

‘Impact’ in Private Equity: What Is Best Practice?

March 2023



bfinance is an award-winning specialist consultant that provides investment implementation advice to pension funds and other institutional investors around the globe. Founded in 1999, the London-headquartered firm has conducted engagements for more than 450 clients in 43 countries and has 10 offices globally. Services include manager search and selection, fee analysis, performance monitoring, risk analytics and other portfolio solutions. With customised processes tailored to each individual client, the firm seeks to empower investors with the resources and information to take key decisions. The team is drawn from portfolio management, research, consultancy and academia, combining deep sector-specific expertise with global perspective.

This commentary is for institutional investors classified as Professional Clients as per FCA handbook rules COBS 3.5R. It does not constitute investment research, a financial promotion or a recommendation of any instrument, strategy or provider.

Contact details

Anna Morrison, Senior Director Private Markets, amorrison@bfinance.com
Sarita Gosrani, Director of ESG & Responsible Investing, sgosrani@bfinance.com

Contents

04	Why read on?
05	The rise of ‘impact’ private equity funds
06	Strategies at a glance
08	Impact PE managers: best practices and pitfalls
09	...at firm level
10	...at fund level
11	...at deal (portfolio company) level
13	Considerations for fund of funds
14	Key takeaways

Why read on?

While the emergence, rapid growth and maturation of the ‘impact’ investment sector represents an extremely positive development for the investment industry, asset owners are now grappling with the challenging practical task of assessing and comparing these strategies.

Impact investment funds—seeking measurable positive environmental and social impact alongside a financial return—have proliferated across many asset classes including public equity, private equity, real estate, infrastructure, natural capital and more. There are numerous tailwinds, ranging from supportive ‘mega trends’ such as climate change and resource scarcity to inter-generational shifts in mindset. It has therefore become increasingly essential for investors to (at least) understand the sector and form a clear view.

Momentum has been particularly strong in **private equity**, due in part to the fundamental characteristics of the asset class. Private equity investment involves strong engagement with investee companies in which the GP will often have a majority stake, providing a good foundation for the investor to exert influence. Moreover, unlisted companies are more likely to have a narrow focus than their larger listed counterparts and may therefore be dedicated to a particular type of (impactful) product, technology or service. As such, the universe of private equity funds has expanded and become increasingly diverse, as shown on the following page.

It is far from straightforward to assess the credibility of these strategies. Amid concerns around ‘impact-washing’ and ‘SDG-washing’, it is crucial to set meaningful standards. Yet black-and-white requirements are problematic in an essentially immature asset class. Idealised impact investing ‘best practice’ does not yet translate into real life.

Actual track records are short; KPIs are problematic; managers are often unable to demonstrate *intentionality*, *additionality* or a clear *theory of change* to the extent that one may wish. The investor must find a way of navigating a highly imperfect world.

Names and labels are not particularly helpful in this task. Many impactful strategies are not labelled as impact funds. The Article 9 designation in the EU Sustainable Financial Disclosure Regulation is not indicative of an impact strategy. As SFDR evolves, a significant number of strategies across asset classes have been downgraded from Article 9 to Article 8 amid concerns about disclosure requirements.

In this *melée*, it is important to understand: **what is an appropriate standard to which investors should hold ‘impact’ private equity managers accountable?** What do the stronger and weaker approaches look like now? What should now reasonably be viewed as good practice today, and what should we now view as ‘laggard’ behaviour? How does this vary according to the stage of capital—buyout versus venture, for example—and fund type? This brief report presents a selection of useful indicators: **‘best practice signals’** and **‘potential red flags’** that we are currently seeing at firm level, fund level and deal level.

To some extent, the assessment of a private equity manager’s ‘impact’ remains a personal property. Investors bring their own distinctive priorities to bear. But beauty is not only in the eye of the beholder. We hope that this brief report will help investors to traverse this confusing terrain and select prospective partners with more confidence.

The rise of ‘impact’ private equity funds

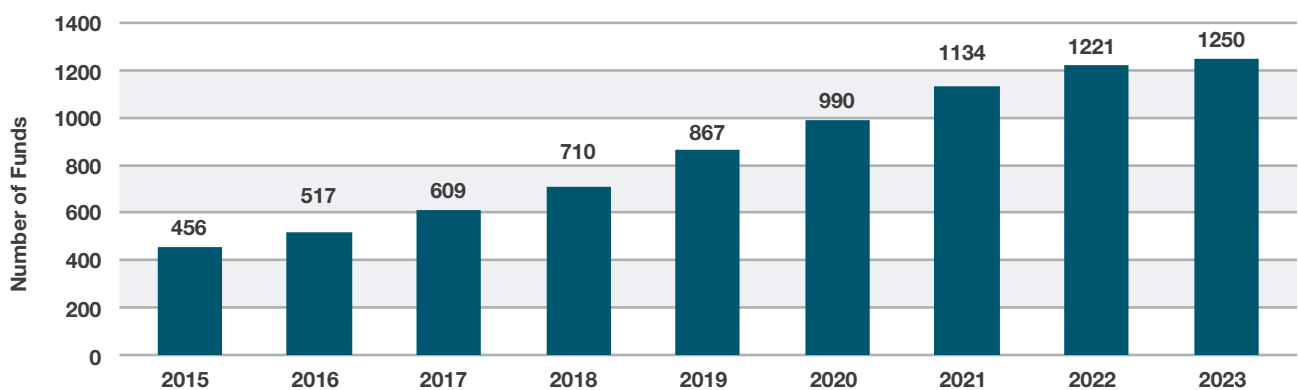
Private equity strategies with an explicit mission to deliver impact are a relatively new and rapidly evolving breed. They first appeared in the mid-2010s and new strategies (predominantly closed-ended) are now appearing on a weekly basis. Few of the players are impact-only specialists: many also run non-impact PE strategies.

