

The Project on Impact Investments' Impact Investment Database

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Working Paper 20-117



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The Project on Impact Investments'

Impact Investment Database

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Abstract

Impact investing has grown significantly over the past 15 years. From a niche investing segment with only \$25 billion AUM in 2013 (WEF 2013), it experienced double-digit growth and developed into a market with an estimated \$502 billion AUM (Mudaliapar and Dithrich 2019). Despite the growth and maturation of impact investing, gathering complete and accurate data on the characteristics of this industry continues to be a challenge. This paper describes the creation of a new dataset on both impact investors and the portfolio companies they fund, comprising 445 impact investors and 14,165 portfolio companies. We code impact investors according to established categories such as legal form, types of investments and return objectives. We then develop measures of the relative importance of social impact for each investor in an effort to add a new analytic categorization. We conclude by describing the distribution of investors and firms across these various categories.

Introduction

Impact investing has grown significantly over the past 15 years. From a niche investing segment with only \$25 billion in assets under management (AUM) in 2013 (WEF 2013), it has experienced double-digit growth and developed into a market with an estimated \$502 billion AUM by the end of 2018 (Mudaliar and Dithrich 2019). Yet, to date, there has been relatively little systematically collected data on impact investing, and even less on the portfolio companies that impact investors fund. This lack of data presents challenges for academics and investors seeking to better understand the promise and limitations of impact investing. This paper introduces a new database of impact investors matched to their portfolio companies. We hope this resource will spur research that generates a deeper understanding of impact investing.

Impact investors look for investment opportunities that produce both social and financial gains. This dual or double bottom line mandate is particularly attractive to individuals and institutions seeking market-oriented solutions to societal problems. Indeed, some investors view it as the future of capitalism. As a 2018 report by the Global Impact Investing Network (GIIN)² notes, they “aspire to create a world in which social and environmental factors are routinely integrated into investment decisions, as the ‘normal’ way of doing things” (Bouri *et al.* 2018). Others, however, are skeptical about this emerging activity, with one investor comparing impact investing to “a houseboat. It’s not a great house, and not a great boat” (Upbin 2012).

² The Global Impact Investing Network is an organization that advances impact investing through organizing forums for investors, conducting research on impact investing, as well as developing infrastructure, educational resources, and other tools for the impact investing industry.

Impact investing is related to, but distinct from, Environmental Social and Governance (ESG)-focused investing, which typically focuses on public securities. It is also distinct from the issuance of green bonds. Both of these related activities have experienced rapid growth as well. The UN launched its six Principles for Responsible Investment in 2006 to promote greater commitment to ESG issues amongst global investors, garnering 100 signatories. By the start of 2020, more than 3,000 organizations managing about \$90 trillion had signed on (PRI 2020). Meanwhile, the year 2019 marked the highest recorded issuance of global green bonds and green loans, totaling \$257.7 billion, an increase of 51% on the previous year (CBI 2020).

While the impact investing industry is both growing and maturing, obtaining comprehensive and accurate data continues to be a challenge. To date, experts have primarily relied upon surveys and case studies of organizations that opt into research to produce insight into the state of impact investing (Longitude and Rockefeller 2019; Mudaliar *et al.* 2019; OECD 2019; US SIF 2018). Meanwhile, because of the scarcity of data on this topic, academic research has often focused on a single dimension, measuring returns, yielding mixed results (Barber *et al.* 2019; Gray *et al.* 2015; Kovner and Lerner 2015). This paper seeks to address this gap by aggregating data already present in existing financial databases and complementing it with several additional important variables. Such an endeavor not only gives us more comprehensive information on the characteristics of impact investors and their investments, but also presents an opportunity to re-evaluate how we categorize and analyze impact investing within our research.

Our work

We combine data from several financial databases to facilitate an investigation into the state of the impact investing industry. We build an extensive catalog of impact investors that includes information on impact investors themselves and their portfolio companies. We further analyze this data to reveal patterns in and new insights into the practice of impact investing.

We define impact investors to be investors with the explicit dual objective of generating social good and financial returns. There is not yet a widely adopted single definition of impact investing. For instance, the GIIN's definition includes evidence-based impact measurement and management (Bass *et al.* 2020); meanwhile, the Global Steering Group for Impact Investing adds the concept of scale alongside measurability (GSG n.d.); finally, the International Finance Corporation ("IFC") definition specifies an impact thesis or narrative as a central method of connecting impact investors' intentions to their goals (IFC 2019). While we concur that impact theses, scale, and evidence-based metrics are important features of impact investing, we are currently unable to include these additional criteria due to lack of available data. We hope to remedy this in the future. As a first step, we outline a methodology in Part 5 to assess investors' approach to impact investing.

To compile our catalog of impact investors and portfolio companies, we draw upon information in multiple financial databases, performing extensive matching and data quality checks. We then compare our results with expert judgements, published reports, and other independent research to remove firms that do not target both social good and financial returns. An important contribution of our efforts relative to the existing literature is a recognition of the significant and material heterogeneity within the impact investing sector;

and we identify and analyze differences along these dimensions: legal form (profit or non-profit), type of investment (equity, non-equity, hybrid), and financial objective (targeting competitive market-rate returns or promising concessionary returns).

Throughout the paper, we use the term “impact investor” to refer to impact investment firms³. We use the term “portfolio company” to refer to the entities that receive funding from impact investors, recognizing that not all such entities are full-fledged companies. We will continue to refine this database to present an ever-more complete picture of the impact investing landscape. In addition, we plan to build upon this work by studying a sample of impact investors’ portfolio companies in greater depth. Overall, our goal is to provide a much-needed population baseline resource from which to develop further empirical studies.

Literature Review

This paper seeks to contribute to a small, but growing, economic literature on impact investing. Thus far, studies have primarily focused on the extent to which impact investors are able to achieve market-rate returns while remaining committed to their mission of impact.

An early report by the researchers from the Wharton Social Impact Initiative (“WSII”) draws upon survey evidence from a subset of 32 impact investors seeking market-rate returns. It argues that their reported returns (in many cases, apparently before fees) are similar to the S&P 500 (Gray *et al.* 2015).

³ The prevailing private market structure is that an impact investment firm will raise capital through a fund offering, for which that firm is legally designated as the fund manager or general partner, to make investments into portfolio companies for a standard period of 8 to 10 years, though longer structures exist. An impact investment firm may have more than one fund.

Later studies compare the performance of impact investors to traditional venture capital funds. These generally argue that the former tends to underperform. For instance, Barber *et al.* (2019) find that 159 impact funds earn an annualized internal rate of return (“IRR”) 4.7 percentage points lower than that of traditional venture capital funds, though this result does not separately measure returns for concessionary vs. non-concessionary funds. Relatedly, Kovner and Lerner (2015) study the investments of 28 community development venture capital firms (“CDVCs”). They show that CDVCs invest in markets that have historically enjoyed very limited venture capital activity and that the portfolio companies of the CDVCs in their sample were less likely to be exited successfully than the portfolio companies of traditional venture capital firms.

Other studies have focused on the organizational practices of impact investors. They examine the extent to which these practices align with the goal of generating both profit and societal benefit. In a study that builds upon the WSII sample of 53 impact funds, Geczy *et al.* (2020) examine 214 contracts between limited partners (“LPs”) and general partners (“GPs”) to analyze how these contracts contribute to or detract from the goal of impact. They find that GPs within their sample are almost always compensated on the basis of financial performance, an incentive that endangers the goal of impact if it is not aligned with profit. Yet Geczy *et al.* (2020) also observe practices that demonstrate impact investing is not merely “greenwashing.” For instance, they observe enforceable commitments to non-financial goals, as well as significant LP oversight over funds and portfolio companies. They ultimately conclude that such impact-oriented contract adaptations enable impact investors to maintain progress towards their dual goals.

The early research on the financial performance of impact investors leaves many questions unanswered. How important is the potential for bias from sample selection induced by voluntary reporting? Are funds that seek market-rate returns able to achieve them? How does financial performance vary across impact investors, for instance, by industry, location, or return targets? What is the relationship between financial returns and social impact? How might this relationship be altered through contracting and other organizational practices? Our study will lay the groundwork for further work on these questions, as well as others including the nature of the social impact and risks associated with impact investing.

Overview

This paper is divided into the following sections. In Part 1, we provide a high-level methodological approach to constructing our universe of impact investors and matching impact investors with their portfolio companies. We provide extensive detail into this process in the Appendices. In Part 2, we outline the characteristics of the impact investing universe. In Part 3, we describe patterns across portfolio companies. In Part 4, we examine how investment patterns differ across categories of impact investors. In Part 5, we attempt to differentiate investors based on the importance of social impact to their overall strategy and then characterize the universe of investors and portfolio companies according to impact importance.

Part 1: Constructing a Comprehensive Database of Impact Investors and Portfolio Companies

There is currently no single source that can produce a comprehensive overview of the impact investing universe. To fill this gap, we develop two matched databases: one that aggregates data on “impact investors” from leading financial databases and one that contains the impact investors’ portfolio companies. The first part of this paper describes the construction process of our databases of 445 impact investors and 14,165 portfolio companies.

1.1. Impact Investor Universe Construction

We construct a database of 445 impact investors using nine⁴ established resources on impact investing: 1) ImpactBase, 2) the Community Development Venture Capital Association (CDVCA) website, 3) the Impact Assets website, 4) Prequin’s alternative assets database, 5) Impact Capital Managers (“ICM”) members, 6) the list of asset managers who are GIIN members, 7) GIIN’s Investors’ Council members, 8) the signatories to the Operating Principles for Impact Management, and 9) the Private Equity International (“PEI”) Awards “Impact Investment Firm of the Year” top 3 mentions for the years 2017 - 2019.

We begin by identifying and gathering impact investment firms that exclusively invest in impact investments and traditional investment firms that have large dedicated divisions devoted to impact investing. The latter includes investment firms such as TPG Capital and Bain Capital that sponsor a wide variety of traditional investment funds as well as impact-focused funds (e.g., TPG Rise and Bain Double Impact, respectively).

⁴ We use the last four resources in one methodology for finding impact investment firms, which we describe below. We will refer to this methodology as a single source and thus, hereafter, we will refer to six sources.

First, we search for impact investors in ImpactBase, a database of impact investors maintained by the Global Impact Investor Network (GIIN). We find 208 impact investors.⁵

Second, following Kovner and Lerner (2015), we collect the names of all impact funds listed on the Community Development Venture Capital Association (“CDVCA”) website (<http://cdvca.org/>). The CDVCA is a network of venture capital firms that provide equity capital to businesses in underinvested markets, while seeking market-rate financial returns, as well as the creation of “good jobs, wealth, and entrepreneurial capacity.” Using Kovner and Lerner (2015) and from the updated CDVCA website⁶, we gathered a total of 88 funds managed by 44 different impact investors.

Third, we collect impact investors from Impact Asset’s annual list of top impact investors known as the “Impact Assets 50.” Impact Assets is a non-profit organization established in 2010 to facilitate direct impact investing through donor advised funds. In 2011, the organization created an annually updated list of 50 private debt and equity fund managers as a service to the broader impact investing community. We gather all the impact investors that have been listed on the Impact Assets 50 list from 2011 through 2019. This process yields 110 impact investors.

Next, following Barber, Morse and Yasuda (2019), we screen Preqin, a leading database on the financial performance of alternative assets, to identify additional impact investors.⁷ We begin our Preqin screen by screening investment firms that self-identify as having a “fund ethos.” The “fund ethos” variable in Preqin’s database allows investors to self-

⁵ We accessed the ImpactBase list on the ImpactBase website on June 15, 2018.

⁶ We accessed the CDVCA website for these funds in May 2019.

