THE FINANCIAL PERFORMANCE OF IMPACT INVESTING THROUGH PRIVATE DEBT

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symbiotics

GIIN

GLOBAL IMPACT INVESTING NETWORK

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1. MOTIVATION & BACKGROUND

Impact investments—investments made into companies, organizations, and funds with the intention of generating social or environmental impact (or both) alongside financial return — are vital to addressing a range of global challenges, including slowing and mitigating climate change, ending poverty and hunger, and achieving gender equality in both emerging and developed markets. In addition to pursuing their impact goals, impact investments also offer promising market opportunities for investors across the risk–return spectrum.

As of December 2016, a sample of 208 surveyed impact investors, allocating capital to various geographies, sectors, and asset classes and seeking a range of returns from below-market to above-market, managed USD 114 billion in impact investing assets.[1] Assets under management (AUM) among existing impact investors have recently been growing at an estimated 18% compound annual growth rate (CAGR), with new investors also steadily entering the field.[2]

Driving this growing interest, in part, are the Sustainable Development Goals (SDGs), launched by the United Nations (UN) in 2015 to target improvements in a wide range of social and environmental issues by the year 2030. Meeting these goals will require an estimated USD 2.4 trillion or more in investment capital over the coming decade.[3] While the impact investing market has shown robust growth, the need for exponential expansion is critical.

Industry growth will require, among other factors, rigorous data on the financial performance of impact investments. Evidence regarding such financial performance has recently begun to expand,[4] evidence to which this report contributes. Private debt or fixed income is the largest asset class in impact investing, accounting for 34% of impact investors' reported AUM, followed by real assets (22%) and private equity (19%).[5] The Global Impact Investing Network (GIIN) and Symbiotics have partnered for this report to analyze in aggregate the performance of impact investing through private debt.

Impact investing funds that use private debt vary by sector and geography. Seeking to reflect this reality, the report includes two distinct chapters. This chapter focuses on *Private Debt Impact Funds (PDIFs)* in various sectors and markets. These funds have varying capital structures, but mostly rely on equity and debt capital from investors such as pension funds, foundations, banks, or public sector funders. A second separate chapter considers *Community Development Loan Funds (CDLFs)*, which invest exclusively in the United States and rely on both private funding and grant.

The key analyses in this report will be updated annually—both with new, yearly data from existing funds and with data from the incorporation of new funds—to continually enhance their quality and maintain their relevance.

1   Abhilash Mudaliar, Hannah Schiff, Rachel Bass, and Hannah Dithrich, 2017 Annual Impact Investor Survey (New York: Global Impact Investing Network, 2017), xi, https://thegiin.org/research/publication/annualsurvey2017
2   Abhilash Mudaliar, Aliana Pineiro, and Rachel Bass, Impact Investing Trends: Evidence of a Growing Industry (New York: Global Impact Investing Network, December 2016), 5, https://thegiin.org/research/publication/impact-investing-trends.
3   Business & Sustainable Development Commission, Better Business, Better World (London: 2017), 16, http://report.businesscommission.org/.
4   Abhilash Mudaliar and Rachel Bass, GIIN Perspectives: Evidence on the Financial Performance of Impact Investments (New York: Global Impact Investing Network, November 2017), https://thegiin.org/research/publication/financial-performance.
5   Mudaliar et al., 2017 Annual Impact Investor Survey, 25.

1.1 METHODOLOGY

1.1.1 Sample

PDIFs considered in this report are mostly for-profit and invest in developed and emerging markets.

Results on samples of fewer than three funds are not shared here in order to protect anonymity.

1.1.2 Inclusion Criteria

This report focuses only on independent investment vehicles that allocate on average more than 85% of their portfolios to private debt, target and measure social or environmental impact objectives (or both), target positive returns to investors, and manage capital from multiple investors.

Table 1
Inclusion Criteria

Criteria	Included	Excluded
Impact	Intention/mission to generate social and environmental impact alongside a financial return.	No clear intention/mission to generate social and environmental impact alongside a financial return.
Status	Independent Investment Vehicles	
Investors	Open to multiple investors	Open to single investor
Fixed Income Investments	≥85% on average for five years	>15% equity; fund of funds
Investment Portfolio	≥50% of non-cash assets	<50% of non-cash assets
Audited or Unaudited Financial Statements	Available	Not available

1.1.3 Source

PDIFs were identified through various networks and databases, including the GIIN's ImpactBase database, ImpactAssets 50, LuxFlag, Fundpeak, and the Symbiotics databases of microfinance and small and medium enterprise (SME) funds.

1.1.4 Data Accuracy

Participants submitted annual audited or unaudited financial statements for the past one to five fiscal years (that is, 2012–2016), from which the Research Team standardized financial performance calculations as follows.

› **Extrapolation:** While most funds end their fiscal years on December 31, others operate on a different cycle. To enable comparison, their data were extrapolated accordingly as of December 31.

› **Exchange rates:** Most metrics, including growth calculations, were determined using end-of-year exchange rates.

› **Outliers:** Since this study focuses on patterns of return, the Research Team identified outliers only for sub-sections of the 'Financial Performance Breakdown' chapter. Outliers were were defined as values amounting to three standard deviations above or below the mean of a particular metric. All figures in these sections include outliers. However, where helpful, the main text presents the results both including and excluding outliers.

› **Valuation methods:** Given the studied time frame of five years, the report presents no review of different funds' accounting methods, such as historical cost versus fair value, since these do not greatly impact the final performance figures.

Additionally, all PDIFs included in the sample completed a brief survey to provide supplemental background information on the financial and legal structure of their respective funds, target investment areas, impact themes, and geographic reach. The Research Team followed up with funds individually to ensure the accuracy of the supplied information.

1.1.5 Performance Calculation

The Research Team computed PDIF'S performance based on the growth of Net Asset Value (NAV) per share, that is, net assets (assets net of liabilities) divided by the number of shares outstanding. This methodology gives the most accurate results in terms of fund performance. However, NAV per share information is not always available in funds' financial statements because most regulators do not require reporting on this metric. In such cases where critical NAV per share information was missing for a given fund, the Research Team approximated its NAV per share growth by using primary financial statement data. Results based on this latter methodology will slightly differ from the NAV per share growth methodology, namely because information on the timing of cash flows related to share subscriptions and redemptions is not available in funds' financial statements. Thus, results presented in sections 2.5 A, B, C, D and E differ from the results presented in figures 12 and 13 ('Financial Performance Breakdown'), the latter figures being computed exclusively based on funds' annual reports.

Further, for multi-currency funds that offer share classes in currencies other than the fund's accounting currency, the Research Team approximated the unrealized foreign exchange variation against the USD for these respective currencies (mainly EUR and CHF share classes) in order to extrapolate missing information on unrealized foreign exchange gains or losses from the funds' annual financial statements. The figures for return volatility shown in the report were calculated by considering the volatility of each respective sub-sample's (e.g., sector, hedging strategy) weighted performance.

1.1.6 Regions and Sectors

Breakdowns by region and investment sector used for PDIFs are derived from recognized definitions from the World Bank and the GIIN, respectively (Tables 2 and 3).

Table 2
List of Regions (World Bank Classification, 2017)

Regions
1 East Asia & Pacific
2 Europe & Central Asia
3 Latin America & the Caribbean
4 Middle East & North Africa
5 North America
6 South Asia
7 Sub-Saharan Africa

1.1.7 Selection of Impact Profiles

While the central objective of this report is to assess the financial performance of impact investing funds that provide loans to financial intermediaries or lend directly to projects and companies, several profiles showcase the approaches to impact measurement and management of typical funds in each sample. PDIF's impact profiles include one Financial Services fund, one Agriculture fund, and one Multi-sector fund.

Table 3
List of Sectors

GIIN Classification
1 Education
2 Energy
3 Financial Services (incl. Microfinance)
4 Food & Agriculture
5 Healthcare
6 Housing
7 Information and Communication Technologies
8 Water, Sanitation and Hygiene
9 Multi-sector

2. PRIVATE DEBT IMPACT FUNDS

2.1 BUSINESS MODEL

PDIFs are independent investment structures differentiated by their legal status and distribution (public or private), investment sector, and geographies, all factors that ultimately affect their business models. Most funds (all but four) in this sample are for-profit. Most invest indirectly in end clients through financial intermediaries, mostly non-investment-grade institutions, while a few invest directly in projects and companies.

All but two funds specialize in investments in emerging markets, with an average portfolio maturity of 4.5 years. Impact objectives include economic development for low-income communities, increased access to financing for micro, small, and medium-sized enterprises, and the financial needs of smallholder farmers, among others.

PDIFs are managed by specialized investment management companies that have developed labor-intensive business models by internalizing the full investment value chain, from data collection and monitoring of investees to evaluation of credit risk and pipeline management. Thus, these investment management firms represent a primary gateway for international investors who are interested in entering the impact investing space. The PDIFs included in this study are managed and advised by 27 investment managers based primarily in Europe and North America.

Funding for these PDIFs is sourced from different types of investors (public, private, retail, and high-net-worth individuals), either by issuing shares with varying subscription and redemption periods or by raising debt capital from which investors can generally expect a fixed-income return.

PDIFs invest in Financial Services (including Microfinance), Multi-sector, and Other sectors (including Arts and Culture, Education, Energy, and Food and Agriculture).

2.2 SAMPLE SNAPSHOT

The team identified 166 Private Debt Impact Funds that met our inclusion criteria, out of which 50 funds participated.

50
PRIVATE DEBT
IMPACT FUNDS

30%
PARTICIPATION
RATE

Table 4 lists the total number of participating PDIFs by year for which data was gathered. Most PDIFs provided four to five fiscal years of relevant financial statements.