While the initial launches were more likely to have a venture capital or growth focus, more recent vintages

have included a considerable and growing number of buyout funds—some of them over a billion US dollars in size. Dedicated fund-of-funds have also emerged. These are hallmarks of an increasingly mature sector.

Although this group is now deep and varied, as showcased on the following page with a selection of data snapshots, it is still relatively immature and fundraising still features a high proportion of ‘Fund I’ strategies.

FIGURE 1: NUMBER OF ‘IMPACT’ PRIVATE EQUITY FUNDS



Source: Phenix Capital

Jargon buster: impact investing

While there are various definitions of impact investing, those from the Impact Management Project (IMP) and the Global Impact Investing Network (GIIN) have now perhaps become the most widely accepted versions used by investment industry participants. The GIIN defines impact investing as: “Investments made with the **intention** to generate positive, **measurable** social and environmental impact alongside a financial return”. Moreover, it is now popularly agreed that impact

investments should satisfy five criteria: Intentionality, Additionality, Measurement, Theory of Change and Responsible Exit. These are discussed further in Figure 2.

From bfinance’s perspective, most of our clients go further and require that the ‘financial return’ be commensurate—at least—with what they would have obtained through conventional investment.

FIGURE 2: FIVE CRITERIA FOR AN IMPACT INVESTMENT

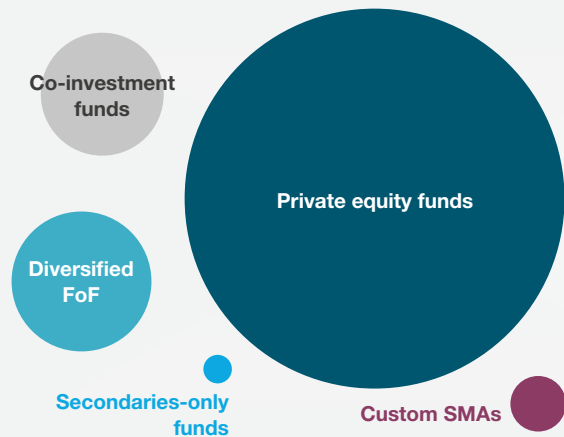
Intentionality	Additionality	Measurement	Theory of Change	Responsible Exit
Positive social or environmental impact that is defined as part of the investment strategy and assessed alongside financial return.	The positive impact that would not have occurred without the investment.	Measuring and managing the process of creating social and environmental impact in order to maximise and optimise it.	A methodology that impact investors use to define how to achieve their social and/or environmental goals.	Crucial to safeguard the continuity and sustainability of the intended positive impact.

Strategies at a glance

STRUCTURE

The manager universe is now of sufficient depth to catalyse a broader suite of dedicated impact PE strategies including fund of funds, secondaries and coinvestment funds. Interestingly, the impact FoFs created to date have a less traditional portfolio construction than their generalist PE counterparts, with larger components of co-investment and secondaries and more use of growth/venture investing. Beyond the universe of funds, investors can also access custom separately managed accounts (SMAs).

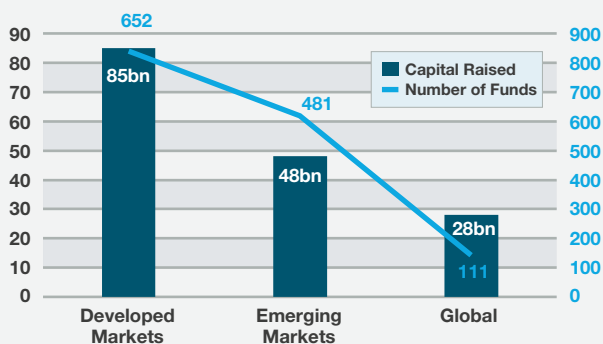
FIGURE 3: 'IMPACT' PE FUND TYPES



GEOGRAPHY

While developed market strategies are dominant, there is growing appetite for emerging markets (seen as having higher 'additionality'). EM strategies are typically 'growth'; Asia and Africa are the most popular destinations.