⁷ We accessed the Preqin database for fund information on the July 30, 2018.

identify as having an ethos that falls into at least one of the following five categories: “Microfinance”; “Economic Development”; “Socially Responsible”; “Environmentally Responsible” and “Sharia Compliant.” We add all investment firms that identify as having a fund ethos to our preliminary list of Preqin impact investors, excluding those investment firms whose only listed fund ethos is Sharia Compliance.⁸ We expand this preliminary list by adding investment firms whose stated industry focus corresponds with so-called impact sectors. In particular, we add investment firms that primarily invest in “Clean Technology,” “Education/Training,” and “Environmental Services.” Finally, we further add investment firms that primarily invest in low-income countries, identified as those countries with a GDP per capita of less than \$1,400 USD. This process results in a total of 2,747 potential impact investors for further investigation.

Next, we narrow the set of 2,747 potential impact investors by eliminating those that do not align with our definition of impact investors. We screen the 2,747 potential impact investors by manually checking their websites (if available), to see if they make any mention of a dual aim of generating social and financial returns. We accomplish this by using Amazon’s crowdsourcing marketplace, Mechanical Turk (“MTurk”) and their online workforce of “MTurkers.” We ask the MTurkers to collect the description, stated mission, and investment strategy as listed on the potential impact investor’s website, and to identify whether or not they make mention of the dual aim of generating both financial and social returns.

⁸ This exclusion is motivated by our understanding that these religiously motivated investors typically seek to generate financial returns in a manner consistent with religious principles, rather than to advance religious or social goals through their investment activities.

For each potential impact investor, we asked three MTurkers to review its website. If two of three MTurkers voted to exclude an investor, it was excluded. Using this approach, we narrow the list of 2,747 to 624 potential impact investors. Again, following Barber, Morse and Yasuda (2019), these remaining 624 were then manually verified by a member of the Project on Impact Investments team, through a careful review of the background and strategy on the impact investor's website to identify any mention of the dual objectives of social impact and financial returns. Only those investment managers who make explicit statements that signal a dual objective were classified as impact investors. Through this process, we identify 199 impact investors from Preqin, compared to the 159 identified by Barber *et al.* (2019) in the period from 1995-2014. One potential explanation for the difference is that our investor types may differ. For example, we focus on private capital investments and try to exclude fund of funds. Also, we suspect that many of the additional investors that we identify are entrants to the Preqin database between 2014 and 2018.

We also include all firms that are Impact Capital Managers members. Impact Capital Managers ("ICM") is a membership association⁹ of General Partners primarily in the US and Canada that are committed to positive impact through investments while seeking competitive, market-rate returns. ICM currently has 48 members representing more than \$11 billion in impact-focused capital.

Lastly, we include firms that appear on two of the following three lists: 1) Global Impact Investing Network ("GIIN") members (either asset managers who are GIIN members

⁹ Membership is by invitation only. Members must meet certain criteria: 1) GP of funds with multiple investors, investing in private companies, 2) AUM of \$20mm or more, 3) GP must make an explicit commitment to positive impact through investments, 4) report on fund impact or have a credible plan to do so, 5) seek competitive, market-rate returns, and 6) are located in US or Canada and are investing primarily in those geographies.

or GIIN's Investors' Council members), 2) Operating Principles for Impact Management signatories, 3) PEI Awards "Impact Investment Firm of the Year" top 3 mentions for the years 2017 - 2019. We use this strategy of selecting investors that are on two out of the three lists because some of the lists are self-selected¹⁰ or are determined by non-industry experts (For instance, even though PEI awards are not self-selected, they are voted on by the PEI online readership). By focusing on the overlap between these lists we are more likely to corroborate and to gather the investors who are the most dedicated to impact. This screening results in 39 potential impact investors. Below is a brief description of each list.

Global Impact Investing Network ("GIIN"):

- **GIIN's Investors' Council** is a forum where leading impact investors, comprised of asset owners and asset managers with diverse interests across sectors and geographies, meet to discuss and strengthen the practice of impact investing.
- **GIIN Membership** provides a platform for members to support investors and the growth of their impact investment practices. Investors that make impact investments or seek make impact investments as well as organizations that provide services to impact investors (e.g., law firms, rating agencies) are invited to apply for membership. Member dues are paid annually.

Operating Principles for Impact Management is an initiative developed to provide a framework for investors to ensure that impact considerations are purposefully integrated

¹⁰ GIIN members need to apply for membership, The GIIN reserves the right to decline membership applications. Operating Principles for Impact Management signatories are more strict, but still self-selected. Each signatory is required to publish an annual disclosure statement in which they describe how each Principle is incorporated into its investment process and the extent of its alignment with each Principle.

throughout the investment life cycle. Launched in 2019 at the World Bank Group/IMP Spring Meetings in Washington, D.C., signatories to these principles are impact investors that are publicly demonstrating their commitment to implementing a global standard for managing investments for impact.

Private Equity International Awards: Private Equity International (“PEI”) is an online global publication with a primary focus on the relationship between investors and fund managers in private equity. Every year since 2001, PEI has recognized the contributions of key decision-makers to the development of the asset classes through global industry awards, determined through a reader poll.

We combine the information from all of the sources to create a list of 631 non-unique impact investors. We eliminate duplicates across the sources to create the final list of 445 unique impact investors. Our final sample includes 432 exclusive impact investing investment firms and 13 traditional private equity firms that have large impact investment funds. We also collect five Development Finance Institutions, but we exclude these from this initial work.

We describe the sources and the construction process of our list of impact investors in more detail in Appendix I.

1.2 Matching Impact Investors and Portfolio Companies

After aggregating our set of 445 impact investors across the sources, we develop a systematic approach for identifying information about their investments, which are overwhelmingly privately held companies.¹¹ For the purpose of clarity, we refer to such investments as portfolio companies.

We use six different information sources to connect the 445 impact investors to their portfolio companies. First, we use the following five commercial databases to connect impact investors to particular investments:

Crunchbase: Crunchbase is a data-as-a-service vendor founded in 2007 that crowdsources information about private companies, investors, and funding events. This information is verified and made available via a web-based platform.

PitchBook: PitchBook is a commercial data and research services firm founded in 2007 to aggregate information on companies, deals, funds, investors, and service providers across the private investment lifecycle. It became a subsidiary of Morningstar in 2016.

Preqin: Preqin is a data provider founded in 2003 that collects information on private equity and venture capital companies, funds, and deals.

Standard & Poor's Capital IQ: Standard & Poor's Capital IQ database ("CapIQ") is a data product of Standard & Poor's Global Market Intelligence. It compiles information on public and private firms, private capital firms, executives and directors, industry sectors, and transactions on a global basis.

¹¹ Based on a review of CapIQ, approximately 88% of the portfolio companies (with non-missing data) are categorized as private companies. The remaining 12% of portfolio companies are a range of categories including real assets, educational institutions, and trade associations.

VentureXpert: VentureXpert is a data product of Thomson Reuters focused on the venture capital industry.

We merge our list of 445 impact investors with each of these databases. For each impact investor, we separately record the portfolio company names listed by each of the sources.

Second, to verify and augment our list of portfolio companies, we review impact investor websites and collect the names of their listed portfolio companies. We use Amazon MTurkers to go to the impact investor websites and collect portfolio company names; we ask three separate MTurkers to do this per impact investor. If three MTurkers agree on the same portfolio company, we add the portfolio company to our list. If there are any discrepancies between the collected data, we manually check the results before augmenting our list of portfolio companies. This strategy has some limitations. For instance, for impact investors who have both impact and non-impact funds, we risk gathering names of portfolio companies that may be funded through non-impact funds. Also, another potential limitation of this approach is survivorship bias as impact investors may only list their successes, but not failures, on their websites.

Table 1 summarizes the portfolio company coverage by the six sources: PitchBook, CapIQ, MTurkers-collected, Preqin, Crunchbase, and VentureXpert. PitchBook has the highest coverage with 8,031 non-unique portfolio companies, with CapIQ and our hand-collection strategy using MTurkers close behind with 7,122 and 6,230 non-unique portfolio companies, respectively. The total number of portfolio companies before we remove duplicates is 31,520.

Table 1
Portfolio Company Coverage by Source (Non-unique)

Source	Count	Percent
PitchBook	8,031	25.5%
CapIQ	7,122	22.6%
MTurkers	6,230	8%
Preqin	3,845	12.2%
Crunchbase	3,425	10.9%
VentureXpert	2,867	9.1%
Total	31,520	100%

Given the overlaps across sources, portfolio companies for an investor could appear as many as six times. After removing duplicates, we are left with 14,165 unique portfolio companies. Interestingly, the number of unique impact investor-portfolio company combinations is 16,354, indicating that a fraction (11.3%)¹² of the portfolio companies are syndicated with at least two impact investors.

Table 2
Number of Portfolio Companies

	PCs	Percent
Unique Source-Impact Investor-Portfolio company	31,520	100%
Unique Impact Investor-Portfolio Company	16,354	52%
Unique Portfolio Companies	14,165	45%

Using the six sources provides an approach that is as exhaustive as possible for gathering portfolio companies. Each of these six sources relies on different underlying sources of basic information, covers different subsets of investors, and yields different lists

¹² Table 6 provides the number of impact investors for each portfolio company.

of portfolio companies. Four of the five commercial databases use the U.S. government Freedom of Information Act (FOIA) to access private information that is collected by governments. Preqin supplements this with research conducted by their own staff. Three of the databases rely on surveys of investment partnerships and/or the limited partners (LPs) who supply capital. Crunchbase is unique in that it is largely crowdsourced. Finally, our own hand-collected efforts, with support from MTurkers, rely on investor websites. Table 3 summarizes information sources.

Table 3
Source Comparison based on Information Origin

Source	Impact Investor Contributed	LP Contributed	FOIA	Website	Crowd-sourced
Preqin			X		
VentureXpert*	X		X		
PitchBook	X	X	X		
Capital IQ	X	X	X		
Crunchbase					X
MTurkers				X	
Limitations	Contribution bias	Contribution bias	Limited to state and municipal pension funds	Success bias	Prominence/success bias

*Thomson One/SDC Platinum/VentureExpert/Thomson Venture Economics

Recognizing the potential limitations across all of the sources, we examine the extent to which our impact investors and their portfolio companies were covered by each

information source and compare the overlaps across sources. We provide a detailed analysis in Appendix II.

1.3 Discussion

The process we outline and the database it yields complements existing research on impact investing. While each individual information source we use has its own limitations and biases, by combining and reconciling data between all, we seek to minimize the biases and noise in the data. Our multi-source effort and careful aggregation has the potential to shed new light on impact investing by capturing companies that have never responded to surveys.

An additional area for expansion lies in collecting data on returns that are not generally available to the public. This is an area that we hope to address in future iterations through engagement with impact investors and confidentiality protections.

Part 2: Characterizing the Universe of Impact Investors

The characteristics of impact investors in our database detail an industry that experienced significant growth in the twenty-first century, and one that is predominantly based in the developed world. This aligns with research that has been conducted on impact investing thus far (IFC 2019; Mudaliar *et al.* 2019; OECD 2019).

2.1 Impact Investor Location

Table 4 below provides a breakdown of the location of the impact investor headquarters. More than three quarters of our impact investors are headquartered in developed markets (365 or 82.0%). Half of our list (236 or 53.0%) is based in the United States (U.S.), and nearly a quarter (106 or 23.8%) in North, South, & West Europe and the United Kingdom. The remaining impact investors (80 or 18.0%) are headquartered in emerging markets. Compared to the universe of all private equity investors as reported in the *2020 Preqin Global Private Equity & Venture Capital Report*, our impact investors are more concentrated in the U.S. (53.0% vs. 37.4%) and in emerging markets (18.0% vs. 14.6%). Also, while private equity investors headquartered in East Asia, which includes China, Hong Kong, Japan, and South Korea, represent almost one quarter of all private equity firms, only 1% of impact investors are located here.