Table 4
Number of Participating Funds by Year

Year	Number of Funds
2012	31
2013	37
2014	41
2015	48
2016	46

The PDIF sample mainly comprises funds that invest in Financial Services, including Microfinance, largely in emerging markets. Eight funds focus primarily in other sectors, including Arts and Culture, Education, Energy, and Food and Agriculture (in 'Other' Table 5).

Table 5
Main Investment Sector

Year	50%+ in Financial Services	50%+ in Other	Multi-Sector
2012	22	6	3
2013	27	7	3
2014	29	7	5
2015	34	8	6
2016	37	7	2

On average, one-third of PDIFs use leverage amounting to a maximum of one-fourth of total assets (Table 6).

Table 6
Levered versus Unlevered Funds

Year	Unlevered Number of Funds	Levered Number of Funds	Leverage Ratio
2012	22	9	24%
2013	25	12	20%
2014	29	12	21%
2015	33	15	18%
2016	30	16	17%

Nearly 40% of the sample is fully hedged, six funds are fully unhedged, and the remainder are partially hedged. Two funds invest only in USD.

Most respondents are private, for-profit funds and thus target risk-adjusted, market-rate returns. However, some nonprofit (five) and a few for-profit funds (eight) seek below-market-rate returns (either closer to capital preservation or closer to market-rate returns).

2.3 ASSET SIZE

2.3.1 Total Asset Growth

The total sample of PDIFs comprised USD 10.6 billion in assets as of December 2016, up from USD 6 billion in December 2012. This implies a CAGR of 15% between the two observations. However, this growth is partly explained by a higher sample size (n=46 in December 2016; n=31 in December 2012). Removing the effect of sample size, analysis of a constant sample of 29 funds between 2012 and 2016 gives a CAGR of 11.2%, a figure that better reflects the growth of the market.
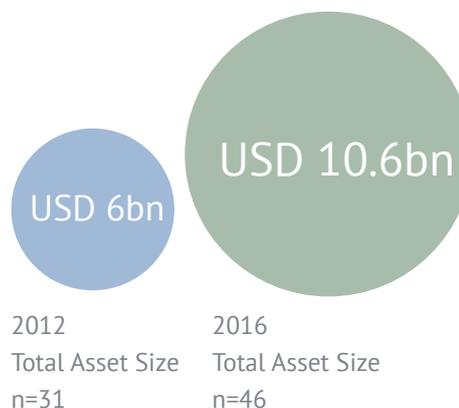
Over the past five years, the average size of PDIFs remained stable at around USD 200 million (Figure 1), growing by 2% per annum (CAGR). The range of funds' size is quite broad, with minimum assets of USD 3.5 million and maximum assets of USD 1.3 billion for 2016. On average, funds seeking risk-adjusted, market-rate returns are four to five times larger than funds seeking below-market returns. Levered funds average USD 232 million in assets, and unlevered funds average USD 147 million.

USD 6bn

2012
Total Asset Size
n=31

USD 10.6bn

2016
Total Asset Size
n=46

By sector, Multi-sector funds registered the highest average growth, driven mainly by one fund's growth (102% including outliers; 46% without outliers) and notably starting from a much lower base than the other sectors. Financial Services (16% of funds) registered the second-highest average growth.

Figure 1

Assets Under Management, Distribution of Sample

USD millions

2.3.2 By Place of Incorporation

PDIFs are incorporated in various countries, most in Luxembourg (62% by size and 46% by number of funds). The Netherlands is the second-most-common place of incorporation in terms of volume (26%), while the United States is second in terms of number of funds (24%) and third in terms of total volume (8%).

2.3.3 By Vintage Year

Most PDIFs in the sample (30 out of 50) have a long track record (six years or more; Figure 3). PDIFs in the Financial Services sector tend to have the longest track records. However, the overall sample is relatively new; nearly two-thirds of funds are younger than 10 years.

Figure 3
Age of Funds

- 0-5 Years
- 6-10 Years
- >10 Years
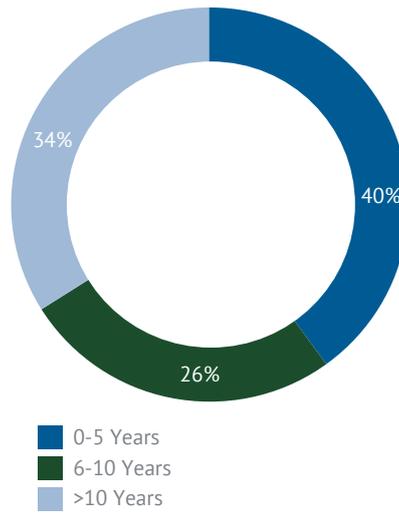
Figure 2
Average Assets Under Management by Sector [6]
USD millions

— Financial Services (CAGR: 16%)
— Multi-sector (CAGR: 102%)
— Other (CAGR: 6.6%)
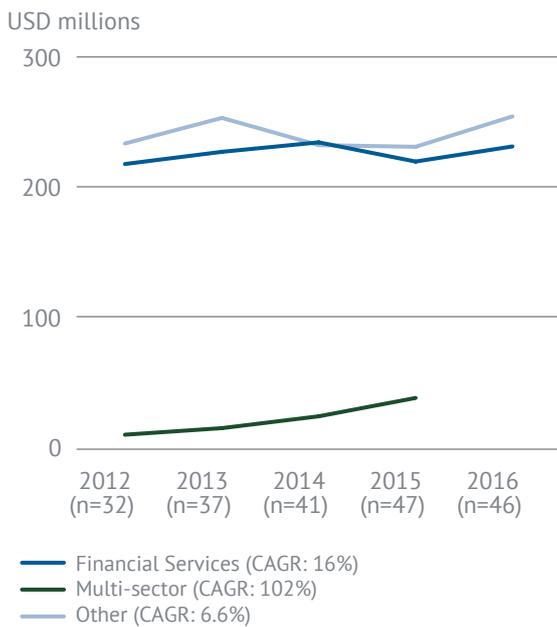
Figure 4
Total Assets by Sector
% of Total Assets

■ Financial Services (including Microfinance)
■ Multi-sector
■ Other
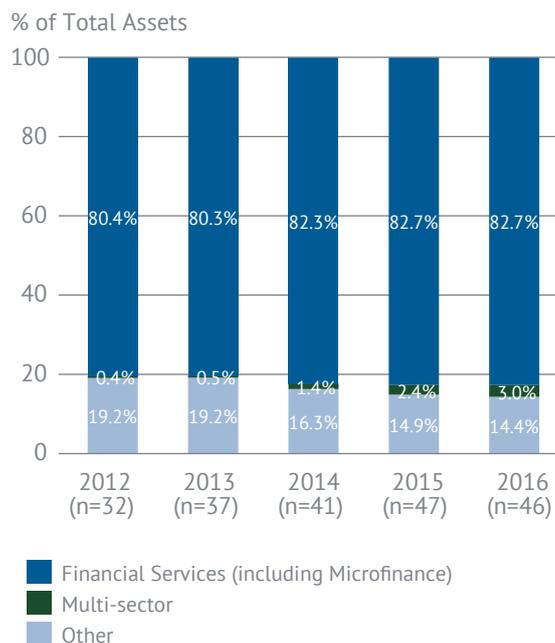
6   Due to a small sample size of funds in this category, metrics for Multi-sector funds are not disclosed for 2016.

Table 7
Total Asset Size (USD million) and CAGR by Sector

	Total Assets 2012		Total Assets 2016		CAGR of Total Assets	
Year	Average	Median	Average	Median	Average	Median
Financial Services (including Microfinance)	217.5	100.1	231.1	94.3	1.5%	−1.5%
Multi-sector	9.1	7.2	37.4	19.0	60.1%	38.1%
Other	233.3	160.5	254.2	104.2	2.2%	−10.2%

2.3.4 By Main Investment Sector

Financial Services (including Microfinance) is the most represented sector in the sample by both volume (80.4% in 2012 and 82.7% in 2016) and number of funds (70% in 2012 and 80% in 2016; Figure 4 and Table 7). Funds specialized in other sectors and those operating in multiple sectors have a small share of the sample in terms of both volume and number of funds.

2.3.5 By Size

Figures 5 and 6 split the PDIFs in the sample into tiers: large funds with more than USD 250 million in AUM, medium-sized funds with USD 50–250 million AUM, and small funds with less than USD 50 million in AUM. Compared to 2012, in 2016 the proportion of large funds in the sample decreased slightly in terms of both total assets and number of funds, while the proportion of medium-sized funds increased. The proportion of small funds remained consistent in terms of total assets and number of funds during the period under review.

Figure 5
Total Assets by Size

% of Total Assets

	2012 (n=31)	2016 (n=46)
Large	74.9	66.5
Medium	22.3	30.0
Small	2.7	3.5

- Large
- Medium
- Small
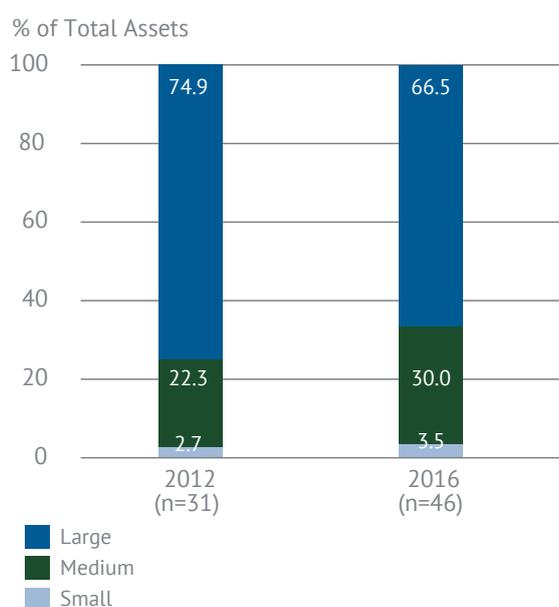
Figure 6
Number of Funds by Size

% of Funds

	2012 (n=31)	2016 (n=46)
Large	25.8	19.6
Medium	41.9	47.8
Small	32.3	32.6

- Large
- Medium
- Small

2.3.6 By Return Philosophy

Funds seeking risk-adjusted, market-rate returns (MR funds) comprise the majority of the sample in terms of number (on average 77%) and asset volume (on average 85%). MR funds have average AUM of USD 244 million, compared to below-market-rate-seeking funds (BMR funds) with average AUM of USD 38 million. In terms of investment sector, MR funds are mostly invested in Financial Services (81.7% on a five-year average), while BMR funds are primarily invested in 'Other' sectors (48%), followed by Financial Services (41%). By geographic allocation, BMR funds' main exposure is to Latin America (55%) and Sub-Saharan Africa (29%), while MR funds are primarily exposed to Eastern Europe and Central Asia (32%) and Latin America (31%).

