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Impact-Oriented Microfinance Investment Vehicles: A Preliminary Investigation on the Controversial Link between Performance and Stability

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Abstract: Social impact finance can foster economic and financial stability by promoting investments with social goals and non-speculative financial returns.

The aim of this paper is to test whether Microfinance Investment Vehicles (MIVs) — labeled impact-oriented MIVs — contribute to economic and financial stability via their performance. Specifically, we test MIVs financial performance and risk-adjusted performance, assuming that: (i) financial returns below the market rate of return (MRR) are likely to contribute to economic stability via higher social and financial inclusion rates and via the promotion of microentrepreneurship; (ii) higher adjusted returns, characterized by low volatility, support financial stability.

Results show that impact-oriented MIVs perform below the MRR only if we look at financial performance; when risk-adjusted performance is taken into consideration, impact-oriented MIVs outperform the market. We tested our results with a comparative sample of alternative MIVs aiming for social impact, but not labeled as impact-oriented. Results show that impact-oriented MIVs outperform the comparative sample, while their risk-adjusted performance is lower than that of alternative MIVs.

The analysis shows that the market offers different investment options to investors, blending different level of financial return, risks and social goals, with different potential impact on economic and financial stability.

Key words: social impact investments, microfinance impact vehicle; economic stability, financial stability, sustainable growth, financial inclusion

JEL codes: G11, G15, G23, G24

1. Introduction

Microfinance Investment Vehicles (MIVs) can be established for different purposes: to obtain financial returns, generate social impact, or achieve a combination of social and financial returns. When MIVs are

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established with the intention of obtaining social goals, alongside financial return, they fall within the perimeter of social impact investments (SIIs) and can be labeled as impact-oriented MIVs.

The term impact investing was coined at the Rochefeller Foundation Centre in Italy (Harji & Jackson, 2012) and is becoming a hot topic on the public and private agenda.

According to the Social Impact Investment Taskforce (SIIT) promoted by the G8 countries in 2013, SIIs can be defined as "those that intentionally target specific social objectives along with a financial return and measure the achievement of both" (SIIT 2014).

The financial crisis along with the difficulties faced by governments in implementing sound budgetary policies, while preserving the welfare state, and the increasing demand of social investments, are among the main determinants of social impact investments.

The impact investing market managed nearly USD 114 billion in 2016 (Mudaliar et al., 2017).

SIIs can contribute to economic stability fostering job creation, a more inclusive financial system, and a more balanced wealth distribution; they can also contribute to financial stability via less volatile investments.

The financial crisis stressed the need for ethical investments and for investments that generate long-term impact. Davies et al. (2014, p. 16) recognized that short-termism represents a cost for capital markets 'forgoing valuable investment projects and potential output'. Microfinance, in particular, is recognized worldwide by policy makers as a powerful tool to promote financial inclusion and microentrepreneurship. At the European level, the Social Agenda adopted by the European Commission has put microcredit at the heart of its social innovation policy. This is inspired by the idea that social cohesion and financial inclusion are preliminary conditions for a sustainable economic growth.

MIVs play a crucial role in the development of the microfinance market. It is, then, worth analyzing under what conditions MIVs can foster economic and financial stability.

Therefore, the aim of this paper is to test whether MIVs — labeled as impact-oriented MIVs — can contribute to economic and financial stability via their performance. Our hypotheses assume that: (i) financial returns below the MRR are likely to generate higher social and financial inclusion rates and they foster microentrepreneurship contributing to economic stability. This is consistent with the approach of the OECD, suggesting that the financial return of SIIs should not overcome the MRR (OECD 2015); (ii) higher adjusted returns, characterized by low volatility contribute to financial stability.

In order to achieve the above aim, the paper assesses both financial performance and risk-adjusted performance. More specifically, we compare performance obtained by impact-oriented MIVs — available from the Thomson Reuters Datastream — with: a) market return captured by a set of selected benchmarks; b) return of a comparative sample of MIVs. Risk adjusted performance measures suggested by Sharpe (1966) are also employed.

Results show that impact-oriented MIVs meet the OECD criteria only if we look at financial performance; when risk-adjusted performance measures are taken into consideration, impact-oriented MIVs outperform the market. We tested our results with a comparative sample of alternative MIVs aiming at social impact, but not labeled as impact-oriented. Results show that impact-oriented MIVs outperform the comparative sample, while their risk-adjusted performance is lower than that of alternative MIVs.

The paper contributes to the existing literature by adding to a neglected perspective and providing additional information on impact-oriented MIVs' financial performance, useful to professionals, investors and policy makers involved in fostering a more inclusive financial market and more sustainable economic growth.

This paper is structured as follows: the second section introduces the relevant literature; the third section describes data and methodology of the analysis, while the fourth section presents and discusses results. Conclusions summarize the main remarks and identify areas for future research.