Table 4
Location of Impact Investor Headquarters^a

Region	Impact Investors	%	All Private Equity Investors ^b	%
Developed Markets				
U.S.	236	53.0%	6,784	37.4%
Canada	9	2.0%	418	2.3%
East Asia	4	0.9%	4,675	25.8%
North, South and West Europe	75	16.9%	2,336	12.9%
Oceania	10	2.2%	275	1.5%
United Kingdom	31	7.0%	989	5.5%
Total Developed	365	82.0%	15,477	85.4%
Emerging Markets				
Eastern Europe, Russia, Central Asia	1	0.2%	690	3.8%
Latin American, Caribbean, Mexico	18	4.0%	452	2.5%
Middle East and North Africa ^c	4	0.9%	790	4.4%
Southeast Asia	13	2.9%	293	1.6%
South Asia	15	3.4%	418	2.3%
Sub-Saharan Africa	29	6.5%	N/A	
Total Emerging Markets	80	18.0%	2643	14.6%
Total	445	100.0%	18,120	100.0%

^a Regions based on GIIN

^b Source: 2020 Preqin Global Private Equity & Venture Capital Report

^c The 790 private equity firms in column 3 include Israel and all of Africa.

Within the U.S., the location of impact investors aligns closely with the locations of venture capital and private equity firms. Three states, California (52), New York (43), and Massachusetts (17) are the most common headquarters locations for impact investors, while the combined count for impact investors based in the Washington D.C. area (including

Maryland and Virginia) is 23. The latter may be related to the high concentration of DC-based global financial institutions that support poverty alleviation. For more details, see Appendix Table A.13 for a breakdown of U.S. impact investors by state of headquarters.

The United Kingdom has the second highest count of impact investors after the U.S. with 31 distinct impact investors. A number of the early impact investors are domiciled in the United Kingdom, including Iona Capital (1981), Makeda Fund Manager (1997), Nesta Impact Investments (1997), and Impax Asset Management (1998). Furthermore, the world's first social impact bond debuted in the U.K. in 2010. Switzerland has the third highest count of impact investors with 18 impact investors.

India is the country with the fourth highest count of impact investors and is the most common domicile of emerging market headquartered investors. See Appendix Table A.14 for a detailed breakdown of impact investors by country.

2.2 Impact Investor Founding Year

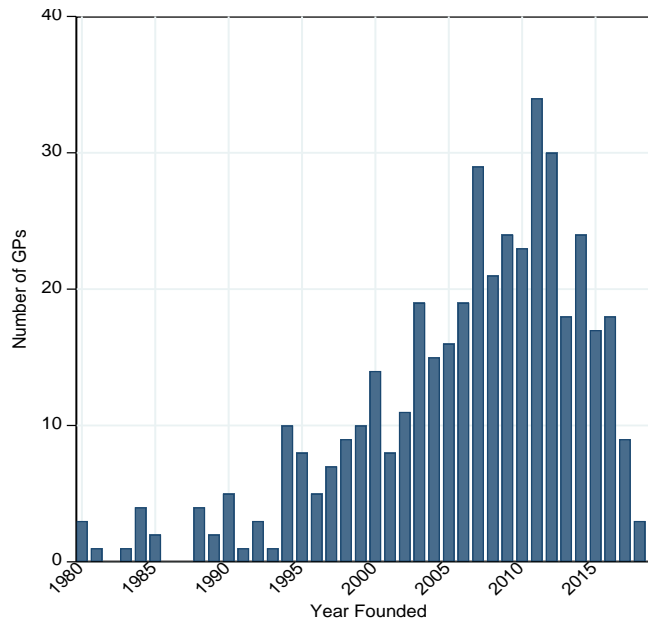
We identified founding year information for all of the impact investors. There are 15 impact investors founded before 1980. Five of these early impact investors founded before 1980 are primarily traditional private equity investors that have more recently started dedicated impact-investing units. The earliest impact investor focused exclusively on impact investing was founded in 1946 which marked the founding of The Nature Conservancy. The nine other impact-exclusive firms founded prior to 1980 are located in the U.S. and Canada.

As Table 5 and Figure 1 below reveal, the industry began growing in the last decade of the twentieth century and took off dramatically in the early twenty-first century. 80% (354) of the sample were founded in the past 20 years and 11.0% (49) are less than 5 years old.

Table 5
Impact Investor Year Founded

Founding Year	Count	Percent
Before 1980	15	3.4%
1980-84	9	2.0%
1985-89	8	1.8%
1990-94	20	4.5%
1995-99	39	8.8%
2000-04	67	15.1%
2005-09	109	24.5%
2010-14	129	29.0%
2015-19	49	11.0%
Total	445	100%

Figure 1
Impact Investor Year Founded



Part 3: Characterizing the Universe of Portfolio Companies

In order to reveal more about our universe of impact investing, we aggregate data on the portfolio companies of impact investors. To do so, we rely primarily on the CapIQ database and supplement with data from PitchBook and Preqin databases.

CapIQ's database on firm information is one of the most comprehensive sources and provides a preliminary portrait. We find that 11,506 out of our 14,165 impact portfolio companies (81.2%) are in CapIQ, but these profiles do not provide full information on each portfolio company. Thus, to build our database, we download all available information from CapIQ and then fill in missing information by searching PitchBook and Preqin. If there is still missing information, we further do a preliminary scan of news sources and websites for the U.S.-based portfolio companies.

While the data collection for the portfolio companies is an ongoing project, we present some preliminary statistics below, including: number of impact investors per company, founding year, geography, industry, and number of employees. We also present a comparison of our portfolio company database to existing survey research.

3.1 Number of Impact Investors

In Table 6, we see that syndication with multiple impact investors is not that prevalent. 88.7% of the portfolio companies only have one impact investor from our database. Note that these portfolio companies could have non-impact investors as well, which are not tabulated here.

Table 6
Number of Impact Investors
invested in each Portfolio Company

Number of impact investors	Count	Percent
1	12,561	88.7%
2	1,213	8.6%
3	280	2.0%
4	63	0.4%
5	29	0.2%
6	10	0.1%
7	6	0.0%
8	1	0.0%
9	1	0.0%
11	1	0.0%
Total	14,165	100.0%

The top 10 portfolio companies with the greatest number of impact investors are listed in Table 7. These top portfolio companies appear to be primarily large international finance companies that provide loans or micro financial services in emerging markets.

Table 7
Top 10 Impact Investor Syndicated Portfolio Companies

Company Name	Number of impact investors
Aye Finance Private Limited	11
CreditAccess Grameen Limited	9
Ujjivan Financial Services Limited	8
Banco Solidario S.A.	7
Bhartiya Samruddhi Finance Limited	7
Equitas Holdings Limited	7
M-KOPA Sales App	7
Rustic Crust Inc.	7
Satin Creditcare Network Limited	7
Samunnati Financial Intermediation & Services Pvt. Ltd.	6

Among the top three are:

- Aye Finance Private Limited, a Delhi based non-banking finance company providing micro financial services.
- CreditAccess Grameen Limited, an India based non-banking financial company that provides microfinance services for women from poor and low income households.
- Ujjivan Small Finance Bank Limited, an India based bank that provides various banking products and services.

It is perhaps surprising that the frequency of co-investing among impact investors is so low. Many impact investors do co-invest with non-impact investors, a factor that is not captured by these numbers. It may also be the case that some financing rounds are small enough that a single impact investor is able to finance the entire round.

3.2 Portfolio Company Founding Year

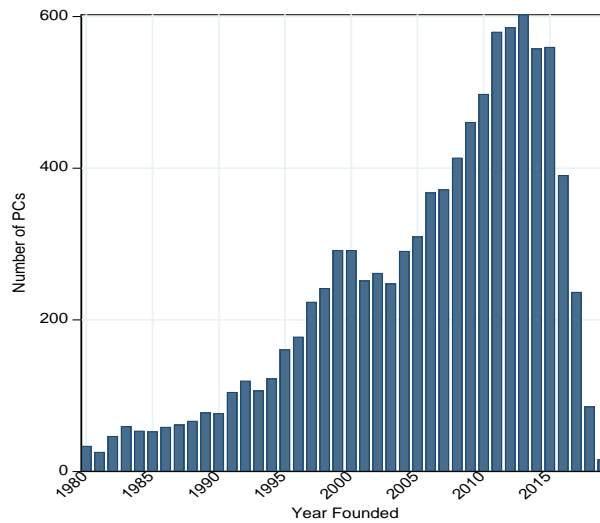
We obtain founding years for 10,170 (71.8%) of the 14,165 portfolio companies. Over a thousand, about 11.4% of the population, were founded prior to 1990. In contrast, more than 40%, 4,074, were founded in the past decade.

Table 8
Distribution of Year Founded for Portfolio Companies

	N	mean	min	p1	p5	p10	p25	p50	p75	p90	p95	p99	max
Year founded	10,170	2002	1760	1919	1975	1988	1999	2007	2012	2015	2016	2018	2019

Figure 2 shows the exponential growth of new portfolio companies funded by impact investors. This may reveal impact investors' preference to invest in younger companies. Alternatively, this may be attributable to the funding cycle of companies, which typically engage rounds of private funding at earlier stages before they are at a scale appropriate for broader debt and equity markets.

Figure 2
Portfolio Company Year Founded



3.3 Portfolio Company Location

For the 12,297 of 14,165 (87%) impact portfolio companies where we were able to obtain location information, 73.3% were headquartered in developed markets, with half (50.2%) based in the United States. This distribution is parallel to the location of impact investors within our database.

Table 9
Portfolio Company Location

Region	Count	% of all Portfolio Companies (n=14,165)	% of Portfolio Companies not missing Location (n=12,297)
Developed Markets			
U.S.	6,173	43.6%	50.2%
Canada	298	2.1%	2.4%
East Asia	286	2.0%	2.3%
North, South and West Europe	1,249	8.8%	10.2%
Oceania	133	0.9%	1.1%
United Kingdom	870	6.1%	7.1%
Total Developed	9,009	63.6%	73.3%
Emerging Markets			
Eastern Europe, Russia, Central Asia	203	1.4%	1.7%
Latin American, Caribbean, Mexico	776	5.5%	6.4%
Middle East and North Africa	237	1.7%	1.9%
Southeast Asia	248	1.8%	2.0%
South Asia	962	6.8%	7.8%
Sub-Saharan Africa	862	6.1%	7.1%
Total Emerging Markets	3,288	23.3%	26.8%
Sub-Total	12,297	86.8%	
Missing Region	1,868	13.2%	
Total	14,165	100.0%	

3.4 Portfolio Company Industry

The industry categories we use are derived from the Global Industry Classification Standard (GICS®), a four-tiered, hierarchical industry classification system developed by MSCI and S&P Dow Jones Indices.¹³ This is the industry standard used by the CapiQ database,

¹³ The four, hierarchical tiers of the GICS are the following, ordered from highest to lowest tier: sector, industry group, industry, and sub-industry. For more details on the GICS, see <https://www.msci.com/gics>.

our primary source for portfolio company data. We map industry data aggregated from other databases, such as PitchBook and Preqin, to the GICS classification for the purpose of standardization.

Five sectors account for approximately three quarters of all portfolio companies within our database: Information Technology (23%), Industrials (14%), Health Care (14%), Consumer Discretionary (11%), and Financials (11%). Within the sector of information technology, the most common sector across all portfolio companies, the industry group “software and services” accounts for 16.4% of all portfolio companies.¹⁴

In Table 10, we summarize the sector data for portfolio companies across impact investors headquartered in three different locations: (1) the U.S., (2) developed markets outside of the U.S., and (3) emerging markets. In addition, within the final column, we include the sector summary data for the portfolio companies of all impact investors in our database. A more detailed table that includes portfolio company information across more fine industry classifications, as well as across locations, is included in Appendix Table A.20.

Among impact investors based in the U.S. and other developed markets, information technology remains the most common sector for portfolio companies, accounting for 27% and 23% of the total respectively. However, for impact investors based in emerging markets, the percentage of portfolio companies within the information technology sector drops to 15%, while those dedicated to financials rises to the top place, accounting for 20% of the total. Within the “financials” sector of emerging market portfolio companies, the industry group of “diversified financials” accounts for 15.1% of all portfolio companies, a marked

¹⁴ Within the GICS classification, an industry group is one tier below the sector level.

increase over the 5.5% of portfolio companies of developed market impact investors in this industry group.

