



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

PRIVATE EQUITY SECTOR SCIENCE-BASED TARGET GUIDANCE

VERSION 1.0

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Private Equity Sector Science Based Target Setting Guidance

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Table of Contents

Acknowledgements.....	3
1. Executive summary.....	6
1.1 Highlights.....	6
1.2 Context.....	6
1.3 Call to Action and Collaboration.....	7
1.4 Guidance Audience and Objectives.....	8
1.5 Summary Target Setting Requirements.....	8
2. About This Guidance.....	12
2.1 Purpose of this Guidance.....	12
2.2 Guidance Development Process.....	12
2.3 Guidance audience.....	13
2.4 Project/Sector Context.....	14
2.5 What are Science-Based Targets?.....	17
3. Business Case for the Private Equity Sector to set SBTs.....	19
4. SBTi Target Validation Criteria and Recommendations for PE Firms.....	22
4.1 GHG Emissions Inventory and Target Boundary.....	22
4.2 Method Validity.....	24
4.3 Emissions Accounting Requirements.....	24
4.4 Target Formulation.....	25
4.5 Target Ambition.....	26
4.6 Scope 3 – Portfolio Targets.....	27
4.7 Annual Disclosure and Implementation Reporting.....	30
4.8 Recalculation and Target Validity.....	31
5. How to set SBTs for PE firms.....	33
5.1 Overview of scope 1,2 and 3 target setting requirements.....	33
5.2 Compile a GHG inventory.....	33

5.3	How to set an SBT for scope 1 and 2 emissions.....	34
5.4	How to set an SBT for scope 3, categories 1 to 14.....	35
6.	How to Set SBTs for Scope 3, Category 15	36
6.1	Overview of Asset Class Categorization and Target Setting Requirements.....	36
6.2	Real Estate and Electricity Generation Private Equity Investments.....	40
6.3	Private Equity Direct Investments, Including Buyout, Growth Capital and Venture Capital.....	43
6.4	Credit/private Debt	52
6.5	Secondaries and Funds of Funds	55
7.	How to Communicate SBTs	58
7.1	Example: Formulating a Multi-Strategy Firm's Target Language.....	59
8.	How to Track Targets and Disclose Progress.....	61
8.1	Target Tracking and Disclosure for Required Asset Class	61
8.2	General Disclosure Recommendations.....	63
8.3	Integrated reporting.....	64
9.	How to Achieve Targets	65
9.1	Integration of Climate Change in Governance	65
9.2	Engagement.....	66
10.	Discussion and Areas of Future Work.....	68
11.	Glossary.....	70
12.	References	78

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About the Initiative Climat International (iCI)

iCI was the first international initiative for private equity firms aiming to address climate change. It was originally launched as the iC20 (Initiative Climat 2020) in 2015 by a group of French private equity firms to help achieve the Paris Agreement's objectives – limit global warming to well below 2 degrees Celsius and pursuing efforts to limit warming to 1.5 degrees Celsius.

iCI is a global community of investors seeking to understand better and manage the risks associated with climate change. Members commit to sharing knowledge, tools, experience and best practice among peers to help build and manage both climate-aligned and climate-resilient portfolios.

iCI is supported by the Principles for Responsible Investment (PRI), and is a Supporting Partner of [The Investor Agenda](#). iCI is open to all private equity firms and investors to join. For further information, please visit [PRI's website to find out more](#).

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¹ The GP ESG Working Group is a voluntary grouping of ESG practitioners in the US who come together to share best practices, challenges following the Chatham House Rule.