2.4 PORTFOLIO AND INVESTOR CHARACTERISTICS

This section analyzes the sample funds' loan portfolios, excluding cash and other assets.

2.4.1 Total Loan Portfolio

As of December 2016, the combined loan portfolio of the PDIF sample reached USD 9.1 billion. The average fund in the sample has a loan portfolio of USD 182 million, while the median portfolio in the sample has USD 72.8 million. Roughly 75% of portfolios in the sample fall just below the mean, with a few large funds raising the sample average (Figure 7).

2.4.2 Average Maturity

The maturity of the average outstanding loan portfolio is 4.5 years. Larger funds by asset size appear to have longer maturities (Figure 8). By sector, there are shorter maturities in Financial Services and Multi-sector funds compared to other impact sectors (Figure 9).

Figure 8
Portfolio Maturity by Fund Size (2016, weighted average)
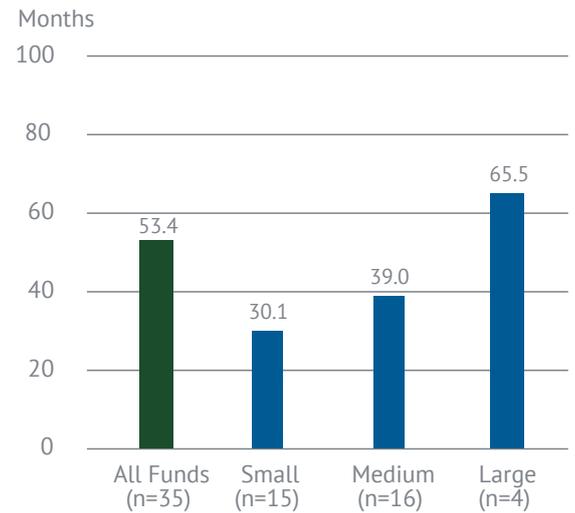
Figure 9
Portfolio Maturity by Sector (2016, weighted average)

Figure 7
Portfolio Size, Distribution of Sample (2016)
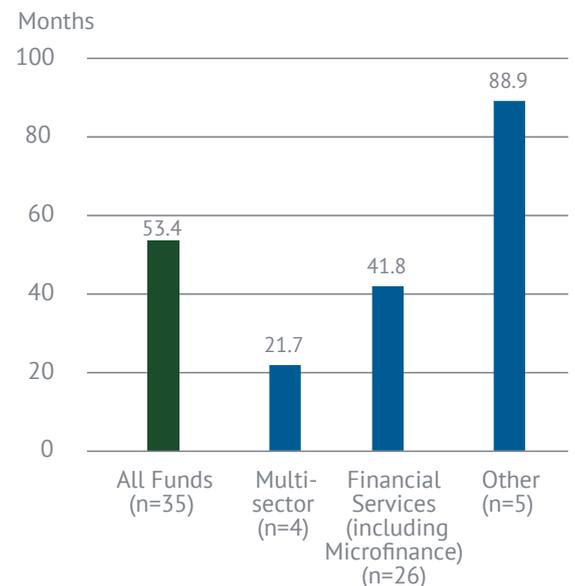
Table 8
Geographical Breakdown of Total Portfolio
by Main Investment Sector

	Financial Services (including Microfinance)	Other	Multi-sector
Latin America & Caribbean	32%	9%	32%
Eastern Europe & Central Asia	30%	84%	2%
South Asia	11%	0%	0%
Sub-Saharan Africa	11%	3%	37%
East Asia Pacific	11%	0%	12%
Middle East & North Africa	3%	4%	4%
North America	2%	0%	13%

2.4.3 Geographic Breakdown

The largest region in terms of portfolio exposure is Eastern Europe and Central Asia, followed by Latin America and the Caribbean, two regions that together represent 64.5% of funds' overall weighted portfolio allocations (Figure 10). The lowest exposures are in the Middle East and North Africa and North America (3.5% and 2.2%, respectively, of the funds' portfolios).

Considering only the Financial Services sector, Latin America and the Caribbean has the largest allocation (32%), followed by Eastern Europe and Central Asia (30%; Table 8). Multi-sector funds invest primarily in Sub-Saharan Africa (37%). Separately, only funds focused in Financial Services invest in South Asia, while only Multi-sector funds have some significant exposure to North America (Table 8).

Figure 10
Geographical Breakdown by Total Portfolio Volume
(2016, n=49)

- Eastern Europe & Central Asia
- Latin America & Caribbean
- Sub-saharan Africa
- East Asia Pacific
- South Asia
- Middle East & North Africa
- North America
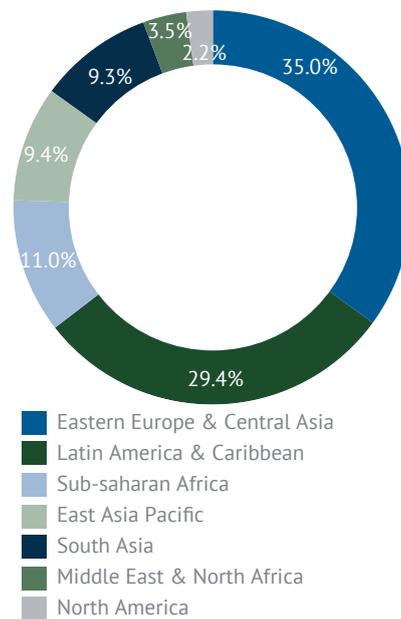
2.4.4 Types of Investors

Private investors, including institutional (37.9%) and retail (33.5%) investors, provide the largest share of funding to PDIFs. Public sources (development finance institutions or government agencies) represent less than a quarter of total funding, and high-net-worth individuals represent only 3% (Figure 11).

Figure 11
Investor Type by Volume of Total Equity and Notes (2016, n=47)

- Institutional Investors
- Retail Investors
- Public Funders
- High Net Worth Individuals
- Other Investors
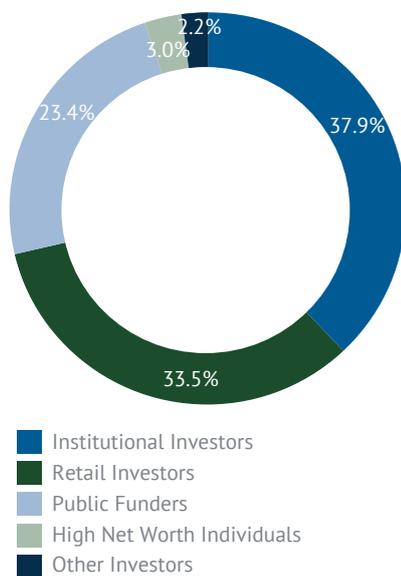
2.5 FINANCIAL PERFORMANCE BREAKDOWN

The following section assesses the financial performance of PDIFs.

From the perspective of an equity investor forming part of the shareholding structure of a PDIF, net returns depend on several factors. Broadly speaking, net returns primarily relate to the level of income generated by PDIFs' core lending business (the portfolio yield) and their total expense level. Figures 12 and 13 provide more detail regarding how MR and BMR funds have generated net returns to investors from 2012 to 2016.

For MR funds, income is composed mainly of portfolio yield (proceeds from the loan portfolio). Other sources of income include realized or unrealized gains (changes in the valuation of funds' assets, which in our sample are mainly driven by currency exchange fluctuations), proceeds from equity investments, if any, and recovery from write-offs, among other possible items. Costs include management fees, interest costs (cost of borrowing for levered funds), and realized or unrealized losses. Portfolio yield, other income, expense ratios, and interest costs are all relatively stable across the five years. The main drivers of fluctuations in annual performance are realized and unrealized gains or losses on assets.

