

# IMPACT ALPHA

## 初探研究報告

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報告人:游苙好

# IMPACT ALPHA 定義

**In impact investing, focusing on impact creation will enhance financial performance. Therefore, impact investments can perform in line with - and sometimes better than - relevant benchmarks.**

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## 研究問題

試圖透過學術研究、產業報告、  
問卷調查來了解IMPACT  
ALPHA是否存在？

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# 影響力投資研究的限制

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- ◆ 目前尚無提供影響力投資相關數據的第三方資料提供商。
- ◆ 對於影響力基金的定義分歧。
- ◆ 學術和產業報告都有**Limited sample size**、**Selection bias**、**Survivorship bias**等的問題。

# 結論

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- ◆ 近三年關於IMPACT ALPHA的學術研究成果分歧，尚無法斷定IMPACT ALPHA是否存在。
- ◆ 從2023 GIIN投資人調查顯示，多數Market-rate影響力基金仍可達到預期報酬(IMPACT ALPHA)。
- ◆ TIIA問卷對象表示IMPACT ALPHA背後因子來自透過提供新的產品/服務/市場來解決SDG挑戰、降低風險等等。

# Outline

- 學術研究

1) Long-run returns to impact investing in emerging markets and developing economies(2020)

2) Impact Investing(2020)

3) The Risk and Return of Impact Investing Funds(2023)

- GIIN產業報告

- 問卷調查

- 結論

# NBER報告:IFC長期投資績效優於市場報酬

- ◆ 論文名稱: Long-run returns to impact investing in emerging markets and developing economies
- ◆ 作者: Shawn Cole(Harvard), Martin Melecky(World Bank), Florian Mölders(IFC), Tristan Reed(World Bank)
- ◆ 發佈時間:2020
- ◆ 研究問題: 以International Finance Corporation(IFC)自1960年的股權投資表現為研究對象，來探究影響力投資表現成果及其背後影響因子

Note: IFC charges market-based rates for its loans and seeks market returns on equity investment, except for “blended finance” projects  
Source:NBER.

# Methodology

- ◆ **樣本:**自1956年IFC成立以來至2019年6月30日的所有2,509筆股權投資（投資於公司或基金）的完整現金流資料。
- ◆ **幣別:**美元
- ◆ **報酬衡量方式:** PME(Public Market Equivalent)以及Total value to paid-in capital(Money Multiple)

$$PME = \frac{\sum_t \frac{dist(t)}{1+R(t)}}{\sum_t \frac{cont(t)}{1+R(t)}}$$

$$TVPI = \frac{\sum_t dist(t)}{\sum_t cont(t)}$$

Note: 樣本包含所有投資(ex:write-off)來避免生存者偏誤  
Source: NBER



# IFC長期投資績效優於指數

**TABLE III: Financial performance of the IFC private equity portfolio as of June 30, 2019.**

The public market equivalent (PME) is measured following Kaplan and Schoar (2005) as the ratio of cash in (disbursements) to cash out (client capital calls), where each series is discounted according to a public market index. The discount rate is given by the total return of the index, including dividends and price appreciation. Cash flows and the index value are observed on the last date of each month. For investments with non-zero holding valuation, the fair value is treated as a positive cash flow in June 30, 2019, as if the investment is sold on that date. An investment is considered fully realized if it has zero holding valuation.

	Index Start Date	Financial performance of the portfolio of all equity investments with vintage years including and since...					
		1961	1970	1980	1990	2000	2010
PME vs. MSCI Emerging Markets	1988				1.3	1.18	0.98
PME vs. MSCI World	1970		1.21	1.26	1.23	1.12	0.78
PME vs. S&P 500	1957	1.15	1.13	1.16	1.14	1.07	0.7
Total value to paid-in (TVPI)		1.71	1.70	1.69	1.61	1.47	1.15
Number of investments		2,509	2,429	2,304	2,053	1,433	803
Share of investments fully realized		69.20%	68.20%	66.40%	62.50%	47.50%	25.80%

Source: NBER

# Three Key findings

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- ◆ 長期報酬表現較佳
- ◆ 報酬表現與市場大小和金融市場開放程度有關
- ◆ 報酬表現受GDP以及匯率影響

# “Impact Investing”報告:影響力投資者願意為投資於雙目標基金而犧牲部分財務報酬

- ◆ 論文名稱: Impact Investing
- ◆ 作者: Brad M. Barber (UC Davis), Adair Morse (Haas), Ayako Yasuda (NBER)
- ◆ 發佈時間: 2020
- ◆ 研究問題: 投資人是否會願意接受較低的預期財務報酬，來得到正面外部性?

# Methodology

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- ◆ **樣本:**作者同時利用Preqin資料庫以及人工選出自1995~2014年符合被視為影響力基金條件的159檔基金(VC或Growth Equity)。
- ◆ 採用Hedonic pricing framework of WTP(Willingness-To-Pay) for impact:

$$WTP_i = \frac{\partial \mathbb{E}[r_j]}{(\partial \text{IMPACT}_j)_i} = \frac{(\partial U_{ij} / \partial \text{IMPACT}_j)_i}{\partial U_{.j} / \partial \mathbb{E}[r_j]} = \frac{\delta_i}{\beta}. \quad (5)$$

# 影響力基金表現略低於傳統基金

**Table 1**

Fund descriptive statistics, 1995 to 2014.

This table presents fund summary statistics for traditional funds (left columns) and impact funds (right columns). Capital commitment is the average capital commitment across investors within a fund. IRR is the final or last observed internal rate of return for the fund. VM is the fund's value multiple. Imputed PME (public market equivalent) is the fund's PME imputed using regression coefficients in Table IA.IV in [Harris et al. \(2014\)](#) and the fund's available IRR and VM. Percentile rank is the fund's percentile rank relative to similar cohort funds (year, region, and fund type). In Panel B, we present the geography focus of fund investments. In Panel C, we present the industry focus of fund investments. Funds can have multiple geography and industry focuses.

	Traditional VC funds				Impact funds			
	N	Mean	Median	Std. dev.	N	Mean	Median	Std. dev.
<i>Panel A: Descriptive statistics</i>								
Vintage year	4500	2005.4	2006.0	5.26	159	2006.7	2008.0	4.44
Fund size (\$mil)	4000	204.6	102.0	300.2	147	129.6	83.00	147.3
Capital commitment (\$mil)	2717	22.21	14.60	33.85	125	27.09	15.00	32.88
IRR (%)	1207	11.59	7.40	32.06	76	3.70	6.35	15.17
VM - value multiple	1484	1.51	1.22	1.94	91	1.17	1.10	0.56
Imputed PME	1147	1.29	1.09	1.29	65	1.00	0.97	0.42
Percentile rank	1530	0.49	0.50	0.30	94	0.34	0.28	0.30
Fund sequence number	4500	3.95	2.00	5.63	159	3.88	2.00	5.91