2. Inspiring Literature

Literature on SIIs is at an early stage of development (Emerson & Spitzer, 2007; Moore et al., 2012; Nicholls 2010; Höchstädter & Scheck, 2015). Few studies focus on the performance of social impact funds and investigate whether financial return is in line with or above the MRR. To the best of our knowledge, no study focuses on whether social impact funds — particularly MIVs — generate financial return below or in line with the MRR, putting this also in connection with economic and financial stability.

Both literature on the performance of MIVs and SIIs may be useful for the purpose of this paper. However, collecting performance literature of MIVs or social impact funds' presents a challenge as the topic has been somewhat neglected by the existing literature.

MIVs allow investors to diversify their investment in into microfinance institutions (MFIs) (Goodman, 2006) and they can be viewed as asset managers devoted to MFIs.

The literature on microfinance focuses mostly on MFIs and their financial and social results (as in Gonzalez, 2007; Galema et al., 2011) when compared with MIVs.

Performance analysis of MIVs are limited to Janda and Svárovská (2010) and Janda et al. (2014); analyzing a sample of MIVs in the period 2006-2009, they showed that MIVs obtain moderate and stable performance, while offering a positive contribution to portfolio diversification. Thus, MIVs can represent a good investment opportunity for a broad range of investors — and not only responsible investors — due to the absence of a correlation with global or emerging markets and their positive risk-adjusted returns.

Analyses on impact-oriented MIVs are also poor. La Torre and Chiappini (2016) have investigated the level of compliance and disclosure of impact-oriented MIVs with respect to the OECD criteria. They found that no impact-oriented MIV declares return below the market rate. The cap to financial return fixed by the OECD is in line with the streams of literature and with those practitioners who argue that ethical investments should not provide speculative returns (as in La Torre & Vento, 2006). According to the above, microfinance investments — that offer financial services to poor and the financially excluded — should incorporate low interest rates; consequently, investments in MFIs should offer returns below the market rate of return. For others, not in line with the OECD approach, the intrinsic potential of microfinance is to reach people who remain outside the financial system. Thus, the interest rate return can be fixed at market level, as well as the return of investment in MFIs. To this date and to the best of our knowledge — no study has carried out any performance analysis of impact-oriented MIVs.

Impact investing funds also represent a cloudy area due to the limited number of analyses carried out and their scarce level of depth. According to Chiappini (2017) literature on social impact funds is characterized by five main streams: (1) analysis of fund features, (2) the role played by funds in the SIIs market, (3) factors which affect success of impact-oriented funds, (4) analysis of fund's case studies (5) fund's financial performance.

The most developed stream is the one focusing on case studies of funds (GIIN, 2012; Vecchi et al., 2015; the Cabinet Office of the UK Government, 2013; Koenig & Jackson, 2016).

Performance of impact-oriented funds has been poorly investigated by scholars. Allman and De Nogales

(2015) argued that impact investing funds can charge higher costs and reach lower financial return than traditional funds, due to the limited spectrum of investments and the consequently "longer times to deploying funds and making investments" (p. 248). Allman and De Nogales suggested different solutions that impact funds can adopt in order to solve cost/return problems — such as altering their social mission or social investment criteria, incurring several risks, as constraints in the placement of shares, or they can also shorten the selection process compromising financial performance.

Researches attempting to compare the performance of impact investing funds with traditional funds are limited and relatively recent. According to Cambridge Associates and the GIIN (2015)[1], impact-oriented equity funds established between 1998-2004 performed in line with, or better than, traditional funds, while impact-oriented funds established between 2005 and 2010 performed worse than the sample of traditional funds. The analysis also provides a comparison of performance in relationship to geographical area and fund size; small funds, characterized by less than $100 million in Assets Under Management (AUM) obtain higher Interest Rate Return (IRR 9.5%) than large funds (6.2%). The same study, comparing impact-oriented private equity funds with a contrast sample of traditional funds investing in the same asset class, found that small funds outperform traditional funds, while large funds do not obtain better financial results than traditional funds.

A descriptive analysis of targeted performance has been conducted by the Global Impact Investing Network (Mudaliar & Barra, 2015). According to Mudaliar and Barra (2015) 236 out of 308 impact-oriented funds target MRR.

A different strand of literature has analyzed the main variables that may indirectly affect the performance of a SII fund. Trelstad (2009) identifies the main aspects that characterize impact funds, comparing them with traditional profit-maximizing funds; among these aspects, the investment strategy — which includes the pursuit of social or environmental aims — and professional skills of the fund's team are the most significant. According to Clark et al. (2013) outstanding impact-funds operate with the financial and regulatory support of governments, are managed by people with financial and non-financial skills (as non-profit or development finance skills). Furthermore, they provide the same priority to social and financial objectives, and understand the role of aligning fund investors' objective not only to financial aim, but also to social strategies[2].