MR funds generated a total income of 7.4% (expressed as a percentage of NAV) on a five-year average, comprising mostly the portfolio yield (6.6%; Figure 12). The sum of all expenses, including interest, amounts to 3.2%. After a realized loss of 1.4%, net return on the period was 2.8%.[7]

Figure 12
Financial Performance Breakdown (2012–2016), Risk-Adjusted, Market-Rate Funds

%	
8.0	
	0.5
	0.3
6.0	2.8 Net Return to Investors
4.0	1.4
Total Income 6.6	0.2 Total Expenses
2.0	3.0
0.0	

Legend:
- ■ Unrealized Gain/Loss (positive)
- ■ Other income
- ■ Portfolio Yield
- ■ Net Return to Investors
- ■ Realized Gain/Loss (negative)
- ■ Interest Costs
- ■ Expense Ratio
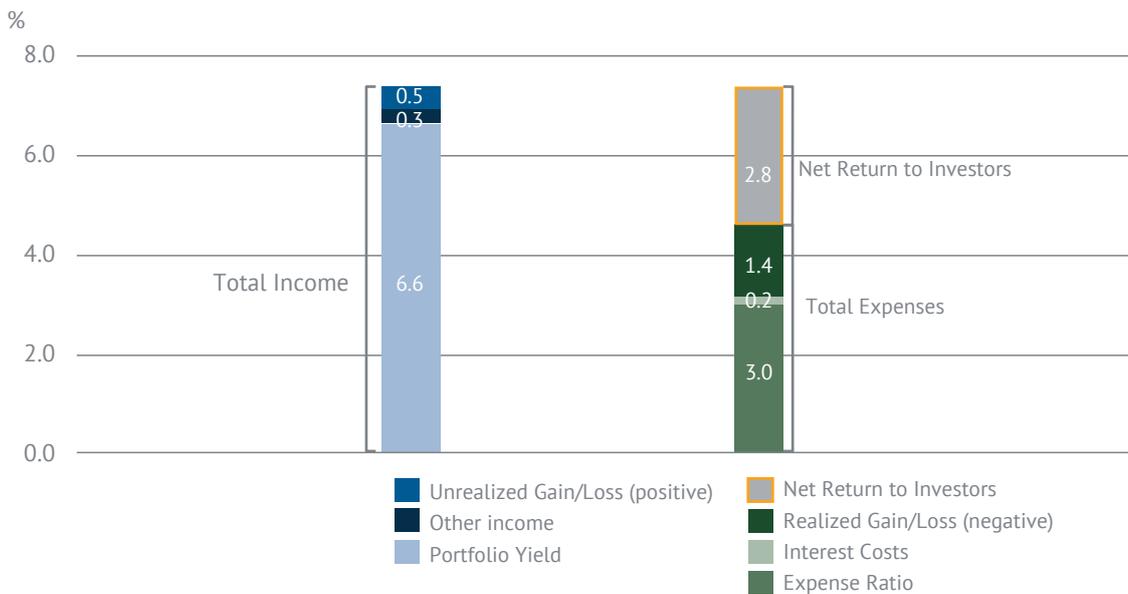
7   Net returns to investors in this section—that is, 2.8% for MR funds and −6.6% for BMR funds—differ from the respective averages of 2.6% and −6.8% for MR and BMR funds presented later in the chapter due to the different methodology required to calculate the complete financial breakdown shown in Figures 12 and 13. For more detail, please see 1.1.5 in the Methodology section.

A similar analysis for BMR funds (Figure 13) shows that these funds' total income is mainly generated by portfolio yield (14.1%) while total expenses are much higher (20.5%), with a much higher expense ratio (16.3%) due in part to greater leverage (and consequently a higher numerator; see section 2.5.3). As a matter of fact, all BMR funds regardless of their leveraging strategy show higher portfolio yields and expense ratios than MR funds, this may also be linked to their respective underlying portfolio investments. Furthermore, BMR funds' greater leverage also leads to higher interest costs (4.2%). Overall, the five-year period has negative net returns of −6.6% on a weighted average basis (including outliers).

The following sub-sections analyze more deeply a specific component of financial performance—first net returns, then portfolio yield, and finally cost structure—each broken down by segment (hedging strategy, use of leverage, return philosophy, and sector).

Figure 13
Financial Performance Breakdown (2012–2016), Below-Market-Rate Funds
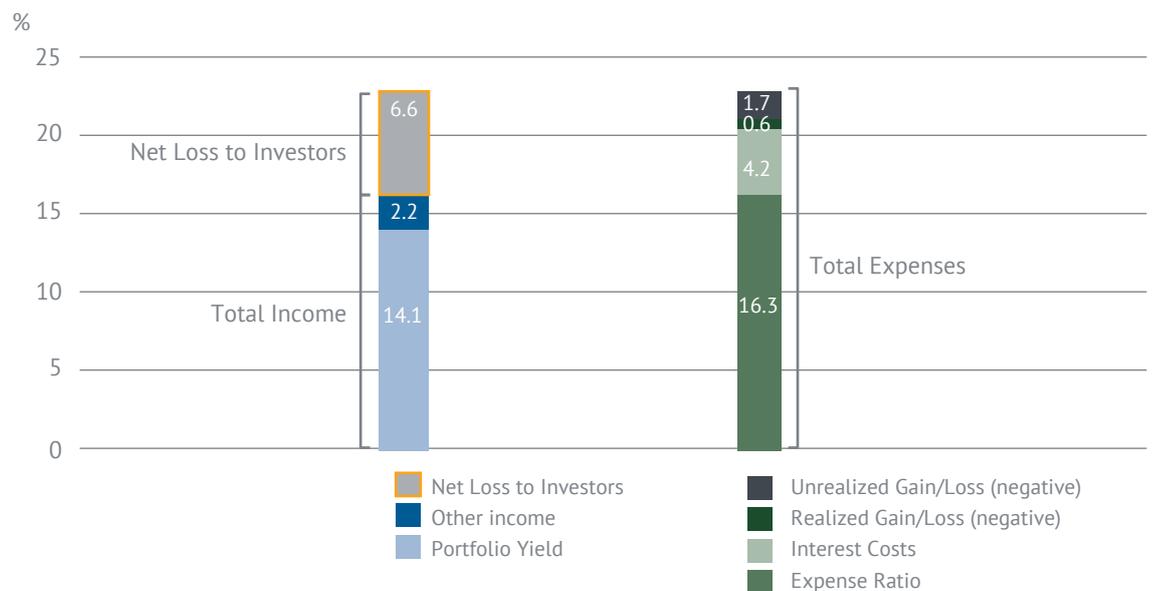
2.5.1 Net Returns to Investors

A. Return Philosophy

Most funds in the sample seek risk-adjusted, market-rate returns (Table 9), both by number of funds and total assets (comprising, on average, more than 80% of total sample assets throughout the period under review).[8]

Weighted net returns of risk-adjusted, market-rate-seeking funds averaged 2.6% over the last five years. Over the same period, more than 90% of funds generated positive returns, ranging from 0% to 6.6%. In 2016, the 90th percentile of MR funds by performance registered 10% returns. Annual median and averages are close, evidence of relatively homogenous returns across the sample.

On the other hand, almost half of the below-market-rate-seeking funds had negative net returns (Figure 14). Weighted net returns of below-market-rate-seeking funds averaged −6.8% over the last five years, pulled down by an outlier. Excluding this outlier, the five-year average return of such funds is −0.2%.

Figure 14
Average Net Returns by Return Philosophy
(2012–2016)
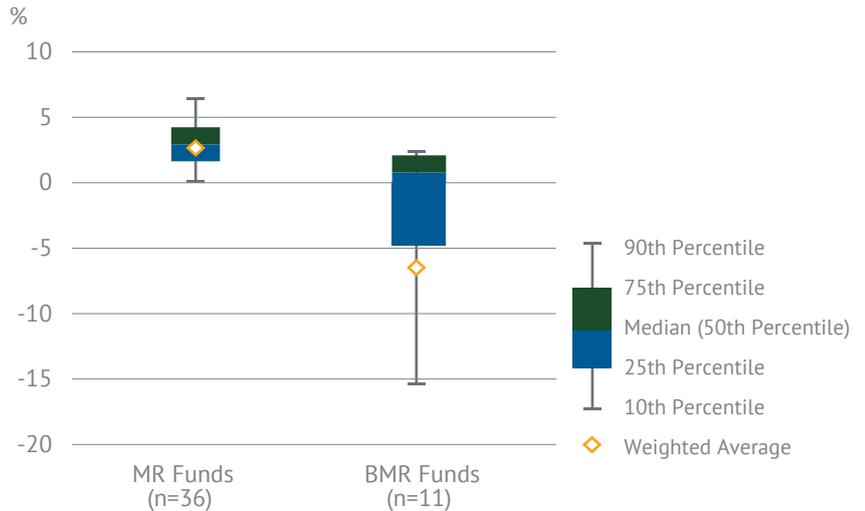
Table 9
Return Philosophy

	BMR Funds		MR Funds	
Year	Number of Funds	Sample Proportion by Total Assets	Number of Funds	Sample Proportion by Total Assets
2012	6	4.0%	23	82.5%
2013	8	3.5%	26	83.3%
2014	10	4.1%	28	85.6%
2015	11	4.2%	33	86.7%
2016	9	3.7%	34	87.7%

8   The sample proportion by total assets for BMR and MR funds does not sum to 100% because some funds in the sample did not report their return philosophies; these have been classified as neither MR nor BMR funds.

B. Hedged Versus Unhedged Funds

From 2012 to 2013, PDIFs (most investing in emerging markets) registered low returns due to the instability of several emerging market currencies that depreciated against the USD.