# HEC報告:影響力基金市場風險以及總報酬較低

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- ◆ 論文名稱: The Risk and Return of Impact Investing Funds
- ◆ 作者: Jessica Jeffers(HEC Paris), Tianshu Lyu(Yale School of Management), Kelly Posenau(Cornell University)
- ◆ 發佈時間: 2023
- ◆ 研究問題: 分析影響力基金的市場風險和風險調整後報酬

# Methodology

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◆ **樣本:**數據來源為Impact Finance Research Consortium (IFRC)、Preqin、Burgiss資料庫。樣本包含94個Market-rate影響力基金，Vintage年份為1999年至2015年，而Net contribution/Net distribution/NAV的現金流數據為1999年至2021年。

◆ 使用**Public Market Equivalent(PME)**和**Generalized public market equivalent(GPME)**的差異來了解Beta市場風險。

$$PME_{KS} = \frac{\sum_t \frac{distribution_t}{1+R_{mt}}}{\sum_t \frac{contribution_t}{1+R_{mt}}}$$

◆ **Benchmark group:** 1)Non-impact funds，2)US Based VC。

# 影響力投資的Beta和總報酬較低

- ◆ **影響力投資的Beta低**：和非影響力私募基金以及VC相比，影響力基金對於次級股票市場的波動敏感程度較低(Lower beta)，因此作者推斷可以透過影響力投資來降低市場風險。
- ◆ **影響力基金的總報酬低於兩組Benchmark group**：相對於次級市場，影響力基金的相對表現不佳，每投資1美元的損失為-0.47美元；投資非影響力基金/VC為每投資1美元的損失為-0.33/-0.43美元。但再調整市場風險後，投資影響力基金的損失縮小至-0.015美元。



## 2023 GIIN 影響力投資者調查

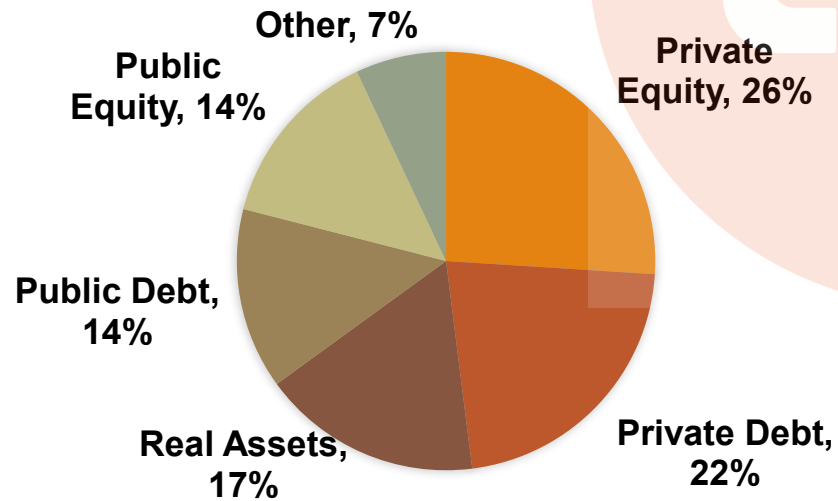
與多家產業報告相比(ex. Cambridge Associate, Symbiotics, McKinsey, Bain etc)，GIIN研究報告最全面、數據量最多、易取得，因此以GIIN Impact Investor Survey來探查IMPACT ALPHA