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1. Executive summary

1.1 Highlights

- The latest Intergovernmental Panel on Climate Change (IPCC) Assessment Report 6 (IPCC 2021) sends a clear warning that the world is on track to reach 1.5 degrees Celsius of warming within the next two decades. Rapid, transformational change is required to limit warming to 1.5 degrees Celsius by the end of the century.
- The private market reached its all-time high last year, with US\$7.3 trillion close ended assets under management (AUM) in 2020 (McKinsey & Company 2021), and is expected to continue to grow rapidly. The private equity (PE) sector has a significant collective economic and climate impact – it is key for the sector to take immediate actions to facilitate the transition to a net-zero economy by 2050.
- Through their long-term investment strategies and considerable influence over their portfolio companies (PCs), PE firms or General Partners (GPs) are well positioned to support PCs for a low-carbon transition, by setting mid- and long-term firm-level science-based targets (SBTs). Limited Partners (LPs), as investors funds managed by GPs, should also leverage their influence, pushing GPs to align their investment strategies with the Paris Agreement's ambition.
- This Guidance supports PE firms' GPs to set ambitious greenhouse gas (GHG) emissions reduction targets (SBTs) for their operations (scope 1 and 2 emissions) and firm-level portfolio SBTs for their investment and lending activities (scope 3, category 15). The Guidance refines existing Financial Sector SBT Guidance ([FI Guidance](#)) by mapping currently available portfolio target setting methods and criteria to the most relevant asset classes for the PE sector. The Guidance also provides practical recommendations for method application which considers the unique attributes of private equity including the nature of the PE investment cycle, the type of investment, level of ownership, influence, transformation, etc.
- This Guidance currently focuses on providing clear target setting requirements on PE direct investments in buyout, growth and venture capital strategies, to ensure PE firms collectively address this most material asset class and accelerate GHG emissions calculation and target setting practices of private companies – which will have a positive impact on the sustainability integration of other private market strategies as a whole.
- To ensure relevance and credibility, this Guidance was developed in close consultation with leading sector experts from PE firms, consultancies, and nongovernmental organizations (NGOs) with PE sector expertise. A previous version was also piloted by nine PE firms and revised for improved practicality and user-friendliness.

1.2 Context

The extreme effects of climate change are no longer abstract or distant concepts. Recent deadly floods in China and Europe, extreme heat in Canada, Finland and Ireland, and massive

wildfires in the western United States are striking warnings that the world may be accelerating towards an irreversible planetary tipping point. The IPCC Assessment Report 6 (IPCC 2021) is a landmark study delivering an unequivocal body of evidence and the starkest warning to date of risks from anthropogenic climate change to humanity.

To decarbonize the global economy, all actors in the real economy need to reduce their GHG emissions at a sufficient rate to remain aligned with the emissions pathways established by climate science and inline with the Paris Agreement's goals. Having long focused on risks climate change poses to the profitability and longevity of financial activities, it is crucial for financial institutions (FIs) to shift focus on their climate impact through their investment and lending activities, while leveraging their influence in the economy to facilitate the transition to a net-zero economy. PE firms, through their long-term investment strategies and considerable influence over their PCs, are particularly well-positioned to support PCs for a low-carbon transition by setting SBTs.

Given the rising influence of the private market, it is critically important for the PE sector to take immediate action to facilitate the transition to a net-zero economy by 2050. This need is heightened by PE firms' unique position to help transform private companies with low carbon maturity. Of 17 million total private investable companies (S&P Global 2021), an estimated 0.03% of them report to CDP. The public investable market has a relatively higher carbon maturity, where 10.2% of 41,000 public investable companies report to CDP (OECD 2019).²

Given this clear opportunity to ramp up climate action, this Guidance provides criteria and recommendations for PE firms to set ambitious SBTs for their operations and investment portfolios, consistent with the reductions needed to stay in line with the well-below 2 degrees Celsius and 1.5 degrees Celsius climate scenarios.

1.3 Call to Action and Collaboration

Climate change poses a significant, real threat to the global economy, society and ecosystems. Private equity is an integral cog in the global economic engine, facilitating sustained growth across industries and market sectors. In light of this, the call is clear: the global private equity industry must do its part by leveraging tried-and-tested methodologies to mitigate carbon emissions and analyze portfolio exposure to climate-related financial risks.

The UN Principles of Responsible Investment (UN PRI), the iCI and the SBTi believe that the effects of climate change will generate both risks and opportunities for the companies in which private equity invest in, and recognize that private equity – with its levers for transformation and growth – has a vital and unique role to play in driving the transition to a zero carbon, climate resilient global economy, ultimately achieving the Paris Agreement's objective of limiting global warming to well-below two degrees Celsius.

² It should be stressed that the investible private market for private equity is likely much lower and thus the 0.03% figure shall be seen as a crude estimate, as each PE firm will focus on a carved-out area of the investable private market, thus the proportion reporting to CDP will likely be at least an order of magnitude greater than 0.03%.

The UN PRI, iCI, and the SBTi call upon the global private equity community to integrate this Guidance into its plans to decarbonize the real economy – and as the basis for a net zero future.

1.4 Guidance Audience and Objectives

To enable wide adoption of SBTs by PE investors, the Science Based Targets initiative (SBTi) developed this Guidance for PE firms to set targets for their operations and investment portfolios aligned with the reductions needed to stay in line with well-below 2 degrees Celsius and 1.5 degrees Celsius climate scenarios.