Figure 15
Average Net Returns by Hedging Strategy
(2012–2016)
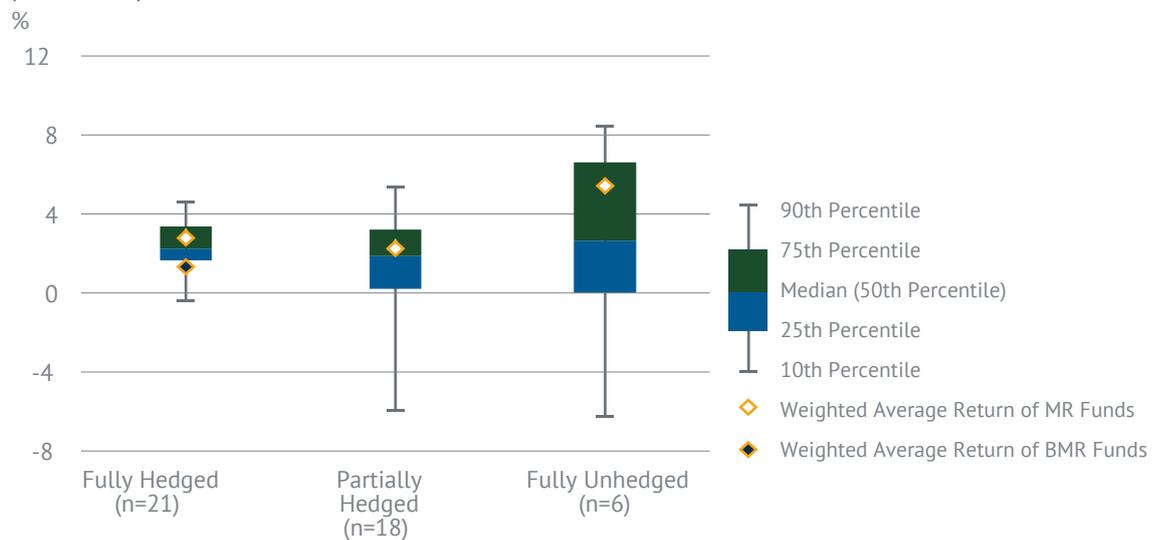
This depreciation impacted funds' hedging costs. Returns increased in 2014, before falling again in 2015–2016 after several political and economic challenges in emerging markets. For MR funds, the highest average annual compound returns over the period were registered by fully unhedged funds (5.6%) compared to fully hedged funds (2.8%; Figure 15). However, fully unhedged funds also had higher volatility (5.2%) compared to fully hedged (0.7%) or partially hedged (1.3%) funds (Table 10).

Table 10
Returns and Volatility by Hedging Strategy

	All Funds	Fully Hedged	Partially Hedged	Fully Unhedged
Compound Annual Net Return (5 years)	2.6%	2.8%	2.3%	5.6%
Volatility	0.9%	0.7%	1.3%	5.2%
Sharpe Ratio	0.77	1.27	0.29	0.71

Table 11
Returns and Volatility by Leveraging Strategy

	All Funds	Levered	Unlevered
Compound Annual Net Return (5 years)	2.6%	3.0%	2.3%
Volatility	0.9%	0.6%	1.3%
Sharpe Ratio	0.77	1.96	0.29

C. Levered Versus Unlevered Funds

Overall, levered funds showed higher returns (3%) on average than unlevered funds (2.3%) over the five-year observation period (Table 11 and Figure 16). Using leverage enhances portfolio performance if the underlying portfolio return exceeds the cost of debt.

While the above figures on net return relate to the performance of PDIFs from the perspective of an equity investor, debt investors can also benefit from interest on debt capital provided to PDIFs. These types of investors can usually expect a fixed-income return from levered funds over a certain period of time.

Levered funds comprise one-third of the sample by number of funds and one-fourth by total assets. Interest rates they provide on notes issued to investors have averaged 3% on a weighted basis, with a maximum of 3.4% in 2015 (Figure 17).

Figure 17
Interest on Debt

% of Average Debt
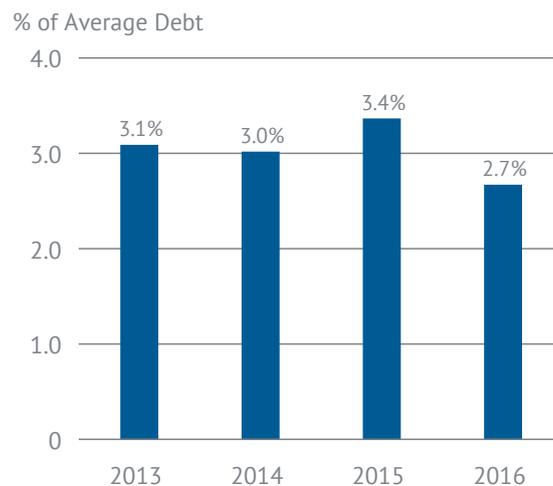
Figure 16
Average Net Returns of Levered and Unlevered Funds (2012–2016)

%

- 90th Percentile
- 75th Percentile
- Median (50th Percentile)
- 25th Percentile
- 10th Percentile
- ◇ Weighted Average Return of MR Funds
- ◆ Weighted Average Return of BMR Funds
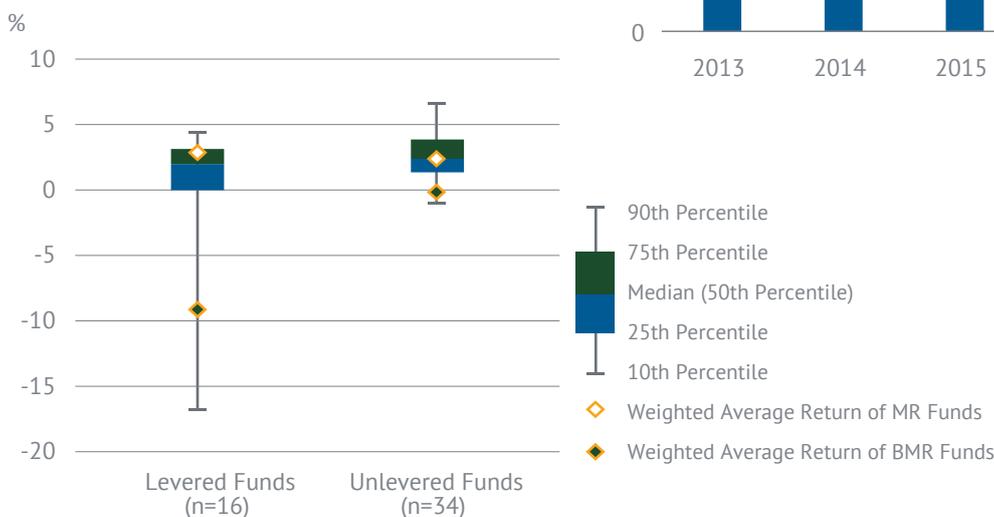
D. By Sector

Again considering net returns to equity investors, MR funds investing in the Financial Services sector (including Microfinance) showed more stable returns across the years, i.e. 2.6% (Figure 18), with the lowest annualized volatility of 1.0% compared to 4.0% for Multi-sector funds and 1.1% for funds investing in other sectors. The highest returns by sector were registered by Multi-sector MR funds (2.9% on a five-year average), while the worst performance was recorded by BMR funds investing in other sectors (−21.3%, or −10.6% when excluding one outlier).[9]

Finally, several outliers characterize the 'Other' sector category, mainly due to the heterogeneous sectors in which the funds invest, which results in wider variations in net return.

Figure 18
Average Net Returns by Main Investment Sector (2012 – 2016)

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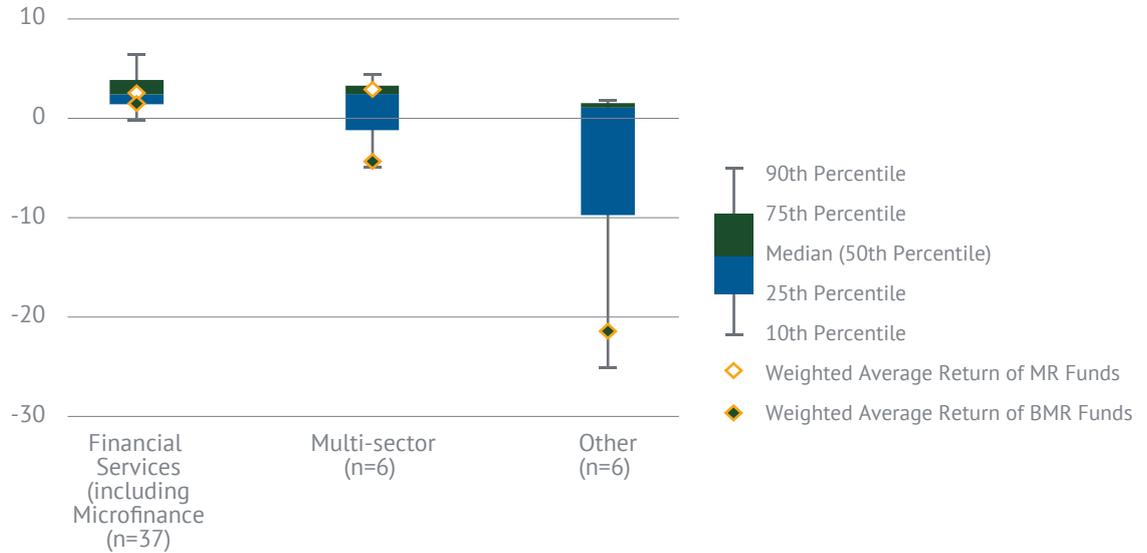
9   Funds in 'Other', sectors targeting risk-adjusted, market-rate returns are not shown on the graph due to a small subsample size.

E. Comparison with Other Asset Classes

Among the respondents, seven funds benchmark themselves to three- or six-month Libor USD, two funds benchmark to six-month Euribor, and the others target a range of returns over a five-year term from 3% to 5%.[10]

Compared to other asset classes (Table 12),[11] PDIFs register relatively low but stable returns.[12] They outperformed the three-month LIBOR USD ('Cash' in Table 12) more than five-fold, while exhibiting annualized volatility (0.9%) trailing only three-month LIBOR USD (0.1%). PDIFs have a low to negative correlation with a range of other asset classes and a higher Sharpe ratio.[13] While these findings are based on a limited number of observations (five periods of annual data), they are supported by the SMX-MIV Debt Index of Microfinance Private Debt Funds, which is similar in key characteristics and based on 60 monthly observations for the same time period. The SMX-MIV Debt Index has a correlation with developed-market bonds of only 0.09 and negative correlations with all other asset classes shown. [14]

The spreads of MR funds above money markets (Figure 19) move in a band between LIBOR +100 and +300 basis points net return.