# Sample Profile

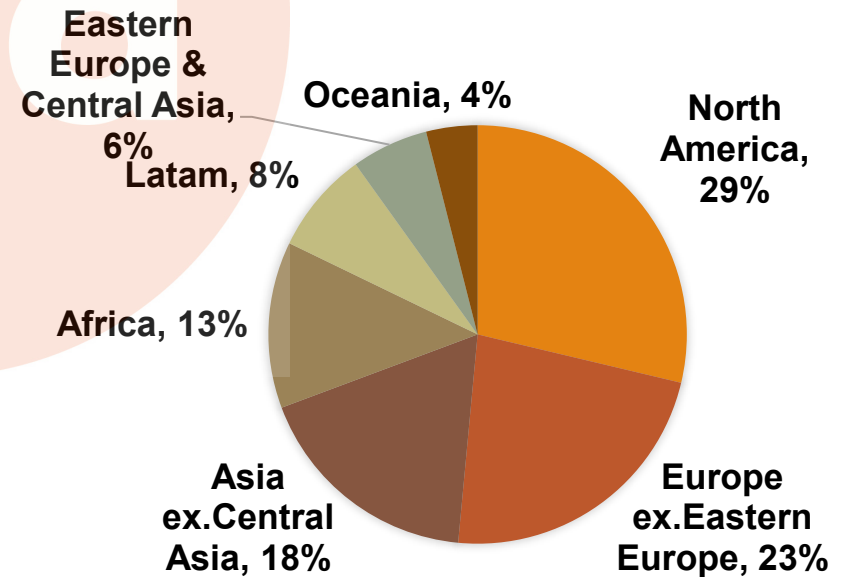
◆ 樣本:305家

◆ AUM: 371 \$Bn

INVESTOR ALLOCATIONS ACROSS ASSET CLASSES



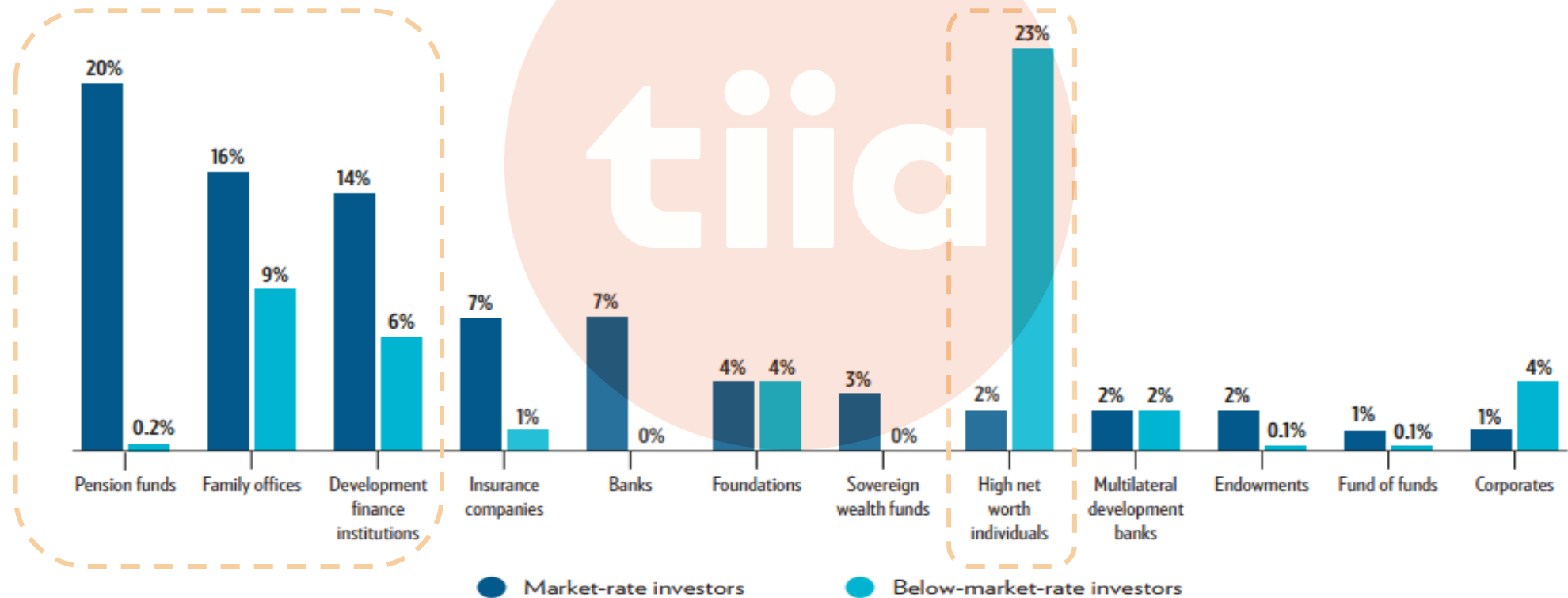
INVESTOR ALLOCATIONS ACROSS ASSET CLASSES



# 退休基金/家族辦公室/開發銀行為 Market-rate 影響力基金主要資金來源

Figure 10: Sources of capital for investment managers by target returns

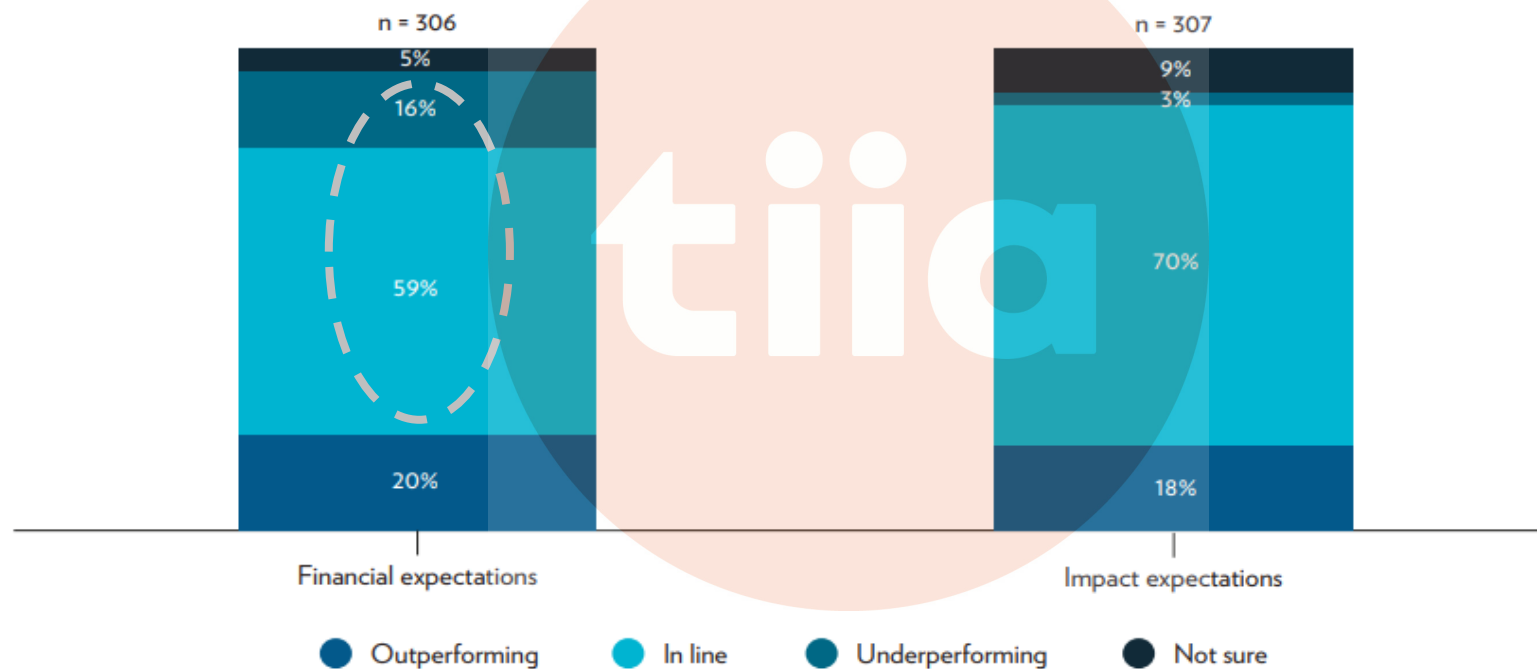
n = 218; AUM = USD 152 billion



Source: 2023 GIINSight – Impact Investing Allocations, Activity & Performance report

# 59%的影響力基金可以達到預期報酬， 16%的基金能超出預期報酬

FIGURE 12: Financial and impact performance relative to expectations



Note: Excludes two organizations that did not share financial performance relative to expectations and one organization that did not disclose impact performance relative to expectations.

# 實際VS.預期表現因投資者類型而異

Market-  
rate  
investor

只有 11%DM投資者與 22%EM投資者表示表現不如原先預期。

Below-  
market-  
rate  
investor

<30%的投資人表示表現不如預期。

# IMPACT ALPHA Questionnaire

- ◆ 期間: 6/17~9/10
- ◆ 目標對象: Impact funds
- ◆ 聯繫機構: 34家
- ◆ 聯繫對象: 47人
- ◆ 回覆問卷數量: 10份

1. Allianz
2. Lok Capital
3. Big Society Capital
4. Sarona
5. Leapfrog
6. Blue Orchard
7. responsAbility
8. TPG Rise
9. Triodos
10. WHEB

# Limitations

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- ◆ Concentration bias
- ◆ Limited sample size
- ◆ Selection bias



# Question list

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- 1. Based on your experience, how often have you observed IMPACT ALPHA?**  
0%(Never) below 1/3(Seldom) between 1/3 and 2/3(Often) more than 2/3(Always)
- 2. Is the IMPACT ALPHA phenomenon more prevalent than in the past? If so, why?**
- 3. Drawing from your experience, what are the primary drivers of IMPACT ALPHA? Please select the top four drivers.**  
Open-up new business opportunities by providing solutions for SDG challenges with new products/services/markets  
Reduce risks  
Attract and retain talents  
Keep pace with policy developments and secure social license  
Enhance branding and storytelling  
Better stakeholder relations  
Foster greater collaboration and supports from like-minded people  
Other, please specify: \_\_\_\_\_
- 4. Based on your practical experience, what are the main obstacles in delivering IMPACT ALPHA?**



# Question list

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Are you interested in exploring opportunities for impact investments in Taiwan?