Target return as well as capital structure with a public or private nature of funding contribute to classy impact-funds in three categories: commercial impact-oriented funds, non-commercial impact-oriented funds and quasi-commercial impact-oriented funds (Chiappini, 2017).

3. Data and Methodology

3.1 Data

This paper analyzes the performance of five impact-oriented MIVs selected due to their impact-oriented statement and their registration in the GIIN, which is commonly regarded by professionals as the market association of social impact investors. Time series of monthly Net Asset Values (NAVs) per shares of impact-oriented MIVs — class institutional — are obtained from Thomson Reuters Datastream, which is our

[1] The analysis focuses on 51 private investment funds which operate in a multitude of sectors and geographical areas.

[2] Clark et al. (2013) analyzed factors that can contribute to the success of impact investing funds. Among 350 impact funds, they selected funds that met or exceeded their target financial and social return and that matched the criteria of: explicit impact aim, a minimum of 5 years of operation and employ clear and shareable system of social impact measurement. Funds which match all these criteria were only thirty.

source also for NAVs per shares of the three MIVs included in a comparative sample. Other information useful for our analysis — such as the geographical area of investment and the volume of assets invested — are extracted from monthly reports of MIVs (as for September 2016). Table 1 resumes the main features of the selected impact-oriented MIVs, while Table 2 summarizes the main characteristics of MIVs included in the comparative sample. The latter has been selected due to its investments in MFIs and thanks to the publication of a social report, which does not involve any participation from the GIIN. Thus, MIVs included in the comparative sample show concrete attention to the social results of their investments, but do not publically declare themselves as impact-oriented vehicles. According to this perspective, they can be considered as a meaningful comparative sample.

Table 1 Impact-Oriented MIVs Main Features

Features		Name				
		BlueOrchard Microfinane Fund	IIV Mikrofinanzfonds	ResponsAbility Global Microfinance Fund	ResponsAbility Microfinance Leaders	Triodos Microfinance Fund
Legal status		SICAV Luxembourg, part II	Public Investment Fund	Fonds Commun de Placement, part II	SICAV	SICAV
Inception		18th September 1998	31st October 2011	25th November 2003	15th November 2006	March 2009
Fund Value (as of 30th September 2016)		571.0 million	352.3 million	1139.8 million	281.7 million	331.4 million
Currency		USD	EUR	USD	USD	USD
Distribution		-	Yes	No disbursement. Return are reinvested	No disbursement. Return are reinvested	No disbursement. Return are reinvested*[1]
Geographical Allocation of portfolio		South America: 22.18% Caucasus: 14.53; South Asia: 13.96%; East Asia and The Pacific: 13.72%; Central America and Caribbean: 12.59%; Sub-Saharan Africa: 9.06%; Central Asia: 7.21%; Eastern Europe: 4.12%; Middle East and Nord Africa: 1.57%	South-East Asia: 15.36%; Caucasus and Eastern Europe: 12.75%; South America: 15.24%; Africa: 2.63%; Central Asia: 17.31%; Central America: 5.32%	Asia-Pacific: 23.9%; Central Asia: 18.4%; South America: 15.6%; Sub-Saharan Africa: 11.3%; Central America: 9.9%; Middle East and Nord Africa: 9.4%; Eastern Europe: 6%; Other: 5.6%	Asia Pacific: 24.8%; Central Asia: 17.2%; South America: 17.2%; Central America: 13.0%; Sub-Saharan Africa: 10.3%; Eastern Europe: 7.1%	Latin America: 31.9%; East Asia and Pacific: 25.5%; East Europe and Central Asia: 20.2%; South Asia: 13.5%; Africa and Middle East: 7.6%, Worldwide: 1.3%
Instruments (as of 30th September 2016)	Liquidity assets	-	31%	19.9%	14.6%	24.7%
	Fixed Income	100%	69%	73.2%	75.6%	56.9%
	Equity	-	-	7%	9.8%	18.4%

The analysis covers the period from 31st October 2011 to 30th September 2016 and permits the observation of 59 monthly returns. The time series was shortened when a comparative sample of MIVs was introduced, because one of the MIVs of the comparative sample has been established in April 2012. In the latter case, the analysis covers the period from 31st May 2012 through 31st September 2016, including 46 monthly returns.