Emerging market impact investors are also more likely than developed market impact investors to invest in the consumer staples sector, which accounts for 11% of their portfolio companies, compared to the 5% of portfolio companies of developed market impact investors. On a more granular level, food products account for 9% of portfolio companies of emerging market impact investors, while they only account for 4% of portfolio companies of developed market impact investors.

As a final point of interest on the industry level, portfolio companies of the U.S. based impact investors stand out for their focus on the Health Care sector. 18% of all portfolio companies of the U.S. impact investors are dedicated to Health Care in comparison to 11% of the portfolio companies of other developed market impact investors and 8% of the portfolio companies of emerging market impact investors. In particular, the portfolio companies of the U.S. impact investors are more targeted at biotechnology, which accounts for 4.9% of their total, compared to 1.9% and 0.2% of the portfolio companies of other developed market and emerging market impact investors.

Table 10
Portfolio Company Industry Sector by Impact Investor Location

	U.S. Impact Investors		Other Developed Market Impact Investors		Emerging Market impact Investors		All Impact Investors	
	#	% of Non-Missing	#	% of Non-Missing	#	% of Non-Missing	Total	% of Non-Missing
	Communication services	507	9%	242	9%	227	7%	976
Consumer discretionary	662	11%	283	11%	348	11%	1293	11%
Consumer staples	313	5%	137	5%	351	11%	801	7%
Energy	64	1%	65	3%	45	1%	174	2%
Financials	403	7%	176	7%	622	20%	1201	10%
Health care	1070	18%	283	11%	242	8%	1595	14%
Industrials	775	13%	459	18%	427	14%	1661	15%
Information technology	1554	27%	607	23%	462	15%	2623	23%
Materials	214	4%	117	5%	130	4%	461	4%
Real estate	189	3%	77	3%	49	2%	315	3%
Utilities	61	1%	139	5%	152	5%	352	3%
Total Non-missing	5,812	100%	2,585	100%	3,055	100%	11,452	100%
Missing	361		251		2,101		2,713	
Total	6173		2,836		5,156		14,165	

Note that industry information is missing for approximately 19% of portfolio companies within the databases we access. While we hand collect much of this missing information for the U.S. portfolio companies to fill this gap, we are lacking this information for a large proportion of the portfolio companies held by impact investors located in other

developed markets and emerging markets. However, with over 80% complete information, we can reliably document some investment patterns.

3.5 Number of Employees

In Table 11, we find that portfolio companies represent a broad range of sizes in terms of number of employees and that there is a long upper tail to the distribution. Note, however, that this information is only available in commercial databases for 41% of the sample. Yet from the subset with reported employment, we find that 50% of portfolio companies are relatively small with 51 or fewer employees. This is consistent with what may be expected from the previously discussed finding that one third of companies were founded in the past decade.

Table 11
Distribution of Number of Employees

	N	mean	min	p1	p5	p10	p25	p50	p75	p90	p95	p99	max
Number of Employees	5,813	1203	1	1	3	6	14	51	200	924	2,945	19,650	400,000

3.6 Comparison to Survey Results

The patterns across portfolio companies within our database present new data that supplements, contrasts, and aligns with existing survey research. For instance, the geographic location of portfolio companies in our database offers evidence that supplements trends observed within surveys. While we examine the location of portfolio company headquarters, the GIIN’s 2019 Annual Impact Investor Survey (“2019 GIIN survey”) records the reported allocation of AUM across geography. Within these survey results, the U.S. & Canada are the recipients of 28% of the total AUM reported in the survey sample when large

outliers are excluded (Mudaliar *et al.* 2019). Meanwhile, our data suggests that the headquarters location and, likely, the management of portfolio companies is more often grounded within the developed world than the 2019 GIIN survey reveals. Notably, within our database 53.0% of portfolio companies have their primary office in the United States.

The industry patterns across portfolio companies in our database both contrast to and align with survey evidence gathered by the 2019 GIIN survey. For instance, the top industry by percentage represented amongst our portfolio companies is information technology (23%). Meanwhile, amongst a subset of respondents to the 2019 GIIN survey, information technology garners a mere 3% of AUM reported (Mudaliar *et al.* 2019).¹⁵ The high representation of information technology portfolio companies within our database does not necessarily run counter to the 2019 GIIN survey results, since this is not a capital-intensive sector. It does, however, suggest that impact investors are focusing more on information technology companies than we might infer from the survey research using AUM. Our high percentage of portfolio companies within the information technology sector is also likely to be an effect of the higher percentage of our portfolio companies being based in developed markets than in emerging markets.

A point of alignment between our research and the 2019 GIIN survey arises when we look at industry trends across developing and emerging markets. In both cases, financials stand out as much more prevalent both in terms of numbers and assets allocated within emerging markets (Mudaliar *et al.* 2019).

¹⁵ Within the 2019 GIIN survey, a subset of 98 respondents categorized their investments across GICS sectors, which align with our own work. Meanwhile, all 2019 GIIN survey respondents reported AUM allocated to impact investments alongside industry sectors specified by the GIIN. These GIIN sectors include “information and communication technologies” or “ICT” and the 2019 GIIN survey respondents report allocating 2% of overall AUM towards the ICT sector.

Part 4: Characterizing Portfolio Companies Across Categories of Investors

With its “double bottom line” focus on both financial returns and social impact, impact investing is a field that has attracted actors from the traditional financial sector (e.g. banks, investment advisors) and from the traditional charitable sector (e.g. foundations, non-profits). In effect, it sits along a continuum that is anchored by for-profit market-oriented investments at one end and social impact-oriented philanthropy at the other.

To parse the heterogeneity among impact investors across a number of dimensions, we categorize our impact investors according to three dimensions: legal form (for-profit/non-profit), type of investment (debt/equity/grant), and financial objective (market/concessionary). Among our 445 impact investors, the dominant investor type is a for-profit entity that makes equity investments and seeks market returns. However, this investor type only represents 47% (209 out of 445) of our database and we see variation across classifications and observe representative investors of all types. Interestingly, there is relative consistency in the overall patterns regardless of where the investor is headquartered.

4.1 Legal Form

Impact investors include both profit-oriented entities that seek financial returns, and non-profit organizations that seek to use the tools of investment to obtain greater social impact than might be possible through grant-making alone. Indeed, many of the most well-known impact investors, such as Accion, Acumen, and Grameen, are non-profits. Non-profit impact investments can be in the form of loan or equity investments, and typically reinvest any financial returns in further impact investing projects, or use returns to finance grants or other charitable activities.

We classify the impact investors in our set as profit or non-profit organizations. We first review the impact investor’s website to try to determine whether an impact investor is profit or non-profit oriented. For the U.S. firms, we are able to confirm non-profit status using GuideStar, a database that collects data on non-profit organizations using sources such as the U.S. Internal Revenue Service’s Form 990 filings.

In Table 12, we show that the non-profit form is not uncommon, comprising 17% of all impact investors. The U.S. has a higher percentage of non-profit impact investors (26%), a percentage approximately four to seven times higher than other developed countries and the emerging markets, respectively.

Table 12
Legal Form by Impact Investor Location

	U.S. Impact Investors		Other Dev Impact Investors		Emerging Market Impact Investors		All Impact Investors	
		%		%		%		%
Profit	173	73%	115	89%	72	90%	360	80%
Non-Profit	62	26%	8	6%	3	4%	73	17%
N/A	1	0%	6	5%	5	6%	12	3%
Total	236		129		80		445	

4.2 Type of Investment

The financial tools that are deployed in this sector are quite varied. The 2019 GIIN Survey documents investments across private debt, private equity, public debt, public equity, real assets, equity-like debt, deposits and cash equivalents, and an “other” category (Mudaliar *et al.* 2019). For this analysis, we have characterized investments broadly as either

equity-based, equity-debt hybrid, or non-equity, which includes debt investments, loan guarantees, microfinance loans, or grants.

We are particularly interested in observing patterns across impact investors that are private equity firms, making equity-type investments rather than debt-type investments. In future studies, we plan to compare this category of impact investors with traditional venture capital and private equity groups on such dimensions as performance, job creation, and contracting.

We differentiate those investors that exclusively engage in equity-based investments (Equity) from those that either do a combination of debt and equity (Hybrid) or are primarily engaged in other forms of investment (Non-equity) based on review of the kinds of investments made by impact investors. (N/A - not able to determine.)

As Table 13 reveals, approximately two thirds of impact investors in our database are focused on equity investments exclusively. The proportion appears slightly higher in the U.S., but there are no statistically significant distinctions across geography.

Table 13
Investment Type by Impact Investor Location

	U.S. Impact Investors		Other Dev Impact Investors		Emerging Market Impact Investors		All Impact Investors	
		%		%		%		%
Equity	160	68%	73	57%	51	64%	284	64%
Hybrid	33	14%	41	32%	21	26%	95	21%
Non-equity	37	16%	7	5%	3	4%	47	11%
N/A	6	3%	8	6%	5	6%	19	4%
Total	236		129		80		445	

4.3 Financial Objective

Barber *et al* (2019) examine the performance of impact investors as a whole, comparing them to traditional private equity groups. We seek to expand upon their work by parsing the impact investors by return targets. In this way, we can examine the behavior and performance of various classes of impact investors.

We suspect that impact investors whose objective is to seek social returns with no compromise to achieving market-rate financial returns could be different than those that have concessionary returns. Thus, we categorize our impact investors based on their stated return objectives, if available, on their websites.

Table 14
Financial Return Objectives by Impact Investor Location

	U.S. Impact Investors		Other Dev Impact Investors		Emerging Market Impact Investors		All Impact Investors	
		%		%		%		%
Market	139	59%	91	71%	53	66%	283	64%
Concessionary	46	20%	17	13%	9	11%	72	16%
No Return	43	18%	19	15%	18	23%	80	18%
N/A	8	3%	2	2%	0	0%	10	2%
Total	236		129		80		445	

We categorize return objectives into Market (impact investors that seek market or above-market financial returns), Concessionary (impact investors that seek financial returns but are willing to compromise that financial return for social returns), No Return (impact investors that do not say anything about their financial return objectives), and N/A (impact investor website is not accessible).

In Table 14, we see that while most investors state that they are seeking market returns, there were a surprising number that made no mention of return aspirations and a substantial minority who indicated they were willing to trade financial returns for social impact. Again, there is little systematic variation by geography.

4.4 Profit and Return Targets

The dominant type of impact investor in our set is a for-profit entity making equity investments and seeking market returns. However, this dominant type only accounts for 47% (209/445) of the impact investors we identified.

When we undertake cross-tabulations for the set of firms that we were able to classify, we see some important differences in types of investments and in the stated financial objectives across legal forms; non-profit investors appear more varied along both dimensions. First, for-profit investors are strongly oriented towards equity investments. Nearly three-quarters of the for-profit investors (263 of 355) focus exclusively on equity investments, as opposed to only 29.7% of the non-profit investors (19 of 64). Second, for-profit investors are strongly oriented towards seeking market returns. Slightly more than three-quarters of the for-profit investors (268 of 355) explicitly expressed a desire to achieve market returns, compared to only 18.8% of non-profit investors (12 of 64). However, there were still a substantial number of for-profit equity investors who did not claim to be seeking market returns and instead explicitly stated that they were willing to accept concessionary returns (N=26) or avoided any mention of returns (N=28).

Table 15
Impact Investors by Legal Form, Investment type, and Financial Return Objective

	Profit			Non-Profit		
	Market	Concessionary	No Return	Market	Concessionary	No Return
Equity	209	26	28	6	5	8
Hybrid	49	13	14	3	9	6
Non-equity	10	0	6	3	17	7
Total	268	39	48	12	31	21

*Based on 419 (out of 445) impact investors with non-missing information

4.5 Number of Portfolio Companies

The number of investments made by the impact investors in our set ranges from 0 to 837. However, the 837 investments made by one impact investor, Village Capital, an incubator/accelerator. This is an extreme outlier, and we learned that the count represents cohort participants, not necessarily equity investments. The 99th percentile number, 450, is less than half. Additionally, while the mean number of portfolio companies is 44, the median is 22. We calculate that traditional private equity funds have historically made between 3 and 71 investments, with an average of 25 based on the average fund and investment sizes from the sample in Humphrey-Jenner (2012). Note that there are 70 impact investors that either have not yet invested in any portfolio companies or the information was not available.