Yes  No  Other, please specify: \_\_\_\_\_

A. In fundraising?

Yes  No

B. In making investments?

Yes  No

C. In collaborating with Taiwanese asset managers?

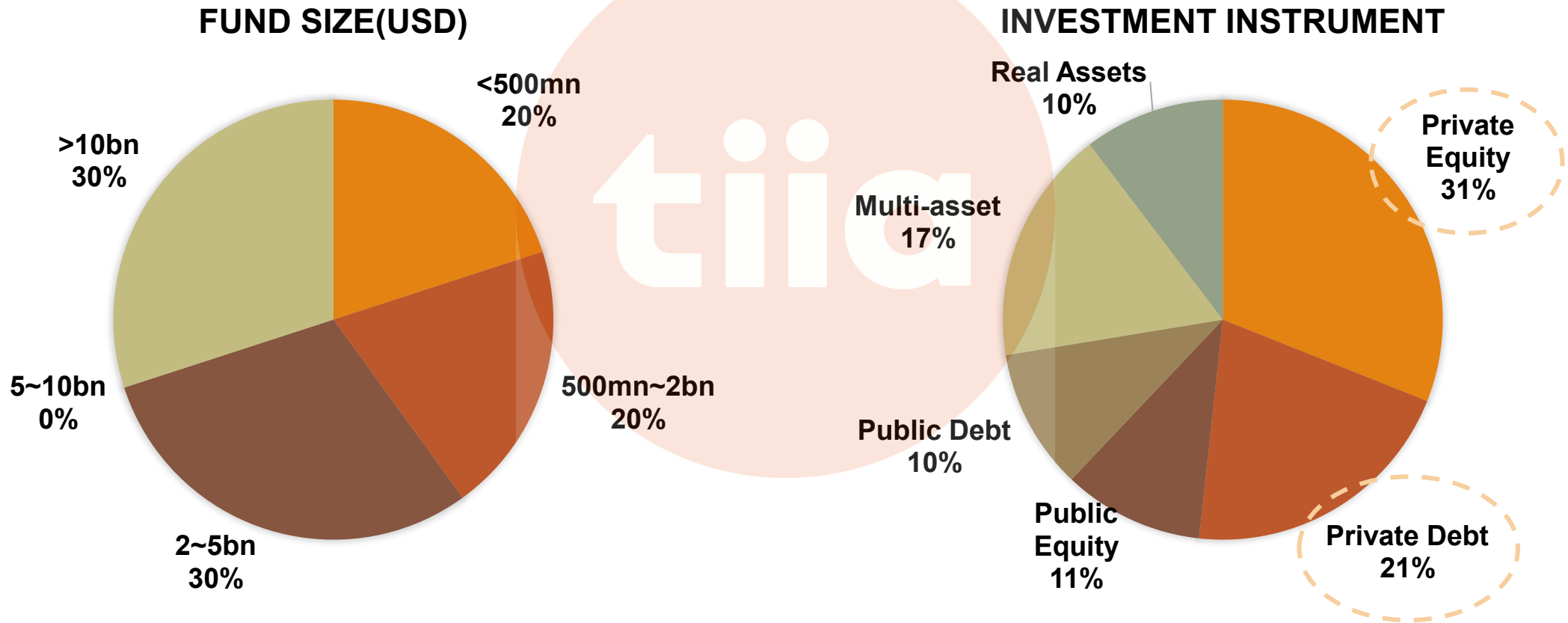
Yes  No

D. Other possibilities?

Please specify: \_\_\_\_\_

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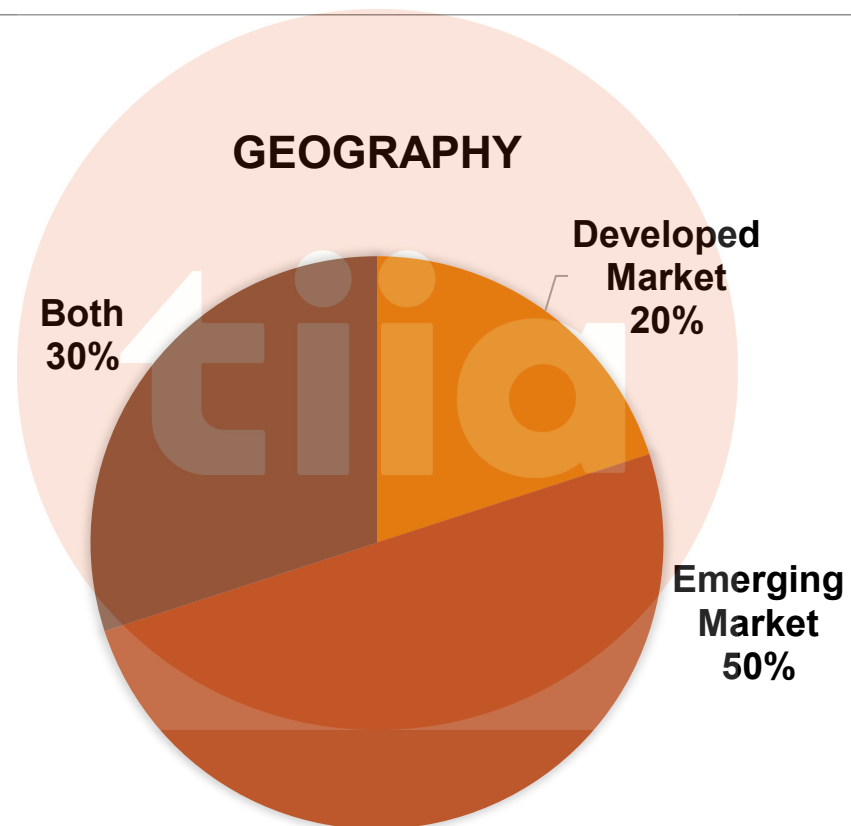
# 問卷對象基本介紹



Source: TIIA IMPACT ALPHA Questionnaire

# 投資區域聚焦新興市場

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# 乾淨能源/醫療/普惠金融為前三大影響力投資主題

Theme	Total
Clean energy and climate action	10
Healthcare	10
Financial Inclusion	9
Agriculture and food	8
Affordable housing and sustainable cities	7
Education	7
Biodiversity	6
Infrastructure	6
Water	6
Gender	5
Forest	3

# 多數問卷對象表示經常看到IMPACT ALPHA的機會

## 1. Based on your experience, how often have you observed IMPACT ALPHA?

**0%(Never)**

**Below 1/3(Seldom)**

**Between 1/3 and 2/3(Often)**

**More than 2/3**

Big Society Capital

Allianz, Lok Capital, Sarona,  
responsAbility, TPG Rise,  
Triodos, WHEB

Leafrog, Blue Orchard

# 多數問卷對象表示IMPACT ALPHA的現象比以前常見

## Is the IMPACT ALPHA phenomenon more prevalent than in the past? If so, why?

Allianz	Yes
Lok Capital	Yes, the Impact Alpha phenomenon is indeed more prevalent today than in the past
Big Society Capital	I don't know. I think there are more funding mechanisms that support the generation of revenues and investor returns through delivery of public goods.
Sarona	Yes
Leapfrog	Yes
Blue Orchard	Yes
responsibility	Yes
TPG Rise	Yes
Triodos	No
WHEB	Probably true