Table 2 MIVs in the Comparative Sample

Features		Name		
		Dual Return Vision Microfinance Fund	EMF Microfinance Fund AGmvK	Finethic Microfinance Fund
Legal status		SICAV (Luxembourg)	Investment Company with Variable Capital (Liechtenstein)	SICAV-SIF subject to Luxembourg Law
Inception		25th April 2012	March 2012	10th December 2006
Fund Value (as of 30th September 2016)		381.4 million	60.1 million	1531.7 million
Currency		USD	USD	USD
Distribution		Reinvesting	-	-
Geographical Allocation of portfolio		South America: 23.68%; Central America, Mexico and Caribbean: 18.67%; South Asia: 17.79%; South East Asia and Pacific: 15.02%; Central Asia: 7.50%; Caucasus: 7.29%; Sub-Sahara Africa: 5.68%; Central and Eastern Europe: 5.56%; Middle East and North Africa: 0.81%.	Latin America: 38%; Asia: 30%; Eurasia: 28%; Africa and Middle East: 4%;	Central America: 17.1%; South America: 18.8%; Central and Eastern Europe: 3.9%; Russia, Caucasus and Central Asia: 14.0%; East Asia and Pacific: 19%; South Asia: 19.2%; Middle East and North Africa: 0.4%; Sub-Saharan Africa: 7.6%
Instruments (as of 30th September 2016)	Liquidity assets	15.34%	12.0%	-
	Fixed Income	84.66%	88.0%	-
	Equity	-	-	-

In order to identify our benchmarks, we primarily looked at the mentioned literature considering the specific aim of our analysis; MSCI Emerging Markets Diversified Financial Index and EMBI+ as employed by Janda and Svárovská (2010). All the selected indexes (Table 3) refer to the emerging markets, as this is the investment area of the impact-oriented MIVs in the sample. Our benchmarks are representative of the performance of debt investments in emerging markets — considering Government, quasi-Government and corporate investments — and equity. Data are obtained from Thomson Reuters Datastream.

Table 3 Market Benchmarks

Market Benchmarks	Description
Morgan Stanley Capital International (MSCI) Emerging Markets Diversified Financial Index	proxy of performance of equity investments in financial companies in emerging markets, with the exception of Banks and Insurance
The Bank of America (BofA) Merrill Lynch Global Emerging Market Credit Index	proxy of non-sovereign external debt high yield market
BofA Merrill Lynch Global Emerging Market Sovereign Index	represents the high yield sovereign market
J.P. Morgan Emerging Bond Index (EMBI+)	measures emerging sovereign investment grade bond markets performance

The selected risk-free rate employed in the Sharpe ratio calculation is the one month Libor, with data obtained from Thomson Reuters Datastream.

For statistical reasons, we could not use social impact indexes, as they are only recently available.

3.2 Methodology

The methodology employed for the purpose of this paper, can be described according to the following research questions.

(A) Do MIVs labeled as impact investments perform in line with or below the market rate of return?

In order to answer the first question we calculated the mean monthly return, the annualized total return, the total return and the total return p.a[3] for each impact-oriented MIV, index and MIVs in the comparative sample. The selected benchmarks are significant in order to evaluate the performance of MIVs compared to the performance of traditional investments; the performance indicators of the comparative sample provide guidance with respect to alternative investments more oriented to social goals.

(B) Does risk-adjusted performance of MIVs labeled as impact investments fall in line with or below the market rate of return?

In order to answer the second research question, the Sharpe (1966) ratio[4] has been employed. The Sharpe ratio measures the average return earned in excess of the risk-free rate per unit of volatility. We estimated the Sharpe ratio for each impact-oriented MIV, for each benchmark index and for each MIV included in the comparative sample.

Risk-adjusted performance is evaluated by employing the Sharpe ratio; we did not make use of Trainor or Alpha di Jensen because the aim of our analysis is to evaluate impact-oriented MIVs performance against MRR. Therefore, the break up in alpha and beta component and evaluation of idiosyncratic and systematic risk, is not particularly useful for the purpose of this investigation.

4. Findings and Discussion

This section analyzes the main findings with regards to the two posed research questions.

(A) Do MIVs labeled as impact investments perform in line with or below the MRR?

When assessing the total return of impact-oriented MIVs against selected market benchmarks, findings show underperformance of impact-oriented MIVs (Table 4 and Figure 1). The same results have been obtained comparing annualized total return, total return p.a. and mean monthly return. In terms of annualized return, Blue Orchard Microfinance funds reached 2.1%, IIV Mikrofinzfonds 2.6%, ResponsAbility Global Microfinance Fund 2.4% and ResponsAbility Microfinance Leaders 3.5%, while returns obtained by selected benchmarks range from 5.1% of J.P. Morgan EMBI+ and 11.1% of The BofA Merrill Lynch Global Emerging Markets Credit Index.

We also found that Triodos Microfinance Fund shows an annualized total return of 5.9%, outperforming the J.P. Morgan EMBI+ (+0.8%) and representing an exception within the sample (Table 4). Figure 1 shows performance of MIVs and of selected benchmarks over time.

