) All documents that were not written in English were deleted from the list;
(c) All papers that refer to "Social Bond Theory" were deleted;
(d) All papers that did not directly refer to SIBs or Social Finance in the abstract, list of keywords or introduction were excluded.

2.2.2   Step Two: Analysis of the Authors' Sentiment

1. We created four clusters, based on a matrix of the PSR Narrative and FSR Narrative, as follows:

   (a) Financial Optimistic;
   (b) Financial Pessimistic;
   (c) Public Pessimistic and
   (d) Public Optimistic.

We considered "optimistic" the papers in which SIBs are seen as tools that might have positive consequences both in FSR and PSR. For instance, if the adoption of a SIB scheme is considered a potential tool to fund a social enterprise, or if it is seen as a way to address social problems that create savings and create additional value for the public actor, the paper would be classified as being "optimistic". Likewise, we classified papers as "pessimistic" if there was potential for a SIB to negatively affect public and private actors. For instance, when a paper highlights the agency problem that public and private actors might face in a SIB contract or distorts social mission.

2. We set up exclusion criteria:

   (a) All papers that refer to SIBs or social finance only once or twice in the body of the text without allowing a sentiment analysis of the tool were deleted.

During the period February 2019–June 2019, we skim-read all the papers and selected the cluster to which it belonged. We then matched the results and found a set of 97 academic papers that met all conditions required to be necessary for our analysis. We then concluded the second step of the

Table 2.1 Description of the research sample

Description	Results
Documents	97
Sources (journals, books, etc.)	75
Period	2011–2018
Average citations per documents	6.253
Authors	170
Documents per author	0.570588
Authors per document	1.75
Annual growth rate	72.12%

workflow and proceeded to the third and fourth steps: **data analysis and data visualisation**.

Bibliometrix data analysis tools enable an array of documents to be created, and with that, a matrix, based on the attributes selected. For example, if the authors of a document were selected, Bibliometrix would create a matrix "*N x M*" setting "*N = Documents and M = authors*".

Since Bibliometrix is open and customisable, we made a spreadsheet with our sentiment analysis and clusterisation, imported it into Bibliometrix, and used that to analyse the data included in our 97 records.

Our dataset, consisting of the papers we identified, is summarised in the table below (Table 2.1) and a graph of the scientific production over one year is provided (Fig. 2.1).

2.3   FINDINGS

Our research analysis allowed us to identify five main findings:

1. The first refers to what type of research is most popular for published papers (Public-Optimistic, Public-Pessimistic, Finance-Optimistic, or Finance-Pessimistic);
2. The second allows us to explore what areas of the world are partnering into research on SIBs;
3. The third investigates the number of academics that are researching into each cluster, and includes a qualitative analysis of coherency of writing in each cluster;
4. The fourth explores the range of metadata associated with the existing literature, namely, the relationship between the author's