# 原因來自對社會/環境問題的警覺提高、投資者喜好的轉變、財務表現的證明、法規支持、世代變革(Gen Z)

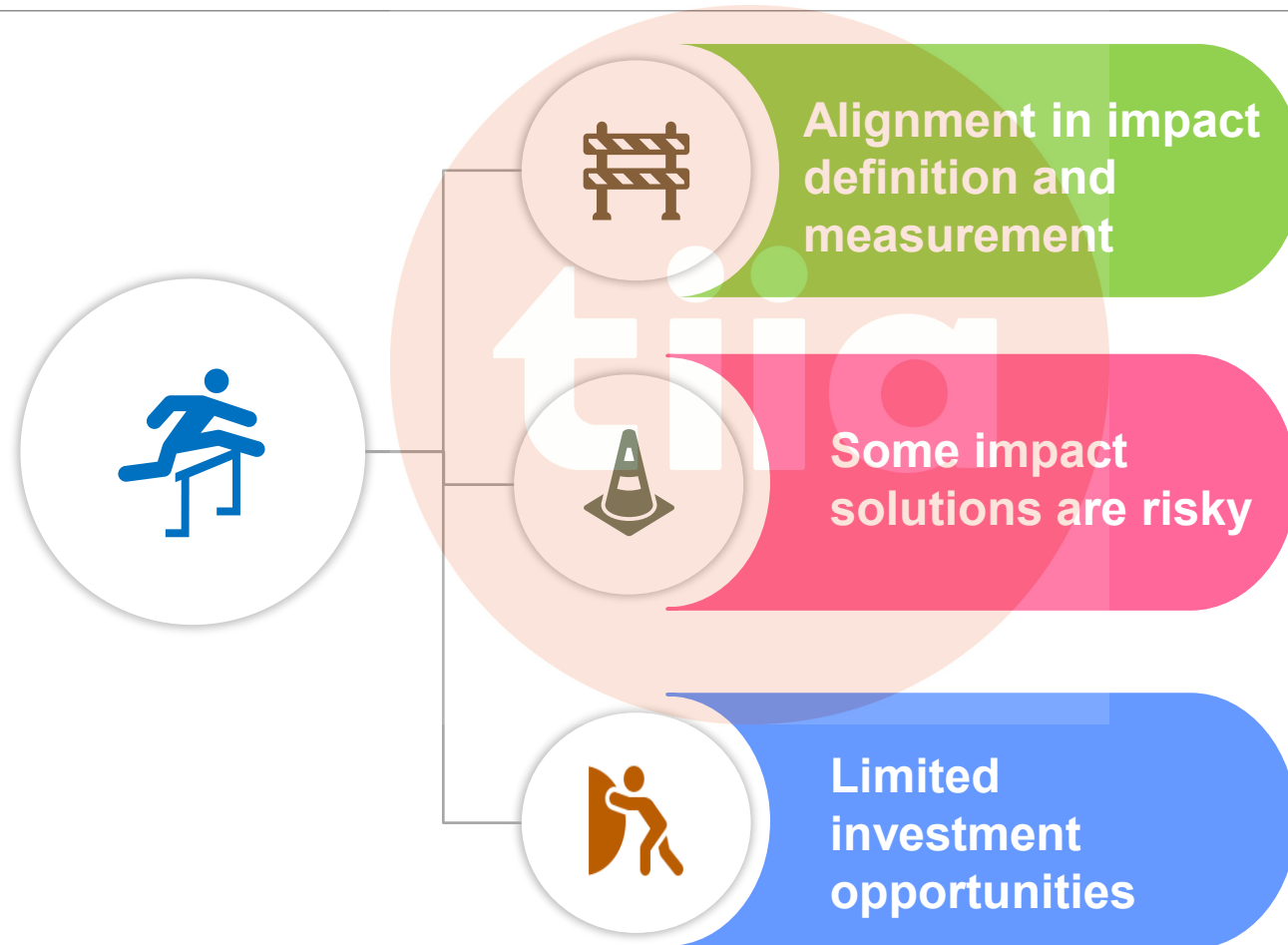
2. Is the IMPACT ALPHA phenomenon more prevalent than in the past? If so, why?	
<b>Allianz</b>	<p>1) Growing awareness of issues like climate change and social inequality, fueled by recent climate events and the COVID pandemic, coupled with increased regulatory emphasis on sustainability and consumer demand for eco-friendly products, is creating new investment opportunities.</p> <p>2) More capital is flowing into impact investing, encouraging entrepreneurs who may not have considered private equity to seek funding for business expansion.</p>
<b>Lok Capital</b>	heightened awareness of social and environmental issues, shifting investor preferences, evidence of financial performance, regulatory support, generational shifts, innovation, and increased corporate engagement in sustainability
<b>Sarona</b>	more regulations, capital, investors, strategies, getting focus from traditional investors/financial institutions.
<b>Leapfrog</b>	As impact investing gains maturity and broader adoption, there are increasing opportunities for impact alpha. This is fueled by growing recognition of the value of such investments and the rapid expansion of emerging and developing markets, especially in the context of impact investing.
<b>Blue Orchard</b>	Global challenges have spurred investors to seek companies making a positive societal impact. This has made impact investing more accessible and widespread, offering a greater array of investment options.
<b>TPG Rise</b>	More big players have joined in this market. A wide range of strategies.
<b>Triodos</b>	Before 2022, companies with strong impact credentials saw rising demand, influenced by ESG/Impact investments and limited availability in certain sectors. In 2022, these companies experienced a sell-off due to factors like higher interest rates, and skepticism about ESG/Impact has lessened.
<b>WHEB</b>	Historically, fewer impact investors meant more chances to discover undervalued stocks that hadn't yet reflected the growth potential driven by impact. In recent years, popular ESG/impact companies trade at a premium due to heightened interest from impact investors.

# 透過提供新的產品/服務/市場來解決 SDG挑戰為IMPACT ALPHA的驅動因素

3.What are the primary drivers of IMPACT ALPHA?	
Driver	Total
Open-up new business opportunities by providing solutions for SDG challenges with new products/services/markets	9
Reduce risks	6
Attract and retain talents	5
Keep pace with policy developments and secure social license	4
Foster greater collaboration and supports from like-minded people	3
Enhance branding and storytelling	3
Better stakeholder relations	3



# 在達到IMPACT ALPHA路上仍有挑戰



# 因Mandate先天限制，多數問卷對象表示在臺灣探索影響力投資的機會較低

1. Are you interested in exploring opportunities for impact investments in Taiwan?			
Asset Manager	Yes	No	Other
Allianz	V		
Lok Capital			We are currently operating under the mandate of investing in opportunities only in India.
Big Society Capital		V	
Sarona			Taiwan is a developed country to us, by our definition, so we aren't keen to do investments in Taiwan.
Leapfrog		V	
Blue Orchard	V		
ResponsAbility	V		
TPG Rise		V	
Triodos			depends a bit on the practical constraints that there are to investing in Taiwan. We currently invest via ADRs.
WHEB			Potentially but our firm does not have a big exposure in the region

# 樂於在台灣募資

2. Are you interested in fundraising in Taiwan?		
Asset Manager	Yes	No
Allianz	V	
Lok Capital	V	
Big Society Capital		V
Sarona	V	
Leapfrog	V	
Blue Orchard	V	
ResponsAbility	V	
TPG Rise		
Triodos		
WHEB	V	

# 結論

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# Implication

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## 資產管理公司

1. 區域: 新興市場表現優於成熟市場
2. 投資期限: 長期優於短期

## 本土機構投資人

1. 影響力基金表現分化，需慎選基金
2. 設定正確的投資預期
3. 國際合作

## 學術研究者

1. 仍缺少較全面的影響力財務表現研究
2. 是否特定產業表現較佳?