Table 16
Distribution of Number of Portfolio Companies per Impact Investor*

	mean	min	p1	p5	p10	p25	p50	p75	p90	p95	p99	Max
Number of Portfolio Companies	44	1	1	1	3	9	22	46	94	149	450	837

*Based on 374 impact investors that had at least one portfolio company from the six sources.

We took a closer look at the impact investors with the highest number of portfolio company investments in Table 17. There is an overrepresentation of non-profit impact investors in this set and virtually all are U.S. based. They appear to focus on seed funding and to have a strategy of spreading their investments across a large number of recipients.

Table 17
Top 10 Impact Investors by Number of Portfolio Companies

Impact Investor	Legal Form	Investment Type	Financial Objective	Location	Number of Portfolio Companies
Village Capital	non-profit	equity	no return	U.S.	837
Advantage Capital Partners	profit	equity	market	U.S.	534
Oikocredit USA	non-profit	hybrid	concessionary	U.S.	532
Actis	Profit	Equity	Market	UK	449
Greenspring Associates	profit	equity	market	U.S.	382
Social Capital	profit	equity	market	U.S.	376
SEAF	non-profit	equity	market	U.S.	323
NewSchools Venture Fund	non-profit	non-equity	concessionary	U.S.	284
Adva Capital Ltd.	N/A	N/A	no return	Russia	275
MPM Capital	profit	equity	market	U.S.	270

4.6 Location of Portfolio Companies by Location of Impact Investor

Table 18 reveals that while there is a relatively even split between investments in the U.S. (50.3) and outside of the U.S. (49.7), the headquarters of the investor strongly influences the location of the portfolio companies they invest in. U.S. investors are unsurprisingly almost four times more likely than the non-U.S. investors to have U.S.-based portfolio companies.

Table 18
Portfolio Company Location by Impact Investor Location*

Investment Location	U.S. Impact Investor (n=205)		non-U.S. Impact (n=163)		All Impact Investors (n=368)	
	count	% of non-missing	count	% of non-missing	count	% of non-missing
US	6,341	43.9%	931	6.4%	7,272	50.3%
non-US	2,709	29.9%	4,473	30.9%	7,182	49.7%
missing	1,267		633		1,900	
Total	10,317		6,037		16,354*	

*Note: 16,354 represents the number of unique impact investor-portfolio company investments. Note: Based on 368 impact investors that have at least one portfolio companies.

These location patterns become even more apparent when we characterize the U.S. and the non-U.S. investors who have at least one portfolio company according to the proportion of their investments that are located in the U.S.

Table 19
Proportion of Portfolio Companies in the U.S. by Impact Investor Location

Percent of Portfolio Companies located in U.S.	U.S. Impact Investors (n= 205)	non-U.S. Impact Investors (n=163)
100%	57	2
80 - 99%	73	3
60 - 79%	17	6
40 - 59%	11	6
20 - 39%	22	14
<20%	17	77
0%	8	55
Total	205	163

*as a percent of non-missing portfolio company location information

As Table 19 reveals, over a quarter of the U.S.-headquartered investors who have at least one portfolio company (57 of 205 or 28%) are exclusively investing in the U.S. Most have the majority of their portfolio invested domestically, and less than 4% (8 of 205) have no U.S. portfolio companies in their holdings.

Part 5: Evaluating Centrality of Impact to Investment Strategy

We are interested in studying impact investors whose primary mission is to invest in portfolio companies that have a positive social impact. However, there is limited consensus on how to define impact investing and who should be counted as an impact investor. Thus, we use three different strategies to uncover the importance of social impact to the overall investment strategy for the impact investors in our dataset: 1) analyzing public statements on websites to evaluate how exclusively an investor focuses on impact, 2) gathering expert opinions via a survey about investor commitment to social impact, and 3) assessing investor participation in the broader impact investing ecosystem via participation in GIIN surveys. For this paper, we relied most heavily on public statements.

5.1 Impact Investing Exclusivity via Public Statements

We examine each impact investor's website to try to ascertain whether the investor should be **under consideration** for further study. We first determine whether the type of investments made by the investor should be considered impact investments as per our screening guidelines below and then we determine whether a significant portion of its investments are focused on impact investing. For the thirteen traditional private equity firms in our database, we examine their dedicated impact investing divisions to make the determination of whether the investor should be under consideration. We locate websites for 98% of the impact investors (435 of 445).

We first read the 435 available impact investors' website home pages for a description of their investment strategies. Using the screening guidelines below, we look for descriptive words such as social, impact, environmental, economic development, revitalization,

gender/racial equality, and development of low-income areas as a first screen. The list below describes the investment strategies that we consider to be impact investing:

- “Place-Based” investment strategy: Investments in this category target an underserved area (e.g., West Virginia, Appalachian Mountains, Emerging Markets). This includes investments with job growth objectives in a specific geographic area or in a community which really “need” job growth.
- Investments that aid historically discriminated or disadvantaged individuals (i.e., minorities, women)
- Environment, Cleantech, Forestry and Green Real Estate Investments focused on sustainability
- Investment strategy that results in the Investment firms having a B-Corp Certification or Impact Investing Principles.
- Investments with an Education Mission (e.g., helping students finish their studies).
- Healthcare or biotech investments that have a target objective that goes above and beyond just focusing on profits from developing a new drug. (e.g., innovative cancer treatments to help low income families in third world countries).
- Non-profits are automatically categorized as impact investors, since they must serve the public interest in order to be registered as a non-profit.

We recognize that many firms portray their work in a positive manner, but we do not consider the following to be impact investment strategies:

- An investment strategy that makes sweeping positive claims without specific details.
 - A focus on job growth in general and not specific to a region or specific group of disadvantaged individuals.
 - A mission to solve big, general problems (eg. “make the world a better place”).
 - An emphasis on ESG investing without specific details.

- An investment strategy that solely emphasizes profit and growth.
- Organic farming without specific environmental or sustainability claims.

For the investors whose investment strategy fulfills our first step screening guidelines, we try to determine whether the investors or their dedicated impact investing divisions are exclusively or only partially focused on impact investing by reading their investment strategies and mission statements. For what we term “Under Consideration” impact investors, we look for strategies that reiterate social investment objectives in a majority of their impact fund investment strategies as well as mission statements that mention a social objective as a significant priority. We supplement this positive screen with a screen of investors’ websites to determine whether they have any significant investment activities that are not considered impact investing to distinguish investors or their impact investing divisions that are exclusively focused on impact. Lastly, we exclude from consideration investors whose original mission did not include impact investing, but later added impact investing as a strategy.

Based on this assessment, we categorize 390(88%) impact investors as under consideration and 45 (10%) impact investors as excluded from consideration.¹⁶ The fact that the vast majority of our investors are under consideration offers a validation of our original impact investor collection methodology.

While this evaluation approach yields some insights, it has a potential limitation in that published statements may be “impact washing”¹⁷ – making claims about positive

¹⁶ We were not able to categorize 10 or 2.2% of the impact investors.

¹⁷ “Impact washing” is a variant on the term “greenwashing,” a term invented by sustainability scholars to characterize firms that make marketing claims about their concerns for the environment in

environmental or social impact without seriously integrating impact goals into investment strategies.

5.2 Expert Opinions about Impact Commitment

Our second method for evaluating impact investors is based on expert opinions. We draw upon a panel of impact investing experts and use a multi-rater, multi-target evaluation survey tool to gather expert perceptions (Maetsas 2018).

Experts are given the following definition of impact investing and instructions:

Impact investing can be broadly defined as the practice of investing which takes into account both financial and non-financial objectives. Use a definition of impact investing which includes the following with respect to non-financial objectives: 1) a genuine intention of creating environmental or social impact; and 2) measurement of that impact. Please rate each impact investor based on the question below:

How committed is this investor to impact investing?

The response categories used were *Highly*, *Somewhat*, or *Not at All*. If experts were unfamiliar with a target, they had an option to indicate *Don't Know*.

This single question and our multi-rater/multi-target strategy allow us to score investors in terms of their perceived commitment to impact investing. It also allows us to construct a measure of prominence or visibility.

Gathering expert opinion data is an ongoing process. To date we have obtained 3,325 ratings from 24 experts, each of whom evaluated a minimum of 100 and as many as 412 impact investors. The impact investors rated by experts include our list of 445 and three

order to lure customers; at the same time, they obscure actual environmental harm being done by the firm.

controls: two well-known traditional venture capital funds that have no impact investing interest or experience and one impact fund from a large private equity firm. Many of the impact investors in our dataset (223 of 445) were unknown to our experts. We attribute this to two possible factors: our initial expert respondents are almost exclusively U.S.-based, and some funds may have very limited scope. We obtain at least one rating for nearly half (186 of 445) of our investors. On average, we have 2 ratings per target with a maximum of 12.

We took into account several important factors when analyzing survey results. First, there may be differences across experts' interpretations of our survey question as well as different levels of familiarity with the impact investors in our database. Second, we have an unbalanced panel of ratings because experts were exposed to different targets.

To account for differences across expert rater interpretation, different levels of familiarity, and varying target exposures we rely on a fixed effects regression framework to calculate a commitment score. We assign the commitment responses numeric values (Highly=1; Somewhat=.5, Not at all=0) and run the following linear regression:

$$\text{Commitment}_{ij} = \text{firm}_i + \text{rater}_j + \text{error}$$

where firm_i are fixed effects for the firm that we interpret as the commitment measures of a firm and rater_j are fixed effects that adjust for differences in the average awareness level of each judge. Because we only have observations for targets where an expert had been exposed, we do adjust for the number of exposures for each rater. We cluster the standard errors by rater.

The commitment scores for our impact investors range from .413 to 1.18 with a median of .929. Our median investor is "highly committed" and our minimum score is just shy of "somewhat committed," results that are consistent with our screening strategy. The

quality of expert opinion derived measures depends on having a large and diverse pool of experts to ensure that we have multiple valid ratings for each target. While we do not have enough raters or ratings to have great confidence in our measures at this early stage of data collection, we are nonetheless optimistic about the viability of this method and intend to continue to gather expert ratings.

5.3 Ecosystem Participation

Our third method for evaluating impact investors is to assess participation in the impact investing ecosystem. For the past decade, the GIIN has conducted an annual survey of impact investors and published a report summarizing the state of the industry and field. GIIN survey respondents must certify that they meet one of two inclusion criteria: 1) at least \$10 million in impact investments, and/or 2) making at least 5 impact investments (Mudaliar *et al.* 2019). Publicly participating in this annual survey is a signal to external audiences that an investor wants to be identified as a member of the impact investing community. We find that 168 of our 445 impact investors have appeared as GIIN respondents at least once over the past decade.

Interestingly, the levels of both exclusivity and commitment to impact investing vary among GIIN respondents. For the 2019 GIIN survey respondents, one third reported making both conventional and impact investments, and, within this subsample, the median directed 5% of AUM towards impact investments. At the most extreme, several large investors amongst GIIN's 2019 survey respondents directed under 1% of AUM towards impact investments (Mudaliar *et al.* 2019). For this reason, we believe that this is the least reliable of our various methods of evaluating impact investing centrality.

5.4 Impact Importance and Investment Strategy

For the remaining analyses, we rely on our exclusivity measure to characterize investors and explore differences across under-consideration and exclude-from-consideration impact investors. This is, again, a subjective assessment based on an analysis of public statements. It will be further validated and combined with other measures in future work.

As Table 20 reveals, while the Emerging Markets have a slightly higher percentage of impact investors (11%) that have other investment strategies, there is little variation by geography.