Figure 19
Net Return Spread over Three-Month Libor USD
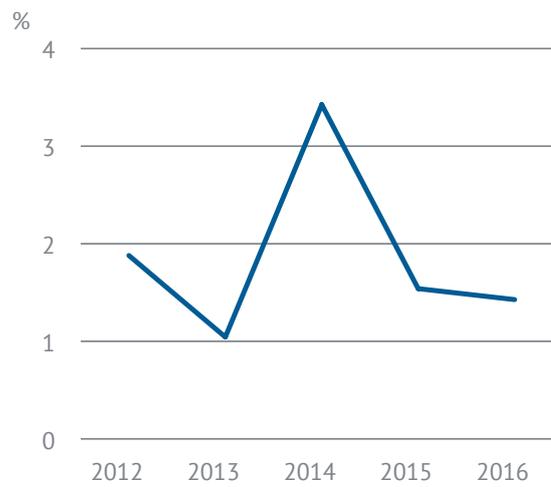
10 LIBOR is the London Interbank Offered Rate, or the rate of interest at which banks offer to lend money to one another on the wholesale money markets in London. Euribor, short for the Euro Interbank Offered Rate, is based on the average interest rates at which a large panel of European banks borrow funds from one another.
11 Returns and volatility for other asset classes were calculated using the following market indices:
    - For Developed Market Bonds, 'JPM Hedged USD GBI Global.'
    - For Emerging Markets Bonds, 'JPM EMBI Global.'
    - For Microfinance Private Debt, 'SMX-MIV Debt USD'.
    - For World Stocks, 'MSCI World Index.'
    - For U.S. Stocks, 'S&P 500.'
    - For Alternatives, 'HFRX Global Hedge Fund Index.'
    - For Cash, 'Three-Month Libor USD.'
12 Compound Annual Net Return of PDIFs and their annualized volatilities are calculated only for MR funds.
13 The Sharpe Ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk. The risk-free rate used to compute the Sharpe Ratio is the 5y, Daily U.S. Treasury Yield Curve Rate as of December 31, 2016, published by the U.S. Department of the Treasury.
14 0 implies no existing correlation, while 1 implies perfect correlation.

Table 12
Returns, Volatility, and Correlation by Asset Class (2012 – 2016)

|	Private Debt Impact Funds (MR Funds only)	Microfinance Private Debt	Developed Markets Bonds	Emerging Markets Bonds	Cash	World Stocks	US Stocks	Alternatives
Compound Annual Net Return (5 years)	2.6%	2.7%	3.4%	5.4%	0.4%	8.2%	12.2%	1.6%
Annualized Volatility (5 years)	0.9%	0.5%	3.1%	7.2%	0.1%	11.2%	10.4%	3.6%
Correlation Table								
Private Debt Impact Funds (MR Funds only)	1.00	0.91	0.81	0.45	-0.43	-0.01	0.07	0.10
Microfinance Private Debt		1.00	0.09	-0.00	-0.30	-0.08	-0.11	-0.19
Developed Markets Bonds			1.00	0.37	-0.12	-0.17	-0.18	-0.13
Emerging Markets Bonds				1.00	0.05	0.57	0.44	0.42
Cash					1.00	-0.03	-0.03	0.04
World Stocks						1.00	0.95	0.85
US Stocks							1.00	0.83
Alternatives								1.00
Sharpe ratio	0.77	1.77	0.48	0.49	-25.45	0.56	1.00	-0.08

All results from the table (Returns, Volatility, Correlation and Sharpe Ratio) for Private Debt Impact Funds are calculated using five annual observation points (2012 – 2016) whereas results for all other asset classes are calculated using 60 monthly observation points (Jan. 2012 – Dec. 2016)

2.5.2 Portfolio Yields

Average portfolio yields, the major source of income for PDIFs, varied slightly between 6.0% and 6.4% over the five-year period, while income from other activities remained a marginal source of revenue (Figure 20).[15]

Overall, levered funds naturally had higher portfolio yields than unlevered funds (Figure 21), particularly from 2014 to 2016, because portfolio yield is calculated on net assets plus average net subscriptions. For a given net asset size, a levered fund would have a larger portfolio than an unlevered fund. This higher numerator raises the portfolio yield of levered funds. Portfolio yields are higher for BMR funds (14% on average for the five-year period) compared to MR funds (6.6%, both levered and unlevered combined).

Figure 20
Total Income (Weighted Average)
%

	2012 (n=29)	2013 (n=32)	2014 (n=37)	2015 (n=41)	2016 (n=43)
Other Income	0.3	0.4	0.3	0.2	0.4
Portfolio Yield	7.1	6.7	6.4	6.3	6.6

■ Other Income
■ Portfolio Yield
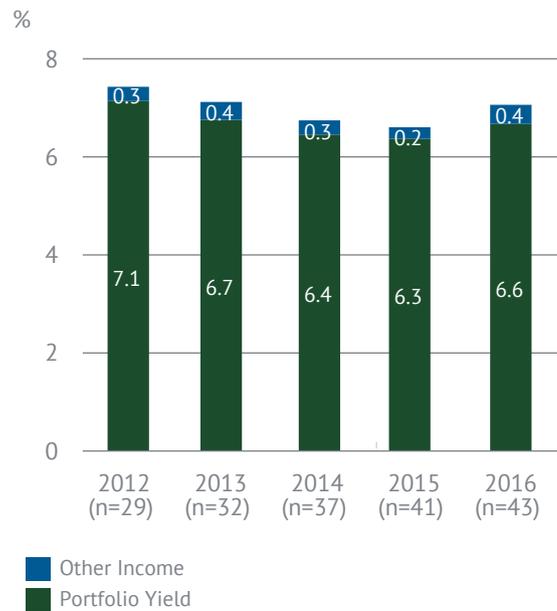
Figure 21
Average Portfolio Yield of Funds, (2012–2016)
Unlevered Versus Levered
%

Levered Funds (n=30)   Unlevered Funds (n=16)

◇ 90th Percentile
■ 75th Percentile
■ Median (50th Percentile)
■ 25th Percentile
│ 10th Percentile
◇ Weighted Average Portfolio Yield of MR Funds
◆ Weighted Average Portfolio Yield of BMR Funds
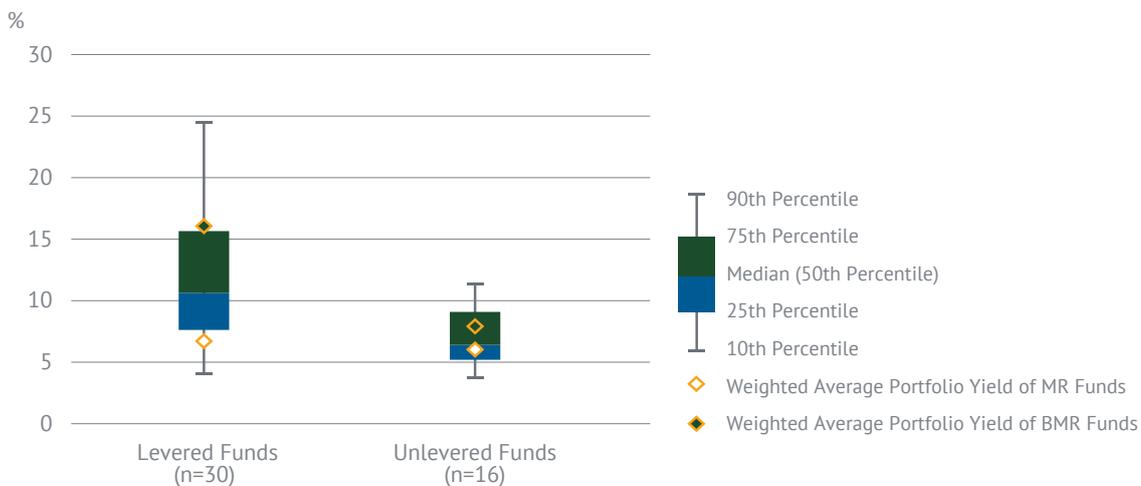

15 All figures in this section are calculated based on net assets and average net contributions.

2.5.3 Cost Structure

For PDIFs, the expense ratio, which includes management fees and other expenses,[16] constitutes the largest cost (Figure 22). The average expense ratio (3.1% over all five years) decreased slightly from 3.4% in 2012 to 3.1% in 2016 for all PDIFs, mainly because Financial Services funds have achieved economies of scale due to their long track record and size (see section 2.3.3).

Average interest costs for all funds remain low, between 0.2% and 0.3%, reflecting in part the zero interest costs of unlevered funds.

As with portfolio yields, total expenses are higher for levered funds (4.9%) than for unlevered funds (2.4%). One explanation is that the denominator (net assets plus net average subscriptions) is lower for the former, naturally resulting in higher total expenses for such funds relative to assets. BMR funds have a much higher average expense ratio (16.3%) than MR funds (3.0%) over the five-year period.