**Thank you**

# Appendix: IFC Equity investment performance by region

**APPENDIX C: Equity investment financial performance in emerging market and developing economies.** In the weighted average, each investment is weighted by the share of cumulative contributions in that vintage year. Before calculation of averages, variables have been winsorized at the 99th percentile, for consistency with the sample used in the regressions. Realized investments are those with zero holding valuation as of June 30, 2019.

Vintage Years	Investments	Realized Investments	Duration**	PME S&P 500			TVPI		
				Average	Median	Weighted Average	Average	Median	Weighted Average
1961-69	80	100.0%	17.4	1.44	1.02	1.35	3.18	1.84	2.75
1970-79	125	100.0%	14.0	0.90	0.51	0.94	3.22	1.37	3.51
1980-89	251	98.8%	11.5	0.98	0.45	1.17	2.90	1.21	3.30
1990-99	620	97.3%	9.3	1.34	0.65	1.39	2.47	1.19	2.54
2000-09	630	75.1%	8.2	1.60	0.87	1.84	2.32	1.26	2.59
2010-19	803	25.8%	4.5	0.81	0.74	0.84	1.23	1.00	1.25
ALL	2,509	69.1%	8.2	1.18	0.72	1.26	2.14	1.13	2.56

\*\*Duration is defined as the average years between first and final cash flow or positive valuation



# Appendix: IFC Equity investments by region and sector

**APPENDIX B: Equity investments by region and sector.** Regions follow the World Bank Group regional classifications as of 2019. Collective investment vehicles are private equity funds managed by an institution other than IFC.

	1961-69	1970-79	1980-89	1990-99	2000-09	2010-19	TOTAL
<b>Panel A) Count of investments by region</b>							
Latin America and Caribbean	34	33	71	143	119	158	558
East Asia and Pacific	7	29	53	97	122	154	462
Sub-Saharan Africa	13	20	58	117	95	149	452
South Asia	11	7	27	81	106	147	379
Europe and Central Asia	5	15	13	123	118	77	351
Middle East and North Africa	6	16	21	51	44	65	203
World	4	5	8	8	26	53	104
TOTAL	80	125	251	620	630	803	2,509
<b>Panel B) Count of investments by sector</b>							
Finance and Insurance	22	20	40	133	222	193	630
Collective Investment Vehicles	-	2	26	136	137	231	532
Oil, Gas and Mining	2	6	28	40	44	43	163
Industrial and Consumer Products	8	7	32	31	15	16	109
Chemicals	8	8	24	30	23	15	108
Food and Beverages	4	4	22	37	14	17	98
Electric Power	1	-	-	26	11	58	96
Nonmetallic Mineral Product Manufacturing	8	18	14	28	12	8	88

# Appendix: 影響力投資者平均願意犧牲預期超額IRR 2.5~3.7%來換取正面影響力

**Table A3. Distribution of IRR and VM for VC Funds, 2000 to 2012**

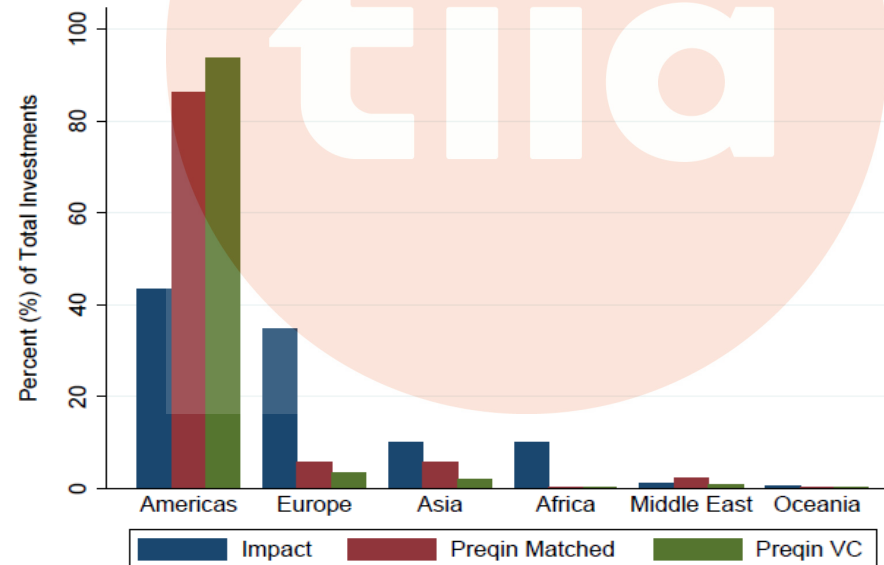
The table reports the distribution of funds' final (or last reported) internal rate of return (IRR) or value multiple (VM). Excess IRR (or VM) is the fund's IRR less the median IRR (or VM) for cohort funds. Cohorts are defined by vintage year and geography. Panel A presents percentiles of the distribution. Panel B translates percentile rank spreads centered on the median performance measure to a performance spread for each of the performance variable.

Percentile	IRR	Excess IRR	VM	Excess VM	Percentile Rank	IRR	Excess IRR	VM	Excess VM
<i>Panel A: Percentiles of Performance Measures</i>					<i>Panel B: Mapping of Percentile Rank Spread to Performance</i>				
5th	-14.1	-18.8	0.40	-0.81	1	0.3	0.0	0.02	0.00
10th	-7.9	-14.2	0.59	-0.60	2	0.4	0.0	0.03	0.00
15th	-4.9	-10.9	0.71	-0.49	3	0.6	0.2	0.05	0.02
20th	-2.7	-8.6	0.82	-0.40	4	0.8	0.4	0.06	0.02
25th	-0.5	-6.1	0.92	-0.30	5	1.0	0.4	0.07	0.03
30th	1.2	-4.8	1.00	-0.23	6	1.5	0.6	0.07	0.03
35th	3.0	-3.4	1.06	-0.15	7	1.7	0.9	0.09	0.04
40th	4.5	-1.9	1.12	-0.09	8	2.0	1.1	0.09	0.05
45th	5.9	-0.7	1.18	-0.04	9	2.2	1.1	0.11	0.05
50th	7.2	0.0	1.24	0.00	10	2.5	1.3	0.12	0.07
55th	8.4	0.6	1.30	0.03	11	2.6	1.6	0.13	0.07
60th	9.5	1.7	1.38	0.09	12	2.9	1.8	0.14	0.09
65th	10.8	3.1	1.45	0.15	13	3.2	2.0	0.15	0.09
70th	12.4	4.3	1.52	0.22	14	3.5	2.2	0.17	0.11
75th	14.4	6.0	1.61	0.32	15	3.7	2.6	0.18	0.12
80th	16.8	8.0	1.73	0.42	16	3.9	2.8	0.19	0.14
85th	19.9	11.1	1.87	0.56	17	4.2	3.0	0.21	0.14
90th	24.7	15.1	2.10	0.80	18	4.5	3.3	0.22	0.17
95th	35.0	24.0	2.50	1.25	19	4.8	3.5	0.24	0.18
Interquartile	14.9	12.1	0.69	0.62	20	5.0	3.6	0.26	0.18
N	1,036	1,036	1,177	1,176	21	5.4	3.9	0.26	0.20
					22	5.7	4.1	0.28	0.21