Table 20
Investor Strategy by Geography

	U.S. Impact Investors ¹		Other Dev Impact Investors		Emerging Market Impact Investors		All Impact Investors	
		%		%		%		%
Under Consideration	213*	90%	109**	84%	68	85%	390	88%
Not considered	21***	9%	15****	12%	9	11%	45	10%
N/A	2	1%	5	4%	3	4%	10	2%
Total	236		129		80		445	

¹Excludes US Virgin Island

*includes three impact investors that are part of a traditional GP

**includes one impact investor that is part of a traditional GP

*** includes four impact investors that are part of a traditional GP

****includes five impact investors that are part of a traditional GP

In Table 21, we report characteristics of investors and investments. By design, the proportion of investments made by non-profit investors as opposed to for-profit investors is much higher among the under-consideration investors (32%), compared to 0% of the nonexclusive investors. Under consideration investors are also less likely to make all equity investments (70% versus 76% for excluded from consideration). Lastly, not surprisingly,

under consideration investors are much less likely to seek market returns (61% compared to 97%).

Table 21
Investor Strategy by Legal Form, Investment Type, and Financial Objective

	Under Consideration	%	Exclude from Consideration	%	Total*
Profit	9,396	68%	2,246	100%	11,642
Non-Profit	4,434	32%	0		4,434
N/A	1	0	-		1
Total	13,831		2,246,		16,077
Equity	9,638	70%	1,703	76%	11,341
Hybrid	2,727	20%	443	20%	3,170
Non-equity	1,453	10%	99	4%	1,552
N/A	13	0.1%	1		14
Total	13,831		2,246		16,077
Market	8,504	61%	2,187	97%	10,691
Concessionary	2,741	20%	17	1%	2,758
No Return	2,539	18%	41	2%	2,580
N/A	47	0.3%	1	0	48
Total	13,831		2,246		16,077

*Note: 16,077 represents the number of unique impact investor-portfolio company investments. Excludes 277 portfolio companies that were funded by impact investors that we were not able to classify their investor strategy because websites were not available.

According to Table 22, three-quarters of the portfolio companies are associated with for-profit investors, which is closely aligned with the fact that 80% of the impact investors are for-profit. There appears to be some geographic variation, with the U.S. non-profit impact investors holding a large number of portfolio firms. Non-profit impact investors in other developed economies have relatively few holdings.

Similarly, more than two-thirds of the portfolio companies are associated with impact investors who are under consideration (71%) and almost two-thirds of the portfolio

companies (64%) are associated with impact investors who are seeking market returns.

Additional study is required to understand the drivers of these trends.

Table 22
Breakdown of Portfolio Companies by Impact Investor Classification and Location*

	U.S. Impact Investors		Other Dev. Country Impact Investors		Emerging Markets Impact Investors		All Impact Investors
		%		%		%	
Profit	6,243	61%	3,932	96%	1,467	75%	11,642
Non-Profit	4,074	39%	150	4%	210	11%	4,434
N/A	0	0%	2	0%	276	14%	278
Total	10,317		4,084		1,953		16,354
Equity	7,349	71%	2,755	67%	1,237	63%	11,341
Hybrid	1,585	15%	1,244	30%	341	17%	3,170
Non-equity	1,373	13%	80	2%	99	5%	1,552
N/A	10	0.1%	5	0.1%	276	14%	291
Total	10,317		4,084		1,953		16,354
Market	5,970	58%	3,480	85%	1,241	64%	10,691
Concessionary	2,205	21%	413	10%	140	7%	2,758
No Return	2,094	20%	189	5%	572	29%	2,855
N/A	48	0.5%	2	0.1%			50
Total	10,317		4,084		1,953		16,354
Under Consideration	8,902**	86%	3,547	87%	1,382	71%	14,100
Exclude from Consideration	1,415	14%	535	13%	296	15%	1,977
N/A	0	0%	2	0.1%	275	14%	277
Total	10,317		4,084		1,953		16,354

*Note: 16,354 represents the number of unique impact investor-portfolio company investments.

**includes 5,155 US portfolio companies.

In Table 23 below we focus on the under-consideration impact investors and provide breakdown of their portfolio companies. The patterns are similar to all impact investors, except that in the US, the portfolio companies are almost split with 54% associated with profit-oriented impact investors and 46% associated with non-profit impact investors. The type of investments is predominantly equity and most are associated with impact investors that focus on achieving market returns.

Table 23
For Under-Consideration Impact investors
Breakdown of Portfolio Companies by Impact Investor Classification and Location

	U.S. Impact Investors		Other Dev. Country Impact Investors		Emerging Markets Impact Investors		All Impact Investors
		%		%		%	
Profit	4,828	54%	3,397	96%	1,171	85%	9,396
Non-Profit	4,074	46%	150	4%	210	15%	4,434
N/A	0	0%	0	0%	1	0.0%	1
Total	8,902		3,547		1,382		13,831
Equity	6,107	69%	2,479	70%	1,052	76%	9,638
Hybrid	1,413	16%	985	28%	329	24%	2,727
Non-equity	1,373	15%	80	2%	0	0%	1,453
N/A	9	0.0%	3	0.1%	1	0%	13
Total	8,902		3,547		1,382		13,831
Market	4,572	51%	2,960	83.5%	972	70%	8,504
Concessionary	2,203	25%	398	11.2%	140	10%	2,741
No Return	2,080	23%	189	5.3%	270	20%	2,539
N/A	47	0.5%	0	0.0%			47
Total	8,902		3,547		1,382		13,831

Part 6.0: Conclusion

In this paper, we describe a new, expansive database of impact investors and their portfolio companies. We characterize impact investors according to a number of dimensions and reveal variations across locations, legal forms, and investment strategy. We demonstrate the advantages of aggregating across multiple sources in order to sharpen our perspective on an emerging field. By focusing on investment firm characteristics, such as for-profit or non-profit status, we begin to shed new light on industry segmentation. We hope this database will serve as a foundation for a follow-on body of research.

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Appendices

Appendix I: Impact Investor Database Construction Details

Appendix II. Impact Investor Coverage in Six Investment Deal Sources

Appendix III. Portfolio Companies Database Construction Details

Appendix IV. Additional Selected Tables

Appendix I: Impact Investor Database Construction Details

The construction of our list of 445 impact investors involved aggregation and checks across multiple sources, demonstrating the lack of consensus over the boundaries and players in the impact investing space. For instance, our process of including CDVCs brings in a unique set of investors as they differ from traditional VCs in that they target underserved regions -- nonmetropolitan regions and areas with historically low levels of venture capital investments. Also, Kovner and Lerner (2015) point out that CDVC investments also differ in that they are likely to be earlier stage investments within industries outside the venture capital mainstream.

Impact Investor Coverage by Six Sources

None of our six sources provides a complete list of impact investors. Tables A.1 and A.2 illustrate that each of the six sources provide a significant number of unique impact investors. Three hundred eleven (311 of the 445 or 69.9%) impact investors were provided by only one source, highlighting the importance of our multisource strategy. The remaining 134 impact investors were supplied by more than one source, with most having just two sources. None of the impact investors appear in all six sources. Only 3 impact investors appear in five sources: Bridges Fund Management, Small Enterprise Assistance Fund (SEAF), and SJF Ventures. All of these investors are among the oldest relative to other impact investors, formed between 1989 and 2002.

Table A.1
Impact Investors from a Single Source

	Count	Percent
Only ImpactBase	104	33.4%
Only Impact Asset	39	12.5%
Only Preqin	99	31.8%
Only CDVCA	33	10.6
Only ICM	22	7.1
Only 2/3 o PEI_IP_GIIN	14	4.5%
Total	311	100.0%

Table A.2
Impact Investors by Number of Sources

	Count	Percent
Impact Investors with only one source	311	69.9%
Impact Investors with two sources	80	18.0%
Impact Investors with three sources	38	8.5%
Impact Investors with four sources	13	2.9
Impact Investors with five sources	3	0.7
Impact Investors with four sources	0	0.0%
Total	445	100.0%

Table A.3
Impact Investor Overlap Between Sources

Source	Percent Overlap with					
	Impact Base	Impact Assets	Preqin	CDVCA	ICM	2/3 of PEI_IP_GIIN
Impact Base	100%	48%	41%	14%	27%	33%
Impact Assets	25%	100%	23%	16%	29%	38%
Preqin	40%	42%	100%	11%	42%	44%
CDVCA	3%	6%	2%	100%	6%	5%
ICM	6%	13%	10%	7%	100%	10%
2/3 of PEI_IP_GIIN	6%	14%	8%	5%	8%	100%
Average	16%	25%	17%	10%	23%	26%

Appendix II. Impact Investor Coverage in Six Investment Deal Sources

In this section, we provide details on matching the 445 impact investors to the six sources. From the six sources (CapIQ, Crunchbase, PitchBook, Preqin, VentureXpert, hand-collected using MTurkers), we identify at least one portfolio company for 374 (84%) of the 445 impact investors. The 71 impact investors for which we could not find any investments were primarily non-profits, lenders, fund-of-funds, and companies with more of an investment advisory role.

In Table A.4, we compare the coverage of impact investors across the six sources. Our highest yield was CapIQ which covers the most impact investors and had a 71% match or 308 out of 445. The other data sources also have high match percentages with most over 50%. VentureXpert has the lowest match with a 40% match or 174 out of 445.

From Table A.5, we see that 85% of the impact investors appear in multiple sources. This leaves 15% or 56 impact investors that are only found in one source. A breakdown of these 56 impact investors is found in Table A.6. The majority of these single-sourced impact investors are found in CapIQ, PitchBook, and via our MTurk strategy.

Table A.7 below presents the overlap between the sources. Given the high percentage of impact investors found in multiple sources, it is not surprising that the overlap between any two sources is on average greater than 68%. The highest overlap is between VentureXpert and CapIQ. Nearly all (96%) of the impact investors found in VentureXpert are also found in CapIQ.

Table A.4
Coverage of Impact Investors by Source

Source	Number of Impact Investors found in Source	% based on Total Impact Investors (445)	% based on Total Impact Investors with at least 1 PC (374)
PitchBook	298	69%	80%
Capital IQ	308	71%	82%
MTurkers	241	56%	64%
Preqin	209	48%	56%
Crunchbase	231	53%	62%
VentureXpert	174	40%	47%

Table A.5
Coverage of Impact Investors:
Number of Sources in which Impact Investor is Found

# Sources	# of Impact Investors	%
1	56	15%
2	47	13%
3	47	13%
4	47	13%
5	80	21%
6	97	26%
Total	374	100%

Table A.6
Coverage of Impact Investors with Only One Source

Source	Impact Investors	Percent
PitchBook	13	23%
Capital IQ	18	32%
MTurkers	19	34%
Preqin	3	5%
Crunchbase	3	5%
VentureXPert	0	0%
Total	56	100%

Table A.7
Overlap Coverage of Impact Investors by Six Sources

Source	Percentage Overlap with					
	PitchBook	CapIQ	MTurkers	Preqin	Crunchbase	VentureXpert
PitchBook	100%	84%	81%	92%	92%	94%
CapIQ	87%	100%	83%	94%	95%	96%
MTurkers	65%	65%	100%	76%	72%	74%
Preqin	65%	64%	66%	100%	77%	78%
Crunchbase	71%	71%	69%	85%	100%	88%
VentureXpert	55%	54%	53%	65%	66%	100%
Average	69%	67%	70%	82%	80%	86%

Appendix III. Portfolio Companies Database Construction Details

Using the six sources, our process of matching our 445 impact investors to their impact portfolio companies yielded a total of 31,520 non-unique impact investments. Given the overlaps across the sources, a portfolio company could appear as many as six times. After removing duplicates, we are left with 14,165 unique portfolio companies. A small fraction (11.3%) of the portfolio companies receive investment from at least two impact investors.

Table A.8
Number of Portfolio Companies

	PCs	Percent
Unique Source-Impact Investor-Portfolio Company	31,520	100%
Unique Impact Investor-Portfolio Company	16,354	52%
Unique Portfolio Companies	14,165	45%

Table A.9 shows the portfolio company coverage by source. PitchBook has the highest coverage with 8,031 non-unique portfolio companies, with CapIQ and our hand-collection strategy using MTurkers close behind with 7,122 and 6,230 non-unique portfolio companies, respectively.