Regarding the expected total expense ratio (TER) as self-reported by PDIFs (Figure 23), most funds target a TER between 1% and 3%, but, depending on the fund's structure, TERs can exceed 5%.[17]

Figure 22
Average Fund Cost Structure (2012–2016)

%

Legend:
- Interest Costs
- Expense Ratio

All Funds: Total 3.3% (Interest Costs 0.2, Expense Ratio 3.1)
Levered: Total 4.9% (Interest Costs 0.7, Expense Ratio 4.2)
Unlevered: Total 2.4% (Expense Ratio 2.4)
MR Funds: Total 3.2% (Interest Costs 0.2, Expense Ratio 3.0)
BMR Funds: Total 20.5% (Interest Costs 4.2, Expense Ratio 16.3)
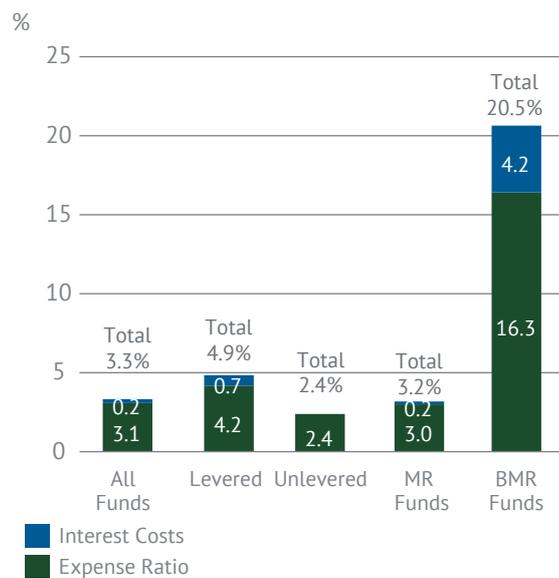
Figure 23
Distribution of Expected Total Expense Ratio

Number of Funds

<1%: 3
1-2%: 14
2-3%: 10
3-4%: 5
4-5%: 1
>5%: 8
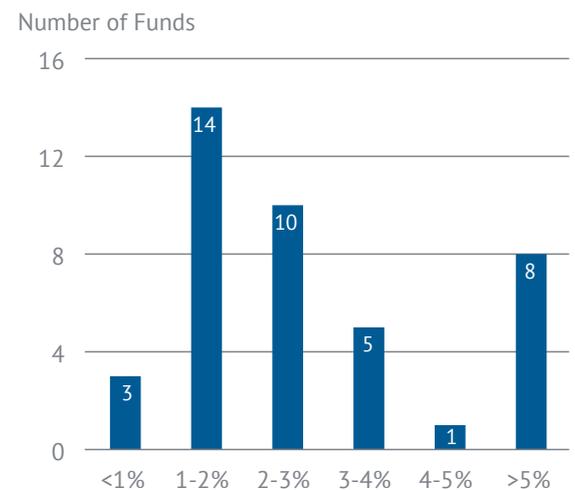
16 Other expenses include accounting fees, custodian fees, legal fees, marketing and distribution costs, and general administration fees.

17 Expected TER was self-reported by participants on the survey platform and differs from the expense ratio computed using annual financial statements. Expected TER is also calculated using a different denominator, namely total assets, while the expense ratio computed from financial statements used as a denominator net assets plus average net contributions.

52% Portfolio in Non-Investment Grade Institutions

87% Portfolio in Senior Debt

10% Portfolio in Subordinated Debt

33% Portfolio in Local Currency

85% Portfolio in Unsecured Loans

2.6 PORTFOLIO RISK

Most of the sample invests in emerging markets (see section 2.4.3 Geographical Breakdown), which informs their risk-management strategies in terms of investees, seniority, and portfolio quality. As of December 2016, half of the PDIFs' total portfolio is invested in non-investment grade institutions (< BBB−), 33% denominated in local currency, and 85% in unsecured loans.

Figure 24
Loss Provisions Outstanding by Fund Size
(2016, Weighted Average)
% of Portfolio Outstanding
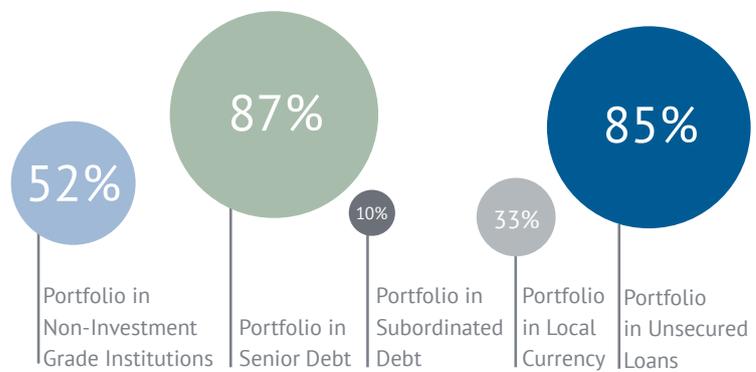
The level of loss provisioning for PDIFs in the sample was 2.6% on a weighted average basis (Figure 24). Larger funds tend to have higher provisioning ratios than smaller ones. Funds with total assets below USD 50 million had only 1.3% provision on average, whereas funds with total assets greater than USD 250 million had 3.1% of their portfolio provisioned, on average. BMR funds provisioned on average 7.3% compared to 2.6% for MR funds.

Furthermore, regarding hedging strategy, partially hedged funds have the highest provision rate (4.6%), and fully unhedged funds have the lowest rate (0.5%; Figure 25). However, fully unhedged funds are less mature than the others, on average, with most having fewer than three years' track record.

Large funds have the highest proportion of written-off loans (Figure 26), even though the proportion remains relatively low compared to their provisioning ratio.

Figure 25
Loss Provisions Outstanding by Hedging Strategy
(2016, Weighted Average)
% of Portfolio Outstanding
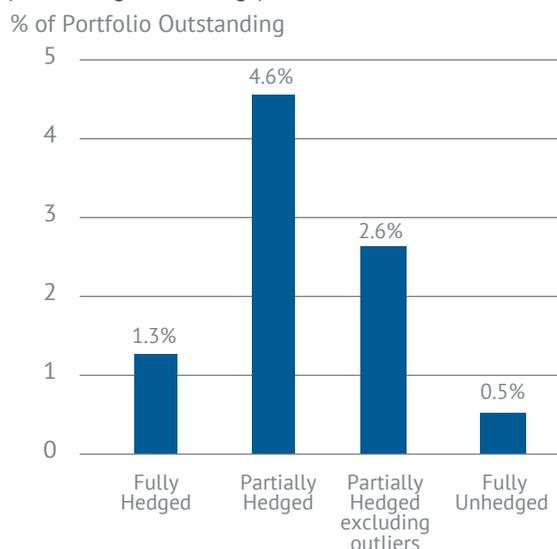
Figure 26
Write-offs by Fund Size
(2016, Weighted Average)
% of Portfolio Outstanding
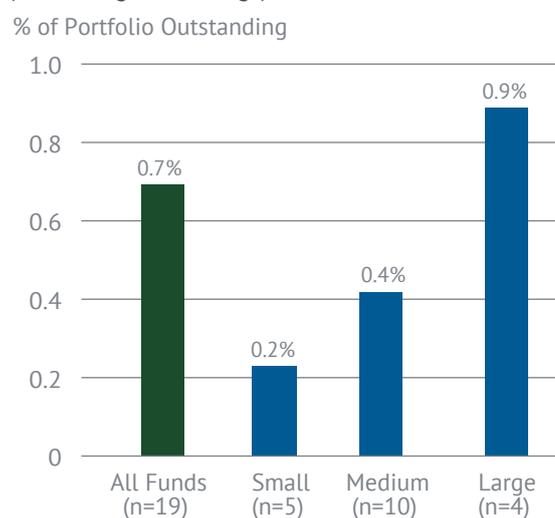
2.7 IMPACT MEASUREMENT

The most frequently targeted impact themes (particularly by funds mainly investing in Financial Services, including Microfinance) are financial inclusion, followed by employment generation and entrepreneurship (Figure 27). In addition to employment generation, funds that invest in multiple sectors mainly target access to energy, health improvement, and clean technology. Sustainable consumption, agricultural productivity, climate-change mitigation, and food security recur the most across funds investing in other sectors.

Forty-six of the 50 funds surveyed responded to an optional question about impact criteria applied prior to investment to inform investment selection or due diligence. Of those responding, 41 funds apply impact criteria to all their investments, two apply criteria only to some investments, and three did not apply any criteria. Furthermore, of the 28 respondents that described the type of impact criteria applied to investments, 11 use an Environmental, Social, and Governance (ESG) exclusion list.

Figure 27

Impact Themes by Main Investment Sector

- Financial Services (including Microfinance) (n=37)
- Multi-sector (n=7)
- Other (n=6)
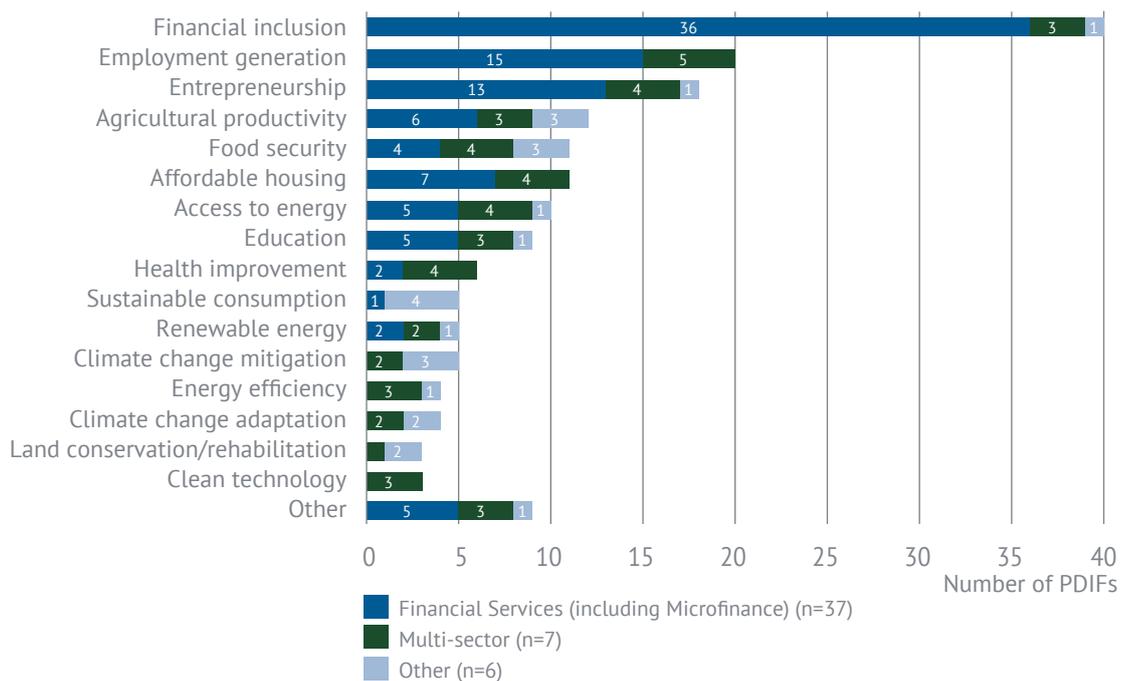
In terms of impact metrics, funds listed up to five primary impact metrics they used to measure their social or environmental impact (Figure 28). After grouping impact metrics by category and sector, recurring the most for Financial Services funds are number of women reached (30 out of 37 funds), as well as number of rural clients (26 out of 37). Other impact metrics mentioned in this sector include average loan size (20) and number of jobs created (12). For PDIFs investing in other sectors, the most common impact metric is amount of land cultivated (four out of six funds), followed by number of clients reached (three). Finally, for Multi-sector funds, economic growth of clients (three of seven funds) and number of clients (by gender and location) are the most common.