# Appendix: Impact and Benchmark Fund Geographic Focus

Figure 1: Impact and Benchmark Fund Geographic Focus

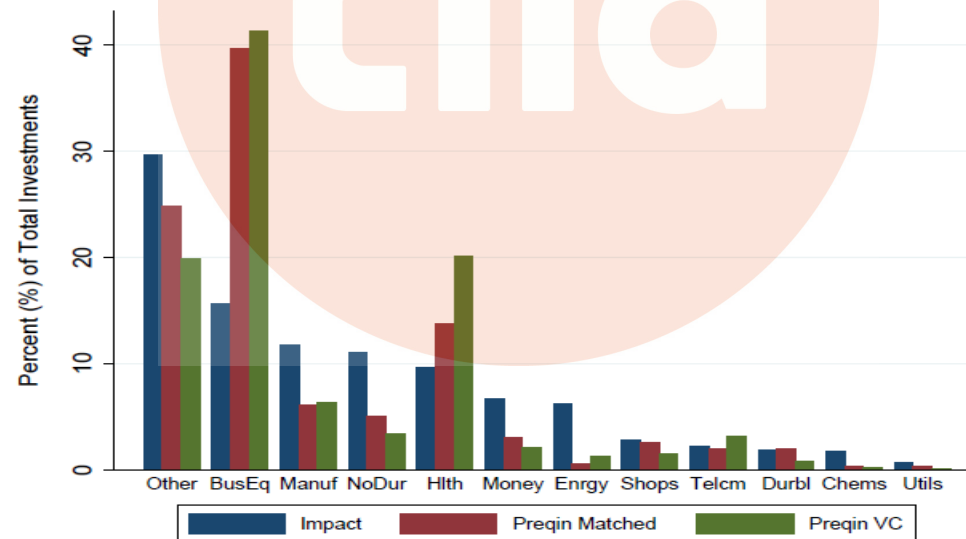
We plot the share of investments by company headquarter region for impact, matched, and VC funds. This figure plots the count of investments per region as a share of total number of investments in a particular fund type aggregated portfolio. Data is pulled from Pitchbook.



# Appendix: Impact and Benchmark Fund Industry Focus

Figure 2: Impact and Benchmark Fund Industries

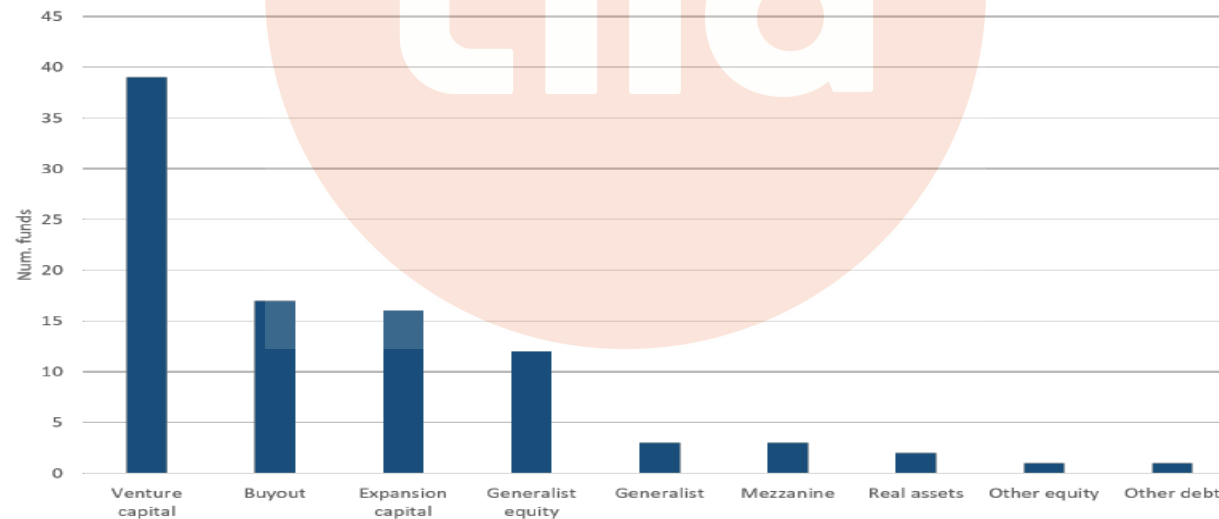
We plot the share of investments by industry for impact, matched, and VC funds. This figure is created by counting the number of times one of the Fama-French 12 industries appears in a particular fund type aggregated portfolio, divided by the total number of portfolio companies for each fund type. All fund-investment level data is from Pitchbook.



# Appendix: Impact Fund by Asset Class

Figure 3: Impact Funds by Asset Class

We plot the number of impact funds in our sample by asset class. VC funds are equity funds that invest with an early stage focus. Other equity funds include late stage and more generalist funds. Buyout funds are equity funds with a buyout focus that use leverage. Debt funds are private funds that originate loans to portfolio companies. Real asset funds invest in physical assets. The remainder of impact funds are generalist, that invest with a variety of styles in companies at various stages.