Table A.9
Portfolio Company Coverage by Source (Non-unique)

Source	Count	Percent
PitchBook	8,031	25.5%
Capital IQ	7,122	22.6%
MTurkers	6,230	19.8%
Preqin	3,845	12.2%
Crunchbase	3,425	10.9%
VentureXPert	2,867	9.1%
Total	31,520	100.0%

Table A.10 provides a breakdown of portfolio companies by number of sources. More than half (57.3%) of our final number of unique portfolio companies were gathered from only one source, leaving 42.7% of the portfolio companies coming from multiple sources.

Table A.10
Breakdown of Unique Portfolio Companies by Number of Sources

	Count	Percent
PCs with only one source	8,111	57.3%
PCs with only two sources	2,146	15.2%
PCs with only three sources	1,443	10.2%
PCs with only four sources	1,188	8.4%
PCs with only five sources	779	5.5%
PCs with all six sources	498	3.5%
	14,165	100.0%

A finer breakdown of the portfolio companies from only one source is provided in Table A.11. The MTurk strategy provided the most individually sourced portfolio companies with 16% of the unique portfolio companies.

Table A.11
Portfolio Companies Unique to Source

	Count	% of All PC with one source	% of total Unique PCs
Only MTurkers	2,331	28.7%	16%
Only CapIQ	2,090	25.8%	15%
Only PitchBook	2,107	26.0%	15%
Only Preqin	688	8.5%	5%
Only VentureXpert	486	5.0%	3%
Only Crunchbase	409	6.0%	3%
Total	8,111	100.0%	57.3%

In addition, we see from Table A.12 that the overlap of collected portfolio companies between the sources is moderate, again highlighting the benefits of our multi-source strategy.

The highest overlap is between Crunchbase and PitchBook with 74% of Crunchbase’s portfolio companies also found in PitchBook. The average overlap between any two sources is less than 55%.

Table A.12
Portfolio Company Overlap Between Six Sources

Source	Percent Overlap with					
	PitchBook	CapIQ	MTurkers	Preqin	Crunchbase	VentureX
PitchBook	100%	52%	47%	65%	74%	65%
CapIQ	50%	100%	43%	61%	61%	63%
MTurkers	39%	37%	100%	45%	55%	40%
Preqin	32%	32%	27%	100%	49%	53%
Crunchbase	33%	29%	30%	45%	100%	41%
VentureXpert	25%	26%	18%	41%	35%	100%
Average	36%	35%	33%	51%	55%	52%

Together these tables document the value of our multi-source strategy for developing a comprehensive database of impact investments matched to impact investors.

Appendix IV. Additional Selected Tables

The tables below provide more detailed information on impact investor location and place of incorporation.

Table A.13
U.S. Impact Investors by State of Headquarters

State	#	%
California	52	22.0%
New York	43	18.2%
Massachusetts	17	7.2%
District Of Columbia	13	5.5%
Maryland	9	3.8%
Illinois	9	3.8%
Colorado	7	3.0%
Texas	6	2.5%
Washington	6	2.5%
Georgia	6	2.5%
Pennsylvania	5	2.1%
Connecticut	5	2.1%
Michigan	4	1.7%
Wisconsin	4	1.7%
Ohio	4	1.7%
Minnesota	4	1.7%
Tennessee	3	1.3%
West Virginia	3	1.3%
Oregon	3	1.3%
Florida	3	1.3%
Maine	3	1.3%
Missouri	3	1.3%
New Hampshire	3	1.3%
North Carolina	3	1.3%
Utah	2	0.8%
Kentucky	2	0.8%
Oklahoma	2	0.8%
Vermont	2	0.8%
Arkansas	1	0.4%
South Dakota	1	0.4%
Hawaii	1	0.4%
North Dakota	1	0.4%
Virginia	1	0.4%
Arizona	1	0.4%
Louisiana	1	0.4%
New Mexico	1	0.4%
South Carolina	1	0.4%
Montana	1	0.4%
Total	236	100.0%

Table A.14
Breakdown of Impact Investors by Country

Country	Count	Percent
United States	236	53.0%
United Kingdom	31	7.0%
Switzerland	18	4.0%
India	15	3.4%
Netherlands	14	3.1%
France	12	2.7%
Australia	9	2.0%
Singapore	9	2.0%
Canada	9	2.0%
South Africa	9	2.0%
Germany	7	1.6%
Luxembourg	6	1.3%
Mexico	6	1.3%
Spain	5	1.1%
Mauritius	3	0.7%
Nigeria	3	0.7%
Kenya	3	0.7%
Denmark	2	0.4%
Hong Kong	2	0.4%
Belgium	2	0.4%
Austria	2	0.4%
Ireland	2	0.4%
Brazil	2	0.4%
Tanzania	2	0.4%
Malaysia	2	0.4%
Cayman Islands	2	0.4%
Costa Rica	2	0.4%
Italy	1	0.2%
Finland	1	0.2%
United States Virgin Islands	1	0.2%
Chile	1	0.2%
China	1	0.2%
Sweden	1	0.2%
Norway	1	0.2%
Israel	1	0.2%
Russia	1	0.2%

Table A.14 (cont.)
Breakdown of Impact Investors by Country

Country	Count	Percent
South Korea	1	0.2%
Zimbabwe	1	0.2%
Ghana	1	0.2%
Nicaragua	1	0.2%
Cambodia	1	0.2%
Rwanda	1	0.2%
Jordan	1	0.2%
Ethiopia	1	0.2%
Uganda	1	0.2%
Georgia	1	0.2%
New Zealand	1	0.2%
Panama	1	0.2%
Colombia	1	0.2%
Botswana	1	0.2%
United Arab Emirates	1	0.2%
Portugal	1	0.2%
Senegal	1	0.2%
Argentina	1	0.2%
South Africa.	1	0.2%
Vietnam	1	0.2%
Zambia	1	0.2%
Total	445	100.0%

Table A.15
Locating Company State of Incorporation

	Companies Dropped	Remaining
Starting sample		14,165
Drop non-matches with Capital IQ	2,659	11,506
Drop missing country of incorp.	4,256	7,250
Drop non-US companies	2,984	4,266
Drop missing state of incorp.	192	4,074

Table A.16
U.S. Portfolio Company State of Incorporation

State of Incorporation	Count	Percent
Delaware	2,654	62.2%
California	258	6.0%
New York	96	2.3%
Colorado	70	1.6%
Massachusetts	61	1.4%
Texas	55	1.3%
Pennsylvania	50	1.2%
Michigan	48	1.1%
Maine	43	1.0%
Minnesota	42	1.0%
Maryland	41	1.0%
Illinois	41	1.0%
Florida	38	0.9%
Nevada	38	0.9%
Washington	38	0.9%
Missouri	37	0.9%
West Virginia	36	0.8%
Louisiana	33	0.8%
Ohio	31	0.7%
North Carolina	29	0.7%
Georgia	28	0.7%
Rest of the U.S.	307	7.2%
Missing	192	4.5%
Total	4,266	100%

Table A.17
Breakdown of U.S. Portfolio Companies by State Headquarters

U.S. State	Count	Percent
California	1,657	26.8%
New York	565	9.2%
Massachusetts	522	8.5%
Missing State	279	4.5%
Colorado	258	4.2%
Texas	231	3.7%
Illinois	168	2.7%
Michigan	150	2.4%
Florida	142	2.3%
District Of Columbia	135	2.2%
Washington	128	2.1%
Pennsylvania	123	2.0%
Maryland	121	2.0%
Louisiana	101	1.6%
Ohio	99	1.6%
Georgia	98	1.6%
Minnesota	97	1.6%
Maine	91	1.5%
New Jersey	91	1.5%
Virginia	90	1.5%
Connecticut	88	1.4%
Missouri	85	1.4%
North Carolina	85	1.4%
West Virginia	67	1.1%
Oregon	64	1.0%
Tennessee	62	1.0%
Utah	56	0.9%
Arizona	50	0.8%
New Hampshire	40	0.6%
Wisconsin	38	0.6%
Indiana	37	0.6%
Kentucky	37	0.6%
Alabama	36	0.6%
Arkansas	35	0.6%
Nevada	33	0.5%
Vermont	24	0.4%
Mississippi	21	0.3%

Table A.17 (cont.)
Breakdown of U.S. Portfolio Companies by State Headquarters

U.S. State	Count	Percent
Kansas	20	0.3%
New Mexico	20	0.3%
South Carolina	19	0.3%
Delaware	15	0.2%
South Dakota	13	0.2%
Oklahoma	12	0.2%
Rhode Island	12	0.2%
Nebraska	10	0.2%
Hawaii	9	0.1%
Idaho	8	0.1%
Iowa	8	0.1%
Wyoming	8	0.1%
Montana	7	0.1%
North Dakota	6	0.1%
Alaska	2	0.0%
Total	6,173	100.0%

Here we provide information on company type and company status. Our goal is to further investigate these two areas by merging with other sources to verify the data collected from CapIQ.

Table A.18
Company Type

Company Type	Number	%
Private Company	10,125	71.5%
Missing Company Type	2,681	18.9%
Public Company	528	3.7%
Private Investment Firm	303	2.1%
Assets/Products	276	1.9%
Educational Institution	87	0.6%
Foundation/Charitable Institution	79	0.6%
Private Fund	30	0.2%
Government Institution	21	0.1%
Public Fund	15	0.1%

**Table A.18 (cont.)
Company Type**

Company Type	Number	%
Financial Service Investment Arm	8	0.1%
Public Investment Firm	6	0.0%
Corporate Investment Arm	5	0.0%
Trade Association	5	0.0%
Labor Union	2	0.0%
Total	14,165	100%

**Table A.19
Company Operating Status**

Company Status	Count	%
Operating	8,570	60.5%
Missing Company Status	2,681	18.9%
Operating Subsidiary	2,068	14.6%
Acquired	568	4.0%
Out of Business	184	1.3%
Liquidating	44	0.3%
Reorganizing	25	0.2%
Final Close	9	0.1%
First Close	8	0.1%
No Longer Investing	5	0.0%
Fully Invested	1	0.0%
Launched	1	0.0%
Secondary Close	1	0.0%
Total	14,165	100.0%

Table A.20

Breakdown of Portfolio Company Sub-Industry Group by Location

Industry Classification	US Impact Investors		Other Developed Market Impact Investors		Emerging Market Impact Investors		Total		
	#	% non-missing	#	% non-missing	#	% non-missing	#	% non-missing	% of Total
Entertainment Interactive Media and Services	82	1.4%	42	1.6%	35	1.2%	159	1.4%	1.1%
Media	259	4.5%	117	4.5%	104	3.4%	480	4.2%	3.4
Media and Entertainment	<u>107</u>	<u>1.8%</u>	<u>56</u>	<u>2.2%</u>	<u>43</u>	<u>1.4%</u>	<u>206</u>	<u>1.8%</u>	<u>1.4%</u>
Diversified Telecommunication Services	448	7.7%	215	8.3%	182	6.0%	845	7.4%	6.0%
Wireless Telecommunication Services	43	0.7%	16	0.6%	31	1.0%	90	0.8%	0.6%
Telecommunication Services	<u>16</u>	<u>0.3%</u>	<u>11</u>	<u>0.4%</u>	<u>14</u>	<u>0.5%</u>	<u>41</u>	<u>0.4%</u>	<u>0.3%</u>
	59	1.0%	27	1.0%	45	1.5%	131	1.1%	0.9%
Total Communication services	507	8.7%	242	9.4%	227	7.4%	976	8.5%	6.9%
Auto Components	33	0.6%	14	0.5%	5	0.2%	52	0.5%	0.4%
Automobiles	21	0.4%	13	0.5%	12	0.4%	46	0.4%	0.3%
Automobiles and Components	54	0.9%	27	1.0%	17	0.6%	98	0.9%	0.7%
Household Durables	79	1.4%	33	1.3%	37	1.2%	149	1.3%	1.1%
Leisure Products Textiles, Apparel and luxury goods	31	0.5%	8	0.3%	6	0.2%	45	0.4%	0.3%
Consumer Durables and Apparel	<u>11</u>	<u>0.2%</u>	<u>0</u>	<u>0.0%</u>	<u>2</u>	<u>0.1%</u>	<u>13</u>	<u>0.1%</u>	<u>0.1%</u>
	121	2.1%	41	1.6%	45	1.5%	207	1.8%	1.5%
Diversified Consumer Services	200	3.4%	63	2.4%	93	3.0%	356	3.1%	2.5%
Hotels, Restaurants and Leisure	80	1.4%	40	1.5%	56	1.8%	176	1.5%	1.2%
Consumer Services	280	4.8%	103	4.0%	149	4.9%	532	4.6%	3.8%
Distributors Internet and Direct Marketing Retail	94	1.6%	36	1.4%	52	1.7%	182	1.6%	1.3%
Multiline Retail	84	1.4%	56	2.2%	60	2.0%	200	1.7%	1.4%
Specialty Retail	0	0.0%	2	0.1%	0	0.0%	2	0.0%	0.0%
Retailing	<u>29</u>	<u>0.5%</u>	<u>18</u>	<u>0.7%</u>	<u>25</u>	<u>0.8%</u>	<u>72</u>	<u>0.6%</u>	<u>0.5%</u>
	207	3.6%	112	4.3%	137	4.5%	450	4.0%	3.2%
Total Consumer discretionary	662	11.4%	283	10.9%	348	11.4%	1293	11.3%	9.1%