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[3] Mean Monthly Return = $\frac{\sum \boldsymbol{Monthly\ Return}}{\boldsymbol{n.\ observation}}$; Annualized Total Return since t_0= $\left(\frac{NAVt}{NAVt_0}\right)^{\left(\frac{1}{n}\right)} - 1$

Where:

n = number of years; t = ending value of time series; t_0 = beginning value of time series

Total Return since t_0= $\frac{NAVt}{NAVt_0} - 1$

Where:

t = ending value of time series; t_0 = beginning value of time series

Total Return p.a. = $\frac{NAVt}{NAVt_{-1}} - 1$

Where:

t = last value of the year; t_{-1} = last value of the previous year

[4] Sharpe ratio = $(R_t - R_{rft})/\sigma_p$

where: R_t = mean monthly return in the period t; R_{ft} = mean monthly return of risk-free rate in the period t; σ_p = standard deviation of R_{pt}

Table 4 Performance of Impact-Oriented MIVs vs Market Benchmarks

	Name	Total Return (since 31st October 2011)	Annualized Total Return (since 31st October 2011)	Total Return p.a.					Mean Monthly Return
				2012	2013	2014	2015	2016 (9 months)	
MIVs	Blue Orchard Microfinance Fund	10.5%	2.1%	2.6%	-1.3%	3.1%	3.2%	2.3%	0.2%
	IIV Mikrofinzfonds	13.3%	2.6%	0.2%	3.3%	4.3%	3.3%	1.5%	0.2%
	Responsibility Global Microfinance Fund	12.1%	2,4%	3.3%	3.2%	2.9%	1.5%	0.0%	0.2%
	Responsibility Microfinance Leaders	18.5%	3.5%	4.8%	3.3%	4.0%	2.9%	1.2%	0.3%
	Triodos Microfinance Fund	32.7%	5.9%	8.7%	7.2%	6.0%	3.3%	1.9%	0.5%
	Mean of MIVs impact oriented	17.2%	3.3%	3.9%	3.1%	4.1%	2.9%	1.4%	0.3%
Benchmarks	J.P. Morgan Embi+ Index	27.5%	5.1%	13.5%	-9.5%	10.1%	-2.2%	13.7%	0.4%
	The BofA Merrill Lynch Global Emerging Markets Sovereign Index	47.9%	8.3%	21.5%	-0.3%	1.7%	4.7%	14.7%	0.7%
	The BofA Merrill Lynch Global Emerging Markets Credit Index	67.8%	11.1%	30.1%	5.0%	-5.3%	11.8%	16.9%	0.9%
	MSCI Emerging Markets Diversified Financial Services Index	45.2%	7.9%	33.0%	1.9%	18.5%	-9.5%	6.1%	0.7%

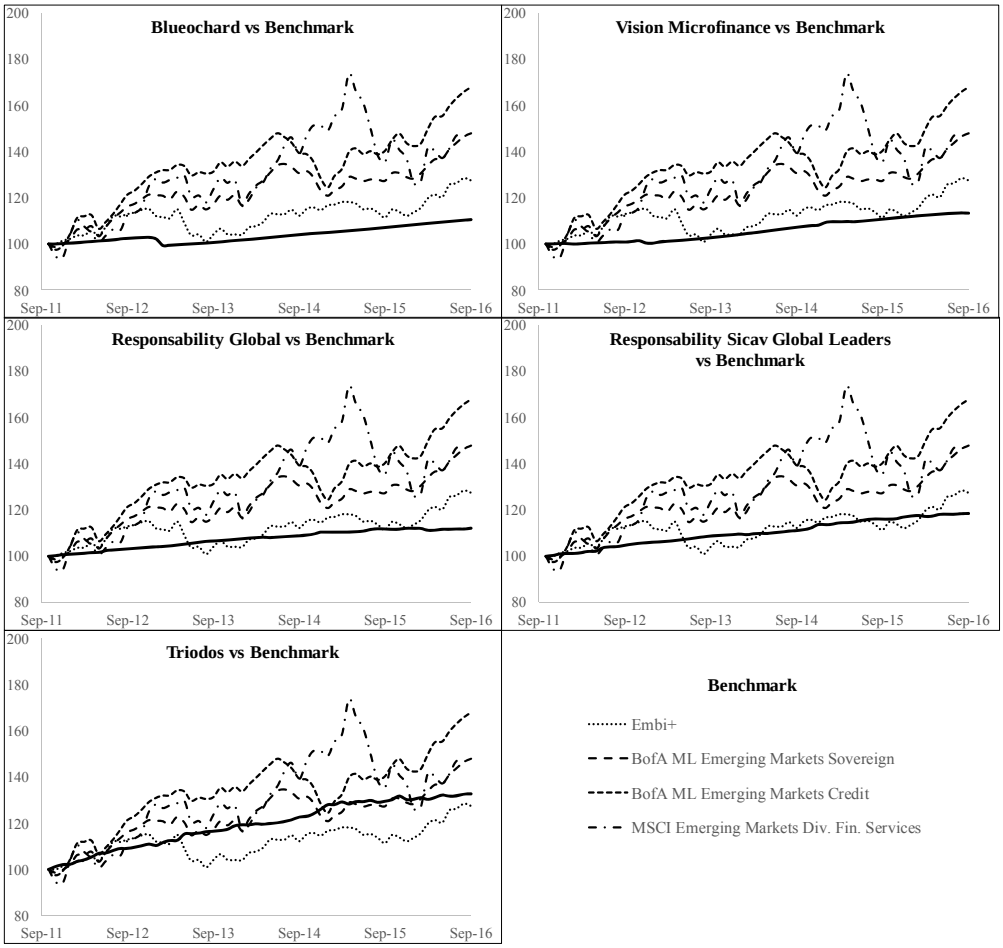

Figure 1 Performance of Impact-Oriented MIVs Against Market Benchmarks

Comparing the mean of annualized return of impact-oriented MIVs with benchmark performance, it is possible to confirm that MIVs underperform the MRR.