# Appendix: Mission Focus for Sample Impact Funds

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Panel A: Mission category	
	Num. funds
Environmental	18
Social	48
Social and environmental	28
Total	94

Panel B: Primary mission focus	
	Num. funds
Clean technology and energy	14
Diversity, equity and inclusion	4
Economic development	31
Financial inclusion and microfinance	9
Food and agriculture	2
Other environment	5
Social services	9
Sustainable practices	20
Total	94

Source: The Risk and Return of Impact Investing Funds, 2023

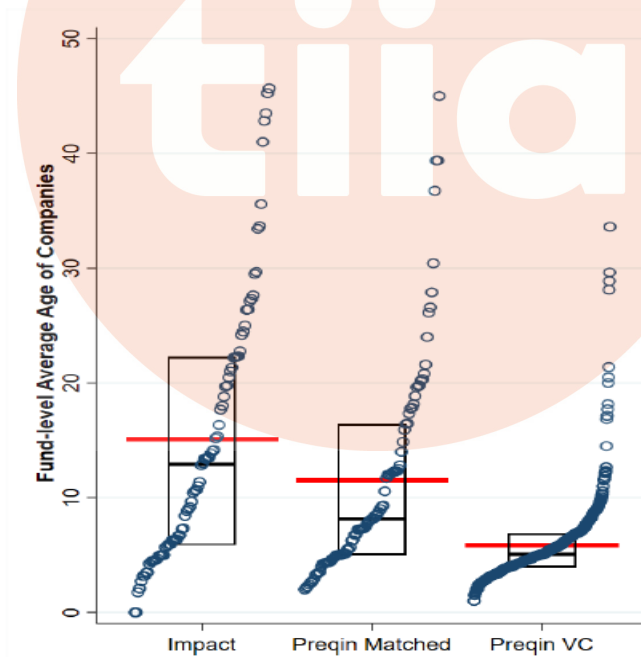
# Appendix: Summary Statistics

	Impact			Matched			VC		
	N	Mean	Median	N	Mean	Median	N	Mean	Median
Vintage	94	2009.1	2010	94	2009.1	2010	484	2006.1	2006
Fund Size (Mill\$)	94	428.9	143.2	94	422.3	161	484	372.7	280
KS PME	94	0.744	0.724	94	0.996	0.925	484	0.914	0.823
Multiple	94	1.154	1.073	94	1.532	1.361	484	1.568	1.327
IRR (%)	94	-0.325	3.021	94	10.028	9.037	480	5.374	5.185
Effective Years	94	9.1	8.8	94	8.4	7.9	484	14.3	15
# Cash Flows per Fund	94	25.6	25.5	94	29.2	27	484	33.8	32
# Contributions	94	17.3	17	94	17.9	17	484	20.0	19
# Distributions	94	8.3	6	94	11.3	10	484	13.8	12

# Appendix: Age of investees

Figure I.B.6: Average Age of Investments at Deal Date

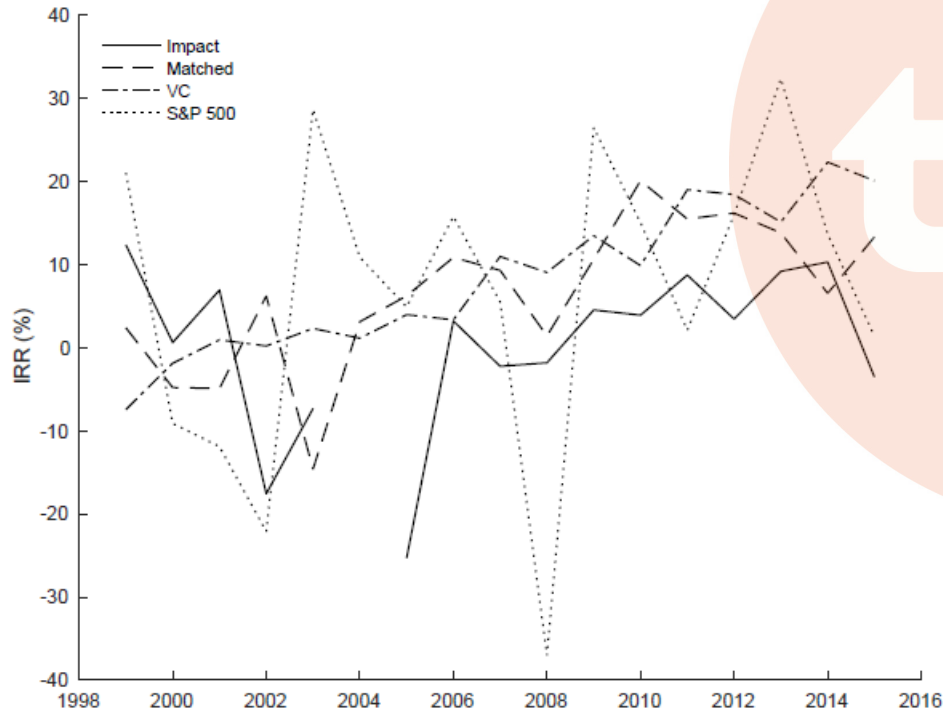
We provide the boxplot and cumulative distribution of the average age of companies within fund portfolios, broken out by the sample group. Each dot represents one fund. The average within each sample is denoted by the red line. Age is calculated by subtracting the year of the company's founding from the deal year.





# Appendix: Unadj. performance

(a) IRR (%) by Vintage



(b) TVPI by Vintage



# Appendix:

4. Based on your practical experience, what are the main obstacles in delivering IMPACT ALPHA?	
<b>Allianz</b>	1) Some of the most innovative impact solutions are still new, at a smaller scale, and inevitably there will be technology or other risks associated with these emerging solutions.
	2) Alignment around impact definitions and measurement is important for scaling impact investing.
<b>Lok Capital</b>	1) Measuring and Reporting Impact
	2) Lack of Clear Definitions and Standards
	3) Exit Strategies and Liquidity Concerns
	4) Risk Perception
	5) Short-Termism
	6) Resistance from Traditional Investors
	7) Capacity and Expertise Gap
<b>Big Society Capital</b>	Funding and regulatory environments that favour extractive business models
<b>Sarona</b>	Perception risk of doing impact investing. In reality, that depends on what kinds of impact you're looking for. If you wanna do investments only in EM, that's more risky. If it's financial inclusion and healthcare, that's really profitable.
<b>Leapfrog</b>	Comparable impact measurement and management practices across asset managers is a hurdle to some investors recognizing the impact alpha of an investment.

# Appendix:

4. Based on your practical experience, what are the main obstacles in delivering IMPACT ALPHA?	
<b>Blue Orchard</b>	<ul style="list-style-type: none"> <li>1) Regulatory challenges</li> <li>2) Limited investment opportunities</li> <li>3) Difficulty in measuring impact</li> <li>4) Lack of standardized metrics</li> </ul>
<b>ResponsAbility</b>	The private market impact universe has expanded, but it's complex. Measuring social and environmental impact needs non-financial data, which can be challenging to obtain as counterparties may not provide it. Additionally, subjectivity is a significant factor in assessing social impact.
<b>TPG Rise</b>	<ul style="list-style-type: none"> <li>1) portfolio companies don't have the right people</li> <li>2) Macro issue: regulation, war in the Africa</li> <li>3) Need to education portfolio companies, sometimes the mgmt team doesn't fully understand some impact metrics we use</li> <li>4) companies underperform financially</li> </ul>
<b>Triodos</b>	In many cases the market has already figured out which companies can deliver impact alpha. So, it's about finding new companies, but those tend to be smaller, could have more limited liquidity and could perhaps improve their communication with the market.
<b>WHEB</b>	<p>Generating alpha in stock markets is a challenge. In impact investing, it's even harder, as it requires finding genuine, quantifiable impact stories not widely known. Investing early in impactful companies is key for alpha.</p> <p>Long-term opportunities exist too. Impactful companies addressing sustainability challenges tend to outperform the economy. Investing in them at the right valuations can yield impact alpha.</p>