This Guidance's primary audience are listed or unlisted PE firms or GPs that manage PE direct investments, private debt, secondaries, and fund of funds.

This Guidance aims to:

- Provide practical guidance tailored to the unique business models and asset classes of PE firms on compiling a GHG inventory and developing SBTs for their operations and key asset classes
- Ensure consistency across PE firms' targets
- Identify PE firms' commonly-faced challenges to develop achievable targets and make recommendations to overcome these common barriers
- Raise the private equity industry's ambition by defining as well as promoting best practice in SBT setting while providing methods, criteria, guidance and tools to reduce barriers to adoption and implementation
- Provide a platform for sector-wide collaboration, facilitating the PE market shifts to transition to a zero carbon economy

The Guidance is expected to be updated annually to reflect the latest available climate science, target setting methods, and industry best practices.

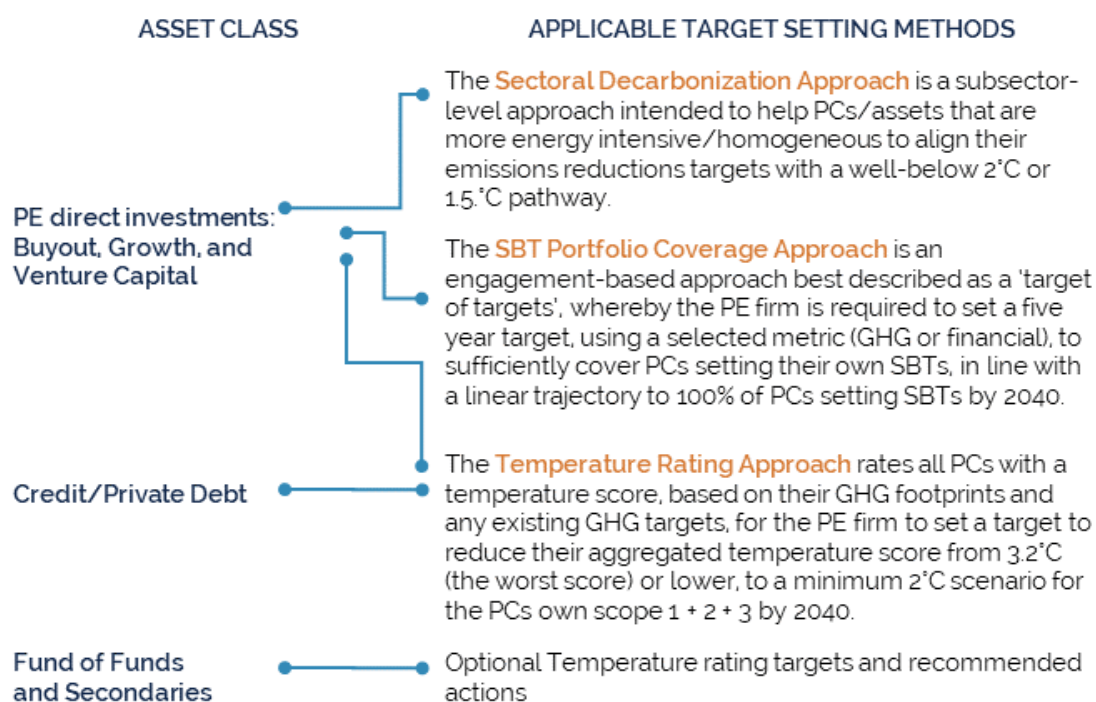
1.5 Summary Target Setting Requirements

In the PE sector context, the General Partner (GP) itself is usually a limited liability company (PE firm) and not the parent company by legal definition. As the entity arranging the strategy of the funds, the GP therefore serves as the reporting entity to consolidate its GHG inventory and set SBTs on a firm level.

GPs are required to set targets on their own scope 1 emissions (direct emissions from owned or controlled sources) and scope 2 emissions (indirect emissions from the generation of purchased energy e.g. petrol for company vehicles, or gas for heating at offices, and electricity procurement at offices), as well as required asset class activities as determined by the SBTi

within their scope 3, category 15 emissions³ - investments identified by this Guidance (i.e. portfolio company GHG emissions). As shown in Figure 1.1 below, this Guidance maps currently-available portfolio target setting methods from the SBTi Financial Sector framework to the most relevant asset classes in the private market.

Figure 1.1. Asset classes method mapping