On the contrary, data show that MIVs outperform the comparative sample, obtaining +0.4% throughout the observed period and +0.1% in term of annualized return (Table 5).

Figure 2 describes performance of MIVs and of the comparative sample over time.

Table 5 Total Return of Impact-Oriented MIVs vs Comparative Sample

Name	Total Return (since 31st May 2012)	Annualized Total Return (since 31st May 2012)	Total Return p.a.				Mean Monthly Return
			2013	2014	2015	2016 (9 months)	
Mean of impact oriented MIVs	14.4%	2.8%	3.1%	4.1%	2.9%	1.4%	0.3%
Mean of comparative sample MIVs	13.9%	2.7%	3.6%	3.7%	2.2%	1.6%	0.3%
delta	0.4%	0.1%	-0.5%	0.3%	0.7%	-0.2%	0.0%

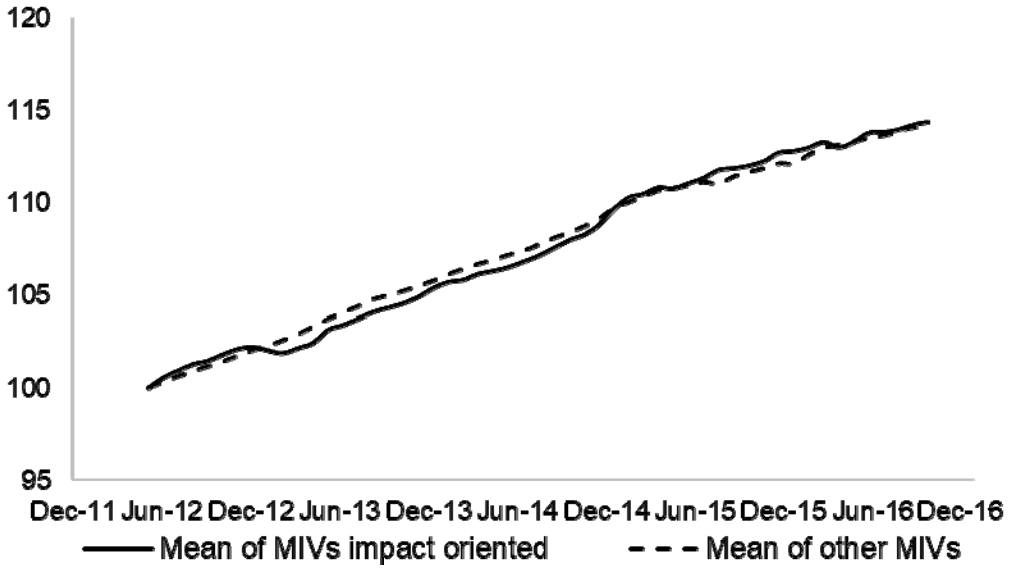

Figure 2 Total Return of Impact-Oriented MIVs against Comparative Sample

(B) Does risk-adjusted performance of MIVs labeled as impact investments fall in line with or below the MRR?

Considering risk adjusted performance, the analysis shows that the Sharpe ratio of impact-oriented MIVs outperforms all the Sharpe ratio of selected benchmarks (Table 6); thus, assuming the same level of risk, impact-oriented MIVs obtain highest financial return. This is due to the lower volatility that characterizes impact-oriented MIVs. In contrast, impact-oriented MIVs seem to repay the risk less than other MIVs in the comparative sample (Table 7); in other terms, investors who intentionally aim to achieve social impact may sacrifice the financial return. This argument suggests the need for balancing the financial sacrifice incurred by impact-oriented investors, with the risk and the social impact profile of MIVs. Future research can investigate this aspect, in order to verify whether the moderate financial performance can be balanced by higher social returns.

Table 8 synthesizes results of the performance analysis carried out to assess whether listed impact-oriented MIVs obtain performance in line with or below the MRR, as suggested by the OECD (2015).