Figure 28
Impact Metrics by Main Investment Sector

Number of women reached — 30, 2, 2
Number of rural clients reached — 26, 2, 1
Number of clients reached — 18, 2, 3
Average loan size — 18, 1
Number of jobs created — 12, 2
% of portfolio in each investment theme — 9
Number of clients with savings accounts — 8
Economic growth of clients — 3, 3, 2
Amount of land cultivated — 1, 4
Growth rate of loan portfolio — 4
% investees that adopt Client Protection Principles — 4
Number of clients in each income category — 3, 1
% of portfolio in write-offs — 3, 1
Holistic impact on community — 2, 1, 1
Other — 18, 9, 2

Number of PDIFs

Financial Services (including Microfinance) (n=37)
Multi-sector (n=7)
Other (n=6)

2.8 IMPACT PROFILES

The following section describes impact measurement and management processes and practices of three sample PDIFs: one investing primarily in Food and Agriculture, one focused on Financial Services (including Microfinance), and a third, Multi-sector fund.

2.8.1 Food and Agriculture

Background

By investing in agricultural businesses in developing countries, this open-ended fund aims to contribute to the sustainable development of actors in the value chain of local agriculture who can directly or indirectly contribute to the socioeconomic and ecological development of rural regions.

Specific impact objectives relate to agricultural productivity, resource security, job creation, working standards in agriculture, and livelihoods for farmers. Agriculture-related businesses to which the fund lends must:
› employ a sustainable business model;
› empower people at the base of the pyramid by sourcing from smallholder farmers or employing people from low-income groups.
› demonstrate a commitment to socially and environmentally friendly production;
› ensure owner and manager integrity; and
› have a real financing need (to avoid over-indebtedness).

Impact Measurement and Management Process

Monthly and quarterly reports are produced for investors with the following impact indicators:
› number of investments;
› number of institutions;
› number of farmers reached;
› number of countries; and
› number of commodities.

Impact Results

In November 2017 (the most recent month for which data were available), the fund was invested in 53 commodities spanning 44 developing countries. The fund reached over 814,000 farmers through the agricultural organizations it financed, helping drive economic growth in rural areas. For example, one company the fund financed helped rebuild the northern Ugandan cotton crop after the protracted period of armed conflict that ended in 2008. A capital injection enabled the company to establish cotton buying and processing operations, including purchasing a ginnery and accessing international buyers. Through its network of community-based agents, the company has provided agricultural extension and training services to 60,000 farmers on topics including agronomy, organic farming, post-harvest handling, numeracy, and financial literacy.

2.8.2 Financial Services

Background

This open-ended private placement fund seeks to increase financial inclusion by providing short-term loans to microfinance and SME financing institutions in emerging markets. The fund targets risk-adjusted, market-rate returns. Prior to investment, it assigns each prospective investee a social impact score, which it reviews, along with data on financial performance and anti-money laundering (AML) compliance, to determine whether to invest.

Impact Measurement and Management Process

The assessment prior to investment of social and environmental impact typically entails site visits to meet with various staff at the target investee, as well as interviews with end borrowers. The fund also considers whether the investee adheres to standard frameworks for client protection and social performance management, such as the SMART Campaign. After investing, the fund shares observations of social, environmental, or financial performance with senior leadership of the investee.

The fund continually measures progress towards improving financial inclusion by reviewing several key metrics on a quarterly basis. Examples include:

› percent of borrowers that are women;
› percent of investee staff that are women;
› average loan size issued by the investee;
› whether the investee is a deposit-taking institution and thus has an appropriate range of product offerings; and
› growth rate of gross loan portfolios.

The fund monitors investee performance over time. If significant changes occur—such as a modification of investee product offerings or borrower demographics—the fund will conduct additional analysis to understand any underlying factors. The fund may then choose not to renew a loan. Additionally, the fund annually produces a publicly available impact report that aggregates data at the fund level, assessing the fund's contributions toward three SDGs: 1. No Poverty, 5. Gender Equality, and 8. Decent Work and Economic Growth.

Impact Results

As of 2016 year's end, the fund had financed a total of 36 institutions across nearly 20 countries. Among these financial institutions, nearly half were deposit-taking. On average, its portfolio companies reached nearly 300,000 active borrowers during 2016, among whom approximately 60% were women. Over three-quarters of loans were productive. In 2016, the fund also received a Gold GIIRS rating of its social and environmental impact.

2.8.3 Multi-sector

Background

This open-ended private placement fund seeks market-rate returns from its portfolio, which is invested exclusively in emerging markets. The fund invests in multiple sectors, including Education, Energy, Food and Agriculture, and Housing to achieve a range of impact objectives aligned to six of the SDGs: 1. No Poverty, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth, 10. Reduced Inequalities, 12. Responsible Consumption and Production, and 17. Partnerships for the Goals.

Impact Measurement and Management Process

Prior to offering financing to a prospective loan client, the fund gathers data to ascertain their impact potential. To determine whether to invest, the fund reviews both business-related criteria—such as operational track record, profitability, and growth—and impact-related criteria, including the quality of the investee's products and services, the extent to which their impact can be measured, their governance structures, their reporting capabilities, and alignment of the company's and fund's visions.

During the life of a loan, the fund collects and reports impact data quarterly, using metrics identified by sector through the IRIS catalog. Additionally, investees participate in a GIIRS audit each year. The fund's reports include the following metrics, among others:

› metric tons of CO_2 emissions reduced;
› number of smallholder farmers;
› number of clients receiving access to credit for the first time;
› percent of clients that are women; and
› percent of clients that live in rural areas.

Though the fund does not set quantitative impact targets, it does monitor changes in investee performance on each metric over time. If the data show decreasing or stagnating impact performance, the fund will investigate the underlying causes of the issue. The fund may choose not to renew loans if they do not achieve the desired impact.

Impact Results

During 2016, the fund reached nearly 400,000 clients, 90% of whom live in rural areas and 34% of whom are women. Portfolio companies employed over 4,500 staff. In one example, a solar energy portfolio company installed a solar system in a primary school in rural Uganda, which generated sufficient light and energy to power the school. As a result, students could access information through TV programming and study at the school during the evening hours.

3. CONCLUSION

Investors can choose from a wide range of products to build diversified portfolios. This study demonstrates that investors have attractive options if seeking stable returns alongside positive impact.

Performance analysis over the period 2012 to 2016 presented here offers insights into the behavior of impact investments in private debt. These insights are also consistent with other research showing that returns on such investments typically maintain low volatility in the face of risk while performing in line with expectations.[18] PDIFs are a gateway for different types of investors who seek to generate social and environmental impact, or both, alongside a financial return.

This study has shown that PDIFs have the following characteristics:

› **Offer stable returns**
Returns for PDIFs seeking market-rate returns have averaged 2.6% per annum since 2012, with low volatility of 0.9%. Such PDIFs had a higher Sharpe ratio than a range of traditional investment products, including bonds and cash. Some PDIFs also raise debt financing, providing a fixed-income return to investors that has averaged 3% since 2012.

› **Offer investors different risk-return strategies**
Investors accustomed to the traditional bond market may hesitate to invest in different, potentially less stable currencies. Such investors may prefer fully hedged funds—and such funds in the study's sample registered a solid average return of 2.8% with 0.7% volatility. However,

the data also show that returns on average are higher (5.6%) in the more adventurous segment of fully unhedged funds, albeit with higher volatility (5.2%).

› **Seek impact through a range of sectors**
While a range of sectors are represented in this sample, PDIF assets, at least in this sample, are concentrated in Financial Services. The most frequently cited impact objective for this group is financial inclusion, though funds also seek many other types of impact, from increased access to basic services like health and education to promotion of entrepreneurship and employment.

This study, which adds to a growing body of evidence regarding the financial performance of impact investments, takes the first steps toward building a robust database of private debt impact investing funds that will be maintained and regularly updated. This effort will establish much-needed, reliable benchmarks to help impact investors and fund managers make allocation decisions and compare their performance to peers. As the samples grow, so will their representativeness and value for current and prospective impact investors alike.

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18 Abhilash Mudaliar and Rachel Bass, GIIN Perspectives: Evidence on the Financial Performance of Impact Investments (New York: Global Impact Investing Network, November 2017), https://thegiin.org/research/publication/financial-performance.

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