FIGURE 4: CAPITAL RAISED IN IMPACT PE FUNDS, BY REGIONAL FOCUS

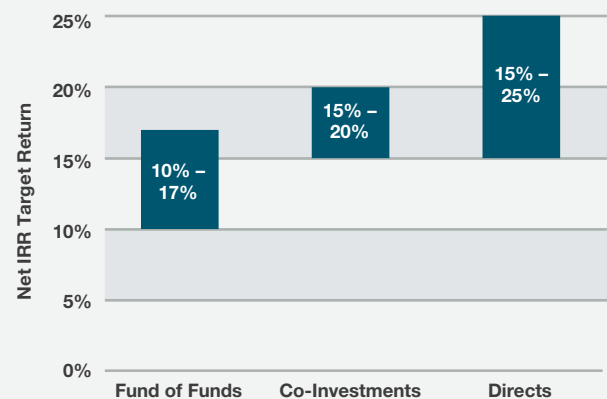


Source: Phenix Capital

TARGET IRR

Investors can access non-concessionary returns and also move up and down the risk return spectrum across a range of product and strategy types.

FIGURE 5: TARGET NET IRR, BY FUND TYPE

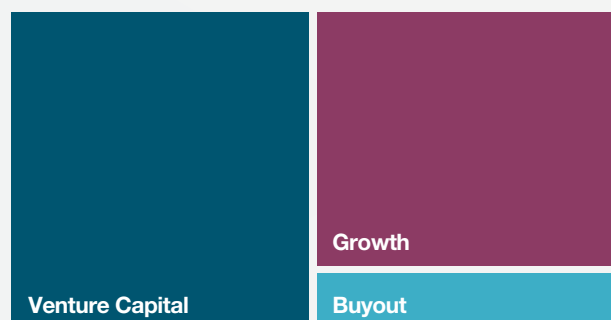


Source: bfinance manager research

STAGE FOCUS

Asset managers typically target companies at a specific stage in the lifecycle. Earlier-stage investing has historically made up the greatest number of funds by number, as shown here. Yet it also comes with more risk (products or services may be unsuccessful) and measurability/reporting is lower. Yet the ultimate impact rewards may be higher. We are seeing increasingly large fund sizes become available, particularly at the buyout end of the market, as the opportunity set increases.

FIGURE 6: SPLIT OF STRATEGIES BY STAGE FOCUS



Source: bfinance

IMPACT TYPE AND PHILOSOPHY

The majority of impact private equity funds target both environmental and social themes. That being said, a significant minority of strategies focus on either one area or the other; the sub-group of climate-focused funds is particularly notable here. Climate-focused funds have strong tailwinds from US and European government action. When considering impact objectives, many managers consider alignment with SDGs, but investors should be cognisant of ‘SDG-washing’ and treat headline targets with care: more granular alignment with the 169 underlying sub-targets can indicate a more considered approach.

FIGURE 7: ESTIMATED PROPORTION OF STRATEGIES FOCUSING ON IMPACT SUB-THEMES



Separately from the specific themes, asset managers may take different philosophies on impact, such as focusing on ‘transformational’ investing (a company moving from ‘brown’ to ‘green’) versus ‘solutions’ investing (the company’s product or service is inherently impact-generative). The private equity asset class naturally skews towards the ‘solutions’ mindset, given the types of companies that sit in portfolios.

FIGURE 8: IMPACT PHILOSOPHIES

“Low” impact	“Moderate” impact	“High” real world impact if transformation achieved	“High” real world impact
ESG Leaders	Sustainable/Thematic Investing	Transformational Impact	Solutions-focused Impact
e.g. exposure to companies demonstrating best-in-class ESG credentials	e.g. exposure to companies aligned to future sustainable themes such as the energy transition, ageing population, cyber security etc. however outcomes may not be quantified	e.g. exposure to companies that demonstrate a plan to transition from “Brown” to “Green”	e.g. exposure to companies that provide solutions to facilitate/enable transition to a more sustainable future and that demonstrate measurable outcomes

Investors can also debate the extent to which investing with impact is synonymous with having direct control over the underlying assets. A fund of fund or a co-investor will have less ability to influence companies directly than the classic private equity fund investor, even where they may hold board positions: the fund of funds manager is further removed from the asset; the co-investor uses minority stakes. This can theoretically lower the scope of the manager’s impact. However, investors may also consider the potential advantages of funds of fund strategies from an impact perspective. They can drive best practice among underlying GPs—particularly in the VC space—by helping the managers to formalise impact processes and mandate stronger reporting standards. Fund of fund investing is discussed further on page 13.