Table 6 Sharpe Ratio of Impact-Oriented MIVs vs Sharpe Ratio of Benchmark Indexes (31st October 2011-30th September 2016)

	Name	Sharpe ratio	Monthly volatility	Annualized volatility
MIVs	Blue Orchard Microfinance Fund	0.365	0.0041	0.0143
	IIV Mikrofinzfonds	0.770	0.0025	0.0087
	Responsability Global Microfinance Fund	0.763	0.0023	0.0079
	Responsability Microfinance Leaders	0.883	0.0030	0.0105
	Triodos Microfinance Fund	0.731	0.0063	0.0219
	Mean of MIVs	1.302	0.0019	0.0066
Benchmarks	J.P. Morgan Embi+ Index	0.202	0.0204	0.0707
	The BofA Merrill Lynch Global Emerging Markets Sovereign Index	0.313	0.0214	0.0740
	The BofA Merrill Lynch Global Emerging Markets Credit Index	0.359	0.0249	0.0861
	MSCI Emerging Markets Diversified Financial Services Index	0.158	0.0451	0.1562

Table 7 Sharpe Ratio of Impact-Oriented MIVs vs Sharpe Ratio of Comparative Sample (31st May 2012-31st September 2016)

Name	Sharpe ratio	Monthly volatility	Annualized volatility
Mean of impact-oriented MIVs	1.211	0.020	0.068
Mean of the comparative sample	1.947	0.012	0.041
Delta	-0.737	0.008	0.027

Table 8 Findings at a Glance

Impact-oriented MIVs underperform market benchmarks	Sharpe ratio of impact-oriented MIVs outperform market benchmarks
Impact oriented MIVs outperform the comparative sample of MIVs	Sharpe ratio of impact-oriented MIVs underperforms the Sharpe ratio of the comparative sample.

Impact-oriented MIVs meet the OECD criteria when considering their total return with respect to traditional investments, while they outperform the comparative sample. By contrast, impact-oriented MIVs do not match the OECD requirement if we consider their risk-adjusted performance with respect to traditional investments, while they underperform the comparative sample.

The above results allow us to reject Allman and De Nogales' arguments (2015) suggesting that investing only in a subset of market instruments can compromise financial return.

5. Conclusion

The aim of this paper is to assess whether impact-oriented MIVs may foster economic and financial stability comparing whether impact-oriented MIVs perform in line with, or below, the MRR.

Results show that, if we look at financial performance, impact-oriented MIVs meet the OECD criteria. According to our hypothesis, this means that they offer a higher contribution to economic stability than traditional investments.

When risk-adjusted performance measures are taken into consideration, impact-oriented MIVs outperform the market; the Sharpe ratio of Impact-Oriented MIVs is higher than the Sharpe of traditional market benchmarks, due to the lower volatility that allows investors to obtain more stable performance in the observed period. This

may imply that impact-oriented MIVs could offer a greater contribution to financial stability than traditional investments.

We tested our results with a comparative sample of alternative MIVs, aiming at social impact, but not labeled as impact-oriented. Results show that impact-oriented MIVs outperform the comparative sample, while their risk-adjusted performance is lower than that of alternative MIVs. This suggests that impact-oriented MIVs offer a lower contribution, than alternative MIVs, both to economic and financial stability.

The analysis showed that the market offers three alternative investment strategies to investors: (i) traditional investments, (ii) impact-oriented investments, (iii) investments aiming at social impact, but not labeled as impact-oriented — balancing different financial returns, risks and social goals, and different potential impact on economic and financial stability.

Results drive some policy considerations. Even though a lower return is likely to facilitate financial inclusion and sustainable growth, thanks to lower interest rate applied to microcredits, the level of financial return remains essential to attract institutional investors, like banks, insurance companies and pension funds. Restricting potential investors to patient investors finds some constrains in the need for market growth.

Governments, development agencies and philanthropic institutions are more open to invest in less profitable and high risk shares, while institutional investors are more open to profitable and low risk investments. This suggests that impact-oriented MIVs — in order to attract investors with different profiles of risk and return — should associate their investments to a more sophisticated tranching of the risk. Our findings support the theory that structured funds seem to represent the most suitable solution[5]; more in general, structured finance, and in particular financial instruments allowing the distribution of risks among different typologies of investors — profit and no-profit oriented — may facilitate the funding of impact-oriented MIVs and, consequently, the fostering of a more stable and sustainable growth.

However, the analysis of risk-adjusted performance of Impact-oriented MIVs shows that they are less volatile than traditional investments. Thus, the reduced volatility, and the protection against market turmoil, can attract less risky-oriented investors.

Future research may advance this analysis in different directions, three of which already now seem of some significance. In the short future, it will be worth comparing the performance of impact-oriented MIVs with the emerging market sustainability indexes — such as the MSCI ACWI Sustainable Impact Index, listed only since November 2015 — and for which available time series are currently too short to be employed. Future works can also enhance analysis of impact-oriented MIVs risk-return performance using alpha Jensen and Treynor, as well as multifactor models. Finally, analysis of financial return and risk-adjusted return should be assessed in relationship with different dimensions of social performance measurements, in terms of both outcomes and outreach.

However, that future analysis will gain greater significance as the reference sample is now affected by the reduced size of the market.