Table A.20 (cont'd)

Breakdown of Portfolio Company Sub-Industry Group by Location

Industry Classification	US Impact Investors		Other Developed Market Impact Investors		Emerging Market Impact Investors		Total		
	#	% non-missing	#	% non-missing	#	% non-missing	#	% non-missing	% of Total
Food and Staples Retailing	36	0.6%	25	1.0%	49	1.6%	110	1.0%	0.8%
Beverages	37	0.6%	9	0.3%	21	0.7%	67	0.6%	0.5%
Food Products	177	3.0%	81	3.1%	244	8.0%	502	4.4%	3.6%
Tobacco	<u>6</u>	<u>0.1%</u>	<u>9</u>	<u>0.3%</u>	<u>5</u>	<u>0.2%</u>	<u>20</u>	<u>0.2%</u>	<u>0.1%</u>
Food, Beverage and Tobacco	220	3.8%	99	3.8%	270	8.8%	589	5.1%	4.2%
Household Products	17	0.3%	4	0.2%	14	0.5%	35	0.3%	0.2%
Personal Products	<u>40</u>	<u>0.7%</u>	<u>9</u>	<u>0.3%</u>	<u>18</u>	<u>0.6%</u>	<u>67</u>	<u>0.6%</u>	<u>0.5%</u>
Household and Personal Products	57	1.0%	13	0.5%	32	1.0%	102	0.9%	0.7%
Total Consumer staples	313	5.4%	137	5.3%	351	11.5%	801	7.0%	5.7%
Energy Equipment and Services	24	0.4%	15	0.6%	7	0.2%	46	0.4%	0.3%
Oil, Gas and Consumable Fuels	40	0.7%	50	1.9%	38	1.2%	128	1.1%	0.9%
Total Energy	64	1.1%	65	2.5%	45	1.5%	174	1.5%	1.2%
Banks Thrifts and Mortgage Finance	45	0.8%	11	0.4%	124	4.1%	180	1.6%	1.3%
Finance	<u>13</u>	<u>0.2%</u>	<u>4</u>	<u>0.2%</u>	<u>9</u>	<u>0.3%</u>	<u>26</u>	<u>0.2%</u>	<u>0.2%</u>
Banks	58	1.0%	15	0.6%	133	4.4%	206	1.8%	1.5%
Capital Markets	225	3.9%	101	3.9%	89	2.9%	415	3.6%	2.9%
Consumer Finance	39	0.7%	12	0.5%	137	4.5%	188	1.6%	1.3%
Diversified Financial Services	<u>51</u>	<u>0.9%</u>	<u>32</u>	<u>1.2%</u>	<u>234</u>	<u>7.7%</u>	<u>317</u>	<u>2.8%</u>	<u>2.2%</u>
Diversified Financials	315	5.4%	145	5.6%	460	15.1%	920	8.0%	6.5%
Insurance	30	0.5%	16	0.6%	29	0.9%	75	0.7%	0.5%
Total Financials	403	6.9%	176	6.8%	622	20.4%	1201	10.5%	8.5%

Table A.20 (cont'd)

Breakdown of Portfolio Company Sub-Industry Group by Location

Industry Classification	US Impact Investors		Other Developed Market Impact Investors		Emerging Market Impact Investors		Total		
	#	% non-missing	#	% non-missing	#	% non-missing	#	% non-missing	% of Total
Health Care									
Equipment and Supplies	213	3.7%	58	2.2%	26	0.9%	297	2.6%	2.1%
Health Care Providers and Services	138	2.4%	66	2.6%	105	3.4%	309	2.7%	2.2%
Health Care Technology	<u>173</u>	<u>3.0%</u>	<u>45</u>	<u>1.7%</u>	<u>39</u>	<u>1.3%</u>	<u>257</u>	<u>2.2%</u>	<u>1.8%</u>
Health Care Equipment and Services	524	9.0%	169	6.5%	170	5.6%	863	7.5%	6.1%
Biotechnology	284	4.9%	49	1.9%	6	0.2%	339	3.0%	2.4%
Life Sciences Tools and Services	94	1.6%	22	0.9%	19	0.6%	135	1.2%	1.0%
Pharmaceuticals	<u>168</u>	<u>2.9%</u>	<u>43</u>	<u>1.7%</u>	<u>47</u>	<u>1.5%</u>	<u>258</u>	<u>2.3%</u>	<u>1.8%</u>
Pharmaceuticals, Biotechnology and Life Sciences	546	9.4%	114	4.4%	72	2.4%	732	6.4%	5.2%
Total Health Care	1070	18.4%	283	10.9%	242	7.9%	1595	13.9%	11.3%
Aerospace and Defense	26	0.4%	3	0.1%	2	0.1%	31	0.3%	0.2%
Building Products	46	0.8%	32	1.2%	18	0.6%	96	0.8%	0.7%
Construction and Engineering	7	0.1%	2	0.1%	7	0.2%	16	0.1%	0.1%
Electrical Equipment	151	2.6%	87	3.4%	44	1.4%	282	2.5%	2.0%
Industrial Conglomerates	0	0.0%	1	0.0%	6	0.2%	7	0.1%	0.0%
Machinery	102	1.8%	68	2.6%	46	1.5%	216	1.9%	1.5%
Trading Companies and Distributors	<u>52</u>	<u>0.9%</u>	<u>21</u>	<u>0.8%</u>	<u>41</u>	<u>1.3%</u>	<u>114</u>	<u>1.0%</u>	<u>0.8%</u>
Total Capital goods	384	6.6%	214	8.3%	164	5.4%	762	6.7%	5.4%
Commercial Services and Supplies	190	3.3%	98	3.8%	87	2.8%	375	3.3%	2.6%
Professional Services	<u>89</u>	<u>1.5%</u>	<u>61</u>	<u>2.4%</u>	<u>50</u>	<u>1.6%</u>	<u>200</u>	<u>1.7%</u>	<u>1.4%</u>
Total Commercial and Professional Services	279	4.8%	159	6.2%	137	4.5%	575	5.0%	4.1%
Air Freight and Logistics	10	0.2%	7	0.3%	14	0.5%	31	0.3%	0.2%
Airlines	18	0.3%	25	1.0%	17	0.6%	60	0.5%	0.4%
Marine	17	0.3%	9	0.3%	10	0.3%	36	0.3%	0.3%
Road and Rail	62	1.1%	40	1.5%	61	2.0%	163	1.4%	1.2%
Transportation Infrastructure	<u>5</u>	<u>0.1%</u>	<u>5</u>	<u>0.2%</u>	<u>24</u>	<u>0.8%</u>	<u>34</u>	<u>0.3%</u>	<u>0.2%</u>
Total Transportation	112	1.9%	86	3.3%	126	4.1%	324	2.8%	2.3%
Industrials	775	13.3%	459	17.8%	427	14.0%	1661	14.5%	11.7%

Table A.20 (cont'd)
Breakdown of Portfolio Company Sub-Industry Group by Location

Industry Classification	US Impact Investors		Other Developed Market Impact Investors		Emerging Market Impact Investors		Total		
	#	% non-missing	#	% non-missing	#	% non-missing	#	% non-missing	% of Total
Semiconductors and Semiconductor Equipment	120	2.1%	59	2.3%	18	0.6%	197	1.7%	1.4%
IT Services	137	2.4%	58	2.2%	103	3.4%	298	2.6%	2.1%
Software	<u>983</u>	<u>16.9%</u>	<u>357</u>	<u>13.8%</u>	<u>234</u>	<u>7.7%</u>	<u>1574</u>	<u>13.7%</u>	<u>11.1%</u>
Software and Services	1120	19.3%	415	16.1%	337	11.0%	1872	16.3%	13.2%
Communications Equipment	80	1.4%	27	1.0%	27	0.9%	134	1.2%	0.9%
Electronic Equipment, Instruments and Components	202	3.5%	98	3.8%	64	2.1%	364	3.2%	2.6%
Technology Hardware, Storage and Peripherals	<u>32</u>	<u>0.6%</u>	<u>8</u>	<u>0.3%</u>	<u>16</u>	<u>0.5%</u>	<u>56</u>	<u>0.5%</u>	<u>0.4%</u>
Technology Hardware and Equipment	314	5.4%	133	5.1%	107	3.5%	554	4.8%	3.9%
Total Information technology	1554	26.7%	607	23.5%	462	15.1%	26233	22.9%	18.5%
Chemicals	85	1.5%	38	1.5%	29	0.9%	152	1.3%	1.1%
Construction									
Materials	46	0.8%	28	1.1%	37	1.2%	111	1.0%	0.8%
Containers and Packaging	22	0.4%	10	0.4%	14	0.5%	46	0.4%	0.3%
Metals and Mining	33	0.6%	27	1.0%	15	0.5%	75	0.7%	0.5%
Paper and Forest Products	<u>28</u>	<u>0.5%</u>	<u>14</u>	<u>0.5%</u>	<u>35</u>	<u>1.1%</u>	<u>77</u>	<u>0.7%</u>	<u>0.5%</u>
Materials	214	3.7%	117	4.5%	130	4.3%	461	4.0%	3.3%
Total Materials	214	3.7%	117	4.5%	130	4.3%	461	4.0%	3.3%
Equity Real Estate Investment Trusts (REITs)	5	0.1%	0	0.0%	2	0.1%	7	0.1%	0.1%
Real Estate Management and Development	<u>184</u>	<u>3.2%</u>	<u>77</u>	<u>3.0%</u>	<u>47</u>	<u>1.5%</u>	<u>308</u>	<u>2.7%</u>	<u>2.2%</u>
Real Estate	189	3.3%	77	3.0%	49	1.6%	315	2.8%	2.2%
Total Real Estate	189	3.3%	77	3.0%	49	1.6%	315	2.8%	2.2%
Electric Utilities	5	0.1%	16	0.6%	39	1.3%	60	0.5%	0.4%
Gas Utilities	1	0.0%	0	0.0%	3	0.1%	4	0.0%	0.0%
Independent Power and Renewable Electricity Producers	40	0.7%	97	3.8%	94	3.1%	231	2.0%	1.6%
Multi-Utilities	5	0.1%	22	0.9%	2	0.1%	29	0.3%	0.2%
Water Utilities	<u>10</u>	<u>0.2%</u>	<u>4</u>	<u>0.2%</u>	<u>14</u>	<u>0.5%</u>	<u>28</u>	<u>0.2%</u>	<u>0.2%</u>
Utilities	61	1.1%	139	5.4%	152	5.0%	352	3.1%	2.5%

Total Utilities	61	1.1%	139	5.4%	152	5.0%	352	3.1%	2.5%
Total Non-missing	5,812		2,585		3,055		11,452		
Missing	361		251		2,01		2,713		
Total	6,173		2,836		5,156		11,454		