Impact PE managers: best practices and pitfalls

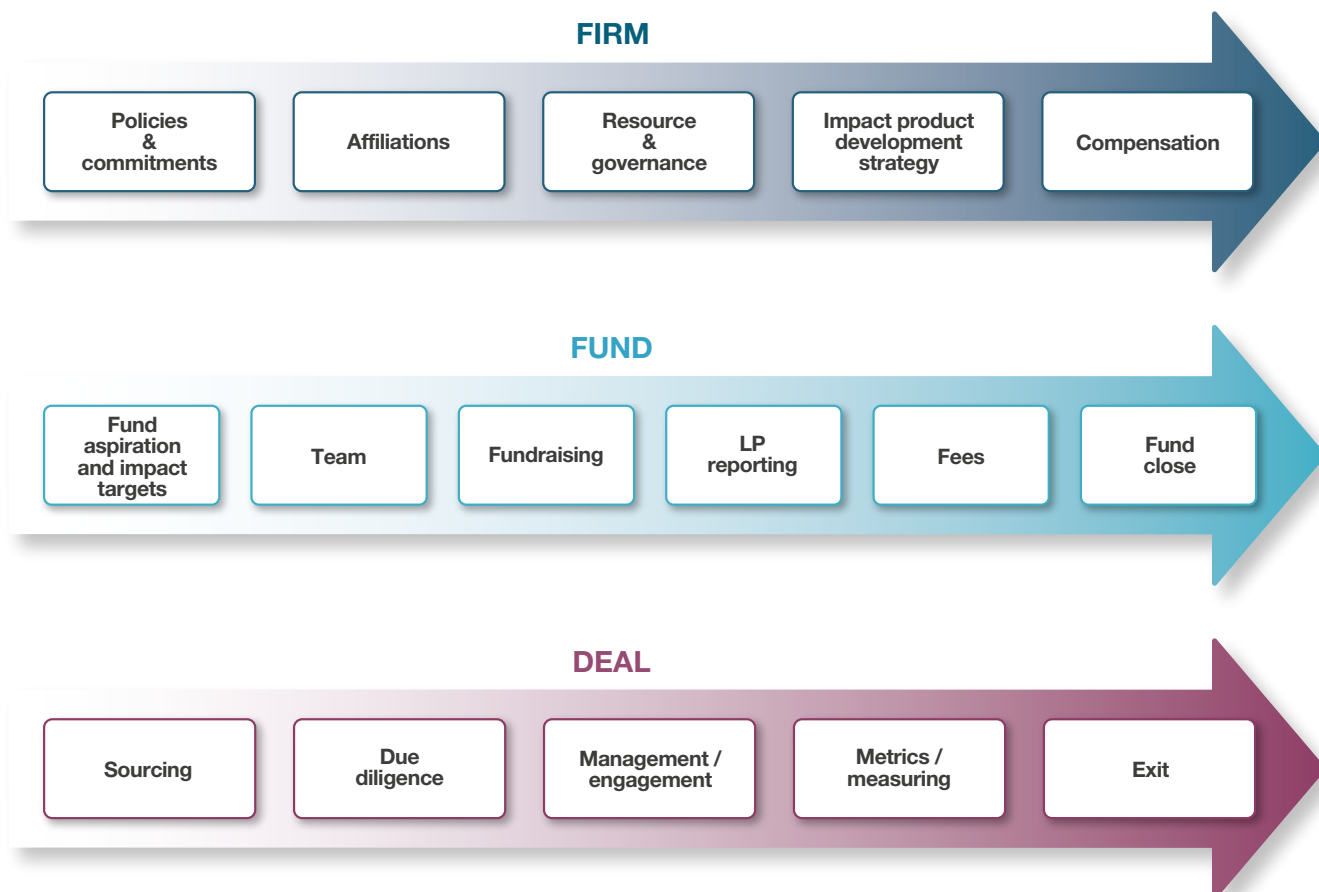
Notwithstanding the diversity of the sector and the complexity of the subject, there are some important attributes that investors can look out for when weighing up today's private equity fund offerings. The following pages showcase a number of these **'best practice signals'** and **'potential red flags'**: indicators that have tended to characterise stronger and weaker approaches during our recent fund research in this space. The purpose: to provide readers with pragmatic, market-based insight on what managers are actually doing now.

For clarity, these indicators are divided into three groups: those that relate to the **firm**, those that relate to the **fund** and those that relate to the underlying **deals** (see figure below). Indeed, one overall quality that investors can look for—beyond the specific elements listed—is the overall consistency within these layers and between these layers. For example, a GP may have a clearly defined process at deal level but lack complementary practices at fund and firm level.

These indicators should not be viewed as a checklist: managers can exhibit some of the positive signals while lacking a credible impact investing approach and the reverse is also true. Moreover, our interpretation should also be influenced by strategy type, stage focus, geography and the investor's preferences.

There are trade-offs to be considered. For example, investors that place strong emphasis on an existing measurement framework and impact methodology will find direct buyout funds that meet these needs but may struggle in venture capital, despite this sector's potential for long-term impact. Investors that have historically invested only in developed market private equity strategies, due to risk tolerance, may find themselves considering how they might address the large groups of under-served populations in (riskier) emerging markets.

FIGURE 9: IMPACT CAN BE DRIVEN (AND UNDERMINED) BY ACTIONS AT DEAL, FUND AND FIRM LEVEL



...at firm level

	Best practice signals May suggest a strong approach within current manager peer group. Not a comprehensive list.	Potential red flags May suggest a weaker approach within current manager peer group. Not a comprehensive list.
Policies & commitments	<ul style="list-style-type: none"> • Senior leadership is held accountable for driving sustainability and impact. • Firm-level commitment to climate change and decarbonisation of the real economy. 	<ul style="list-style-type: none"> • Vague/superficial policies lack practicality. • Annual sustainability reports lack transparency and/or tangible evidence of outcomes achieved by the firm to support commitments.
Affiliations	<ul style="list-style-type: none"> • Involvement in industry initiatives to push through barriers e.g. data standardisation. • Firm-level affiliations reflect specific types of impact targeted in strategies. • Earlier or stronger involvement with collaborative initiatives (e.g. steering committee vs. signatory). 	<ul style="list-style-type: none"> • Firm-level affiliations do not reflect specific types of impact targeted in strategies, e.g. a climate strategy but no firm-level involvement with climate or net zero initiatives. • Considerations may vary by region (US vs. Europe) due to lower pace of adoption.
Resource & governance	<ul style="list-style-type: none"> • Firm-level ESG/RI/Sustainable committees have clear oversight of firm and product-level practices and may even have an audit process in place. • ESG/impact specialists have senior/leading roles e.g. on the Investment Committee. • Non-ESG/impact individuals are equally invested in embedding impact into the investment processes. • Use of external consultants/expertise in complex/niche topics e.g. climate science. 	<ul style="list-style-type: none"> • Non-ESG/Impact investment team members unable to communicate on or lack conviction on ESG/impact matters. • Slow/limited development of ESG/impact resources; staff may be inexperienced (rapid move from analyst to director level due to high demand for talent). • ESG/impact individuals spread thinly across strategies/asset classes, with low time commitment to a specific strategy. • Lack of diversity at firm level and specifically in the investment teams.
Impact product development strategy	<ul style="list-style-type: none"> • Impact products reflect existing in-house investing strengths and expertise. • Strong ESG and active ownership across full product range, not just impact products. 	<ul style="list-style-type: none"> • Firms entering this sector with an 'asset aggregator' mindset; product development chiefly driven by financial considerations. • Misrepresentation of strategies using 'impact' product labels.
Compensation	<ul style="list-style-type: none"> • Strong alignment of overall firm, investment team and senior team with the generation of impact outcomes (KPIs, financial remuneration). • Some firms have implemented broader incentives for sourcing impact deals. 	<ul style="list-style-type: none"> • Lack of discussion or willingness to consider (over time) developing KPIs that are linked to impact particularly as impact outcomes are a measurable objective of the strategy.

The 'impact private equity' manager universe is bifurcated between dedicated impact firms and broader asset managers. During bfinance's recent manager searches in this sector for mid-to-large-sized institutional clients, nearly a third of the funds under active consideration have been run by firms where impact strategies constitute a majority of the firm's overall AuM.

A manager does not have to be an impact-only specialist to deliver a high quality impact investment strategy that will be able to count on the full ongoing support and resources of the firm. That being said, many firms do have an 'asset aggregator' mindset when launching impact strategies. We must look carefully at indicators of commitment and culture.

...at fund level

	Best practice signals	Potential red flags
Fund aspiration and impact targets	<ul style="list-style-type: none"> • Clarity on the specific outcomes and theory of change that the fund is seeking to achieve beyond SDG alignment. • Focus on investing in companies that have intentionality of impact at their core. 	<ul style="list-style-type: none"> • Broad/vague definition of impact or reliance purely on SDG alignment, which allows for non-impactful investments to end up in the fund.
Team	<ul style="list-style-type: none"> • Strong expertise in target sectors. • Strong integration between ESG/impact specialists and investment teams. • Use of external advisers and consultants shows further commitment. • Strong alignment demonstrated by a meaningful level of GP commitment (investing their own capital). 	<ul style="list-style-type: none"> • Targeting a wide range of SDGs but team lacks specific investment expertise in those areas (e.g. clean tech, sustainable agriculture). • Team may not be able to access firm-level impact resources when needed, or resources may be unsuitable (see page 9).
Fundraising/ track record	<ul style="list-style-type: none"> • Robust simulated impact track records (since managers cannot typically offer a long-term track record in this strategy) e.g. running all past deals through new selection framework. 	<ul style="list-style-type: none"> • Misrepresentation of impact track record e.g. backfilling without a strong screening process. • Over-reliance on product and regulatory labels. • Template impact reports not available for new strategies.
LP reporting	<ul style="list-style-type: none"> • High quality, transparent annual impact reports to LPs with impact outcomes vs. pre-set targets and YoY improvement. • Reporting not limited to outcomes; includes case studies of active ownership, carbon emissions, diversity etc. • Quarterly reporting where appropriate to communicate ESG incidents. • Leveraging IRIS+ and other industry frameworks. 	<ul style="list-style-type: none"> • High-level reporting focused predominantly on SDG alignment and/or ESG. • Using 'lack of data' as rationale for not providing clear reporting.
Fees	<ul style="list-style-type: none"> • Some managers offer reduction of carry where impact objectives are not delivered. • Proceeds from carry may be used to create impact elsewhere if KPIs are not met e.g. donation to an impact charity. 	<ul style="list-style-type: none"> • Where they exist, impact targets may be linked to carry but the target may be vague or not set at a meaningful level.

Private equity funds define their overall impact aspirations and philosophies in very different ways, ranging from broad to highly targeted. Interestingly, there are pitfalls at both ends of that spectrum. The manager that takes a very broad approach to impact, perhaps by ticking against a relatively long list of SDGs, may give the impression that virtually any deal can 'get in'. They may also lack the specific

sector expertise required to do well in the relevant niches—and that expertise is now critical amid strong competition for impactful assets (pricing is discussed on the following page). At the other end of the spectrum of specialisation, the manager that inhabits a very specific segment—such as healthcare—may have highly appropriate historic expertise but could well be focused on less impactful parts of that sector.

...at deal (portfolio company) level

	Best practice signals	Potential red flags
Sourcing	<ul style="list-style-type: none"> • Clear set of impact-related qualifying requirements for deal inclusion/exclusion. • Structured process that combines financial viability of impact outcomes and returns. • Approach tailored to the investment type, stage of capital and investment style i.e. fund of funds, co-investments etc. • Collaboration between ESG/impact specialists and the deal teams when sourcing. 	<ul style="list-style-type: none"> • No clear process/qualifying requirements. • High reliance on SDG alignment or qualitative screens. • Competing on deals; lack of pricing discipline against the backdrop of high demand for impact assets.
Due diligence	<ul style="list-style-type: none"> • Clear dual underwriting (financial and impact) • Focus on quantifying target impact outcomes (pre-investment) that can be achieved over the holding period and reflecting them within the financial valuation. • Consideration for negative outcomes (net positive impact). • Proprietary methodologies leverage industry initiatives with independent verification. • Data disclosures gained through contractual negotiations on target KPIs, which might even feature exit clauses. Use of IRIS+ and other industry initiatives. • Genuine consideration for additionality and beneficiaries of impact. 	<ul style="list-style-type: none"> • Lack of well-defined impact underwriting framework; no separation of impact and financial returns. • Forecasting impact outcomes is a secondary consideration. • Minority investment positions with hands-off approach may be problematic (e.g. a co-investor relies on lead investor to drive KPIs and reporting).
Management / engagement	<ul style="list-style-type: none"> • Driving scale of impact and value creation. • 100-day transition plan includes clear impact and ESG targets. • Commitment to decarbonisation of underlying assets as well as ESG and carbon disclosures. • Manager is able to set and link impact KPI targets to remuneration for portfolio company's management team. • Tangible evidence of ongoing engagement with portfolio companies through case studies and annual reporting. 	<ul style="list-style-type: none"> • No focus on driving the scale of impact post-investment. • Lack of ability to influence management company to accept KPI targets. • GP has set KPIs for the portfolio company's management team but has not applied these to their own performance incentives.
Exit	<ul style="list-style-type: none"> • Considering exit throughout the life of investment. • Company positioned to provide continuity of impact post-sale. • Consideration of type of buyer and their intentions for the company/their ability to create positive impact. 	<ul style="list-style-type: none"> • Exit considerations are largely financial, limited focus on continuity of impact. • Co-investors (minority status) may have little influence here.

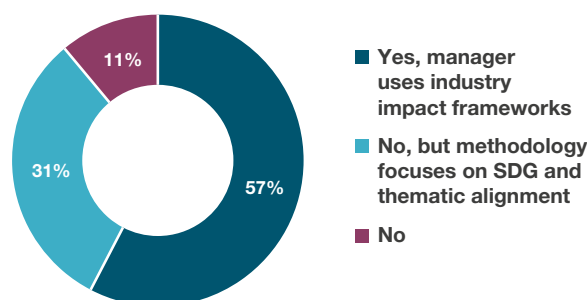
...at deal (portfolio company) level continued

When sourcing direct stakes in portfolio companies, private equity managers are increasingly using a clear set of qualifying factors: attributes that a company must possess. These may include a certain percentage of revenue alignment to SDGs (over 90%, for instance), appropriate measurable KPIs and assessment of the scale and depth of impact. External industry frameworks can prove helpful in shaping these approaches. Conversely, we note some less credible ‘impact’ strategies that lack clear selection requirements. Some of these are seen to engage in ‘SDG-washing’ (aligning companies with SDGs despite a lack of sufficient intentionality). For example, to use one anonymised case, a chocolate manufacturer should not be mapped to the ‘Zero Hunger’ goal!

More than half of the managers claim that they explicitly consider ‘under-served populations’ within their frameworks (see Figure 11). Yet closer examination of the manager’s philosophy and methodology does not always support these assertions. It is important to consider the beneficiaries of impact, and under-served populations in particular, with care. At strategy level this can also be related by geographical exposures, such as global versus developed markets.

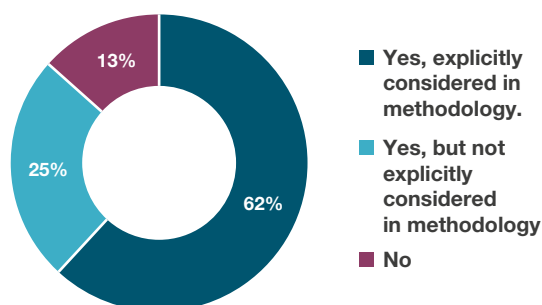
The picture is rather different for fund-of-funds, of course, since their ‘selection’ and ‘engagement’ activities revolve around fund positions rather than company stakes. Fund of funds are discussed in more detail in the following section.

FIGURE 10: DO IMPACT PRIVATE EQUITY STRATEGIES USE INDUSTRY IMPACT FRAMEWORKS?



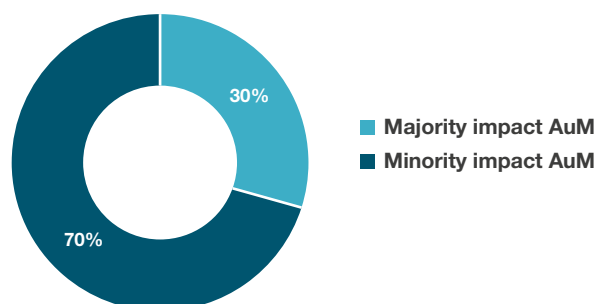
Source: bfinance manager research

FIGURE 11: DO IMPACT PRIVATE EQUITY STRATEGIES EXPLICITLY CONSIDER UNDER-SERVED POPULATIONS?



Source: bfinance manager research

FIGURE 12: MANAGER'S IMPACT AuM



Source: bfinance manager research

Considerations for fund of funds


While the ‘best practice indicators’ and ‘potential red flags’ highlighted above are chiefly written with direct (primary) funds in mind, many of them do apply—to some degree, at least—to the growing roster of fund of funds in this sector.

Impact assessment for fund investing tends to be significantly less well formed and transparent than impact assessment for direct (company) investing: there can be too much reliance on labels. There also tends to be less clarity on the fund’s overall impact aspirations and targets. It is important that an ‘impact’ fund of funds manager can provide clear criteria for sourcing, such as a solid definition of an impact fund that goes beyond themes. A healthcare-focused fund, for example, is not necessarily impactful if chiefly relates to discretionary healthcare spending for a wealthy demographic.

Fund of funds do not have direct control over underlying assets, and so their own definition and due diligence of impact funds needs to be airtight if they are to meet investor expectations. We should not underestimate their potential effectiveness, even though they are further removed from the assets: fund of funds can engage strongly with underlying GPs on processes, impact frameworks and reporting.

The emergence of this group of managers represents an extremely positive step for impact private equity as a whole, reflecting confidence in the strength and endurance of the sector and providing a clear message—as well as proactive support—to GPs that may be at an earlier stage of their journey. From an investor’s perspective, the emergence of these vehicles also provides an opportunity to gain exposure in a more diversified manner. This diversification, which reduces manager-specific risk, may be particularly beneficial in a newer asset class.

FIGURE 13: ‘IMPACT’ IN FUND OF FUNDS, CO-INVESTMENTS AND DIRECT FUNDS



FUND OF FUNDS	CO-INVESTMENT	DIRECT FUND
Blind pool risk (lack of ability to control investments)	Minority status (limited control over investments)	Full control over investments
Reliance on GPs to influence outcomes (relationships are important to drive change)	Collaboration with lead sponsor/ co-investors to drive outcomes	High additionality through direct value creation to increase scale of impact
Varying measurability of impact outcomes	Impact KPIs a strong focus of contractual agreements with sponsor	Able to set and measure informed target outcomes with companies
Diversification of impact through wide range of exposures	Diversification of impact depends on fund’s aspirations (tends to be wide)	Diversification of impact depends on fund’s aspirations

Key takeaways

New impact private equity funds are now appearing on a weekly basis. Investors can find substantial groups of strategies targeting different capital stages (venture, growth, buyout) and geographies. Most seek to deliver a diverse range of impact objectives but many are concentrating on a specific theme, such as climate. A wide variety of fund types are now available, including impact-focused fund of funds.

Manager due diligence is challenging. Investors must essentially perform a separate additional layer of analysis and the immaturity of the sector, combined with widespread ‘impact washing’, can make it difficult to determine desirable standards. It is important to look beyond checklists and consider whether managers’ approaches to impact are consistent and coherent overall. Impact can be driven (and undermined!) by managers’ actions at deal level, fund level and firm level.

In determining what constitutes a suitably credible impact strategy in this asset class, it is helpful to have a very strong awareness of asset managers’ current practices. This paper presented a selection of ‘best practice signals’ and ‘potential red flags’ that represent the behaviour of leaders and laggards during recent manager research. None of these indicators represents a silver bullet but, together, they can help investors to form strong-yet-pragmatic expectations.

Recent publications available at www.bfinance.com



**DNA of a Manager Search:
Impact Real Estate**
(September 2022)



**ESG Asset Owner Survey:
How Are Investors Changing?**
(February 2021)



**Impact in Private Equity:
Sector in Brief**
(October 2021)

IMPORTANT NOTICES

DISCLAIMER

No representations, express or implied, are made as to the accuracy or completeness of such statements, estimates or projections or with respect to any other materials herein and bfinance disclaims any liability with respect thereto.

PROPRIETARY AND CONFIDENTIAL

This document contains confidential and proprietary information of bfinance and is intended for the exclusive use of the parties to whom it was provided by bfinance. Its content may not be modified, sold, or otherwise provided, in whole or in part, to any other person or entity without bfinance's prior written permission.

OPINIONS NOT GUARANTEES

Findings, scores/ratings, and/or opinions expressed herein are the intellectual property of bfinance and are subject to change without notice. They are not intended to convey any guarantees as to the future performance of the investment products, asset classes, or capital markets discussed. Past performance does not guarantee future results. The value of investments can go down as well as up.

NOT INVESTMENT ADVICE OR RECOMMENDATIONS

This report does not contain investment advice or recommendations relating to any client's particular circumstances. No investment decision should be made based on the information contained herein without also considering the appropriateness of the investment for your own circumstances, existing portfolio construction and risk appetite.

INFORMATION OBTAINED FROM THIRD PARTIES

Information contained herein may include material obtained from a range of third-party sources. While the information is believed to be reliable, bfinance has not sought to verify it independently. As such, bfinance makes no representations or warranties as

to the accuracy of the information presented and takes no responsibility or liability (including for indirect, consequential, or incidental damages) for any error, omission, or inaccuracy in the data supplied by any third party. This information is obtained from sources that bfinance considers to be reliable; however, no representation is made as to, and no responsibility or liability is accepted for, the accuracy or completeness of the information. Information contained herein is subject to change at any time without notice. It is not possible to invest directly in a financial index. bfinance does not sponsor, endorse, sell, promote or manage any investment products.

THE FOLLOWING IS RELEVANT TO UK INVESTORS

bfinance Ltd is authorised and regulated by the Financial Conduct Authority. This document is purely for information purposes and does not constitute investment advice or a recommendation of any instrument, strategy or provider. It is intended for professional clients in approved jurisdictions only. All commentary is intended for institutional investors classified as Professional Clients as per FCA handbook rules COBS 3.5.1R and Per Se Professional clients COBS 3.5.2R.

GENERAL DISCLOSURE FOR US INVESTORS

Additional information, including management fees and expenses, is provided on our Form ADV Part 2, available upon request or at the SEC's Investment Advisor Public Disclosure site, here: <https://adviserinfo.sec.gov/firm/summary/159903>. As with any investment strategy, or any investment manager, there is potential for profit as well as the possibility of loss. We do not guarantee any minimum level of investment performance or the success of any portfolio or investment strategy. All investments involve risk (the amount of which may vary significantly) and investment recommendations will not always be profitable. Past performance is not a guarantee of future results.

Office locations

Amsterdam

Symphony building-26th Floor
Gustav Mahlerplein 109-115
1082 MS Amsterdam
The Netherlands

T +31(0)20 794 61 00
www.bfinance.com

Chicago

220 N. Green Street
Chicago IL 60607
USA

T +1 (312) 829-4353
www.bfinance.com

Hong Kong

Level 20, Infinitus Plaza, 199
Des Voeux Road Central,
Sheung Wan. Hong Kong

T +852 3953 7874
www.bfinance.com

London

36 Queen Street
London
EC4R 1BN
England

T +44 20 7747 8600
www.bfinance.co.uk

Montréal

1250 René Lévesque Blvd. W
Suite 2200, Montréal QC
Canada H3B 4W8

T +1 514 393 4899
www.bfinance.ca

Munich

Theresienstraße 1
D-80333 München
Deutschland

T +49 89 55 29 59 00
www.bfinance.de

Paris

49, avenue d'Iéna
75116 Paris
France

T +33 1 45 02 64 00
www.bfinance.fr

Rome

Piazzale delle Belle Arti 2
00196 Roma
Italy

T +39 06 6940 2500
www.bfinance.com

Sydney

Level 8, 99 Elizabeth Street
Sydney, NSW 2000
Australia

T +61 (0)2 8052 3930
www.bfinance.com

Toronto

88 Queens Quay West
Suite 2500, Toronto
Ontario M5J 0B8 Canada

T +1 (416) 560-7275
www.bfinance.ca

This document is purely for information purposes and does not constitute investment advice.
It is intended for professional clients in approved jurisdictions only. Information has been obtained
from sources believed to be reliable, however we do not guarantee accuracy.

bfinance UK Limited is authorised and regulated by the Financial Conduct Authority.

bfinance.com