References

Allman K. A. and De Nogales X. E. (2015). *Impact Investment. A Practical Guide to Investment Process and Social Impact Analysis*, Wiley Finance.

Cabinet Office of the UK Government (2013). "Achieving social impact at scale: Case studies of seven pioneering co-mingling social investment funds", available online at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/

[5] A deeper analysis of capital structure of impact-oriented funds can be found in Chiappini (2017).

file/193697/2900897_HMGCO_Co-mingling_acc.pdf.

Cambridge Associates, & GIIN (2015). "Introducing the impact investing benchmark", available online at: https://thegiin.org/assets/documents/pub/Introducing_the_Impact_InvestingBenchmark.pdf.

Clark C., Emerson J. and Thorley B. (2013). "Impact investing 2.0: The way forward — Insight from 12 outstanding funds", available online at: https://www.pacificcommunityventures.org/wp-content/uploads/sites/6/2015/07/2013FullReport_sngpg.v8.pdf.

Chiappini H. (2017). *Social Impact Funds: Definition, Assessment, Performance*, Palgrave Macmillan, London.

Davies R., Haldane A. G., Nielsen M. and Pezzini S. (2014). "Measuring the cost of short-termism", *Journal of Financial Stability*, Vol. 12, pp. 16-25.

Emerson J. and Spitzer J. (2007). "From fragmentation to function: critical concepts and writings on social capital markets' structure, operation and innovation", Working Paper, Oxford: Skoll Centre for Social Entrepreneurship.

GIIN (2012). "Diverse perspectives, shared objective: Collaborating to form the African Agricultural Capital Fund".

Goodman P. (2006). *Microfinance Investment Funds: Objectives, Players, Potential in Microfinance Investment Funds*, Springer, pp. 11-45.

Galema R., Lensink R. and Spierdijk L. (2011). "International diversification and microfinance", *Journal of International Money and Finance*, Vol. 30, No. 3, pp. 507-515.

Gonzalez A. (2007). "Resilience of Microfinance Institutions to national macroeconomic events: An econometric analysis of MFIs asset quality", Mix discussion paper No.1, Microfinance Information Exchange, Washington.

Harji K. and Jackson E. T. (2012). "Accelerating impact: Achievements, challenges and what's next in building the impact investing industry", New York, NY: The Rockefeller Foundation, available online at: https://www.rockefellerfoundation.org/app/uploads/AcceleratingImpactFullSummary.pdf.

Höchstädter A. K. and Scheck B. (2015). "What's in a name: An analysis of impact investing understanding by academics and practitioners", *Journal of Business Ethics*, Vol. 132, No. 2, pp. 449-475.

Janda K., Rausser G. and Svárovská B. (2014). *Can Investment in Microfinance Funds Improve Risk-Return Characteristics of A Portfolio?. Technological and Economic Development of Economy*, pp. 673-695.

Janda K. and Svárovská B. (2010). "Investing into microfinance", *Journal of Business and Management*, Vol. 11, No. 3, pp. 483-510.

La Torre M. and Chiappini H. (2016). "Microfinance impact vehicles: How far are they from OECD social impact investment definition?", in: Carbò V. S., Cuadros Solas P. J., & Rodriguez Fernandez F. (Eds.), *Bank Funding, Financial Instruments and Decision Making in the Banking Industry*, Palgrave MacMillan, London.

Moore M. L., Westley F. R. and Nicholls A. (2012). "The social finance and social nexus", *Journal of Social Entrepreneurship*, Vol. 3, No. 2, pp. 115-132.

Mudaliar A., Schiff H., Bass R. and Dithrich H. (2017). "2017 Annual investors survey", available online at: https://thegiin.org/assets/GIIN_AnnualImpactInvestorSurvey_2017_Web_Final.pdf.

Mudaliar A. and Barra L. (2015). "ImpactBase snapshot. An analysis of 300+ impact investing funds", available online at: https://thegiin.org/assets/documents/pub/ImpactBaseSnapshot.pdf.

Nicholls A. (2010). "The institutionalization of social investment: the interplay of investment logics and investor rationalities", *Journal of Social Entrepreneurship*, Vol. 1, No. 1, pp. 70-100.

OECD (2015). "Social impact investment: Building the evidence base", Paris, available online at: http://www.oecd.org/sti/ind/social-impact-investment.pdf.

Sharpe W. F. (1966). "Mutual fund performance", *Journal of Business*, Vol. 39, No. 1, pp. 119-138.

SIIT (2014). "Impact investment: the invisible heart of markets", London, available online at: http://www.socialimpactinvestment.org/.

Trelstad B. (2009). "The nature and type of social investors", Acumen Fund Investors.

Vecchi V., Cusumano N. and Brusoni, M. (2015). "Impact investing: Beyond CSR and social enterprise", available online at: http://position_paper_impact_investing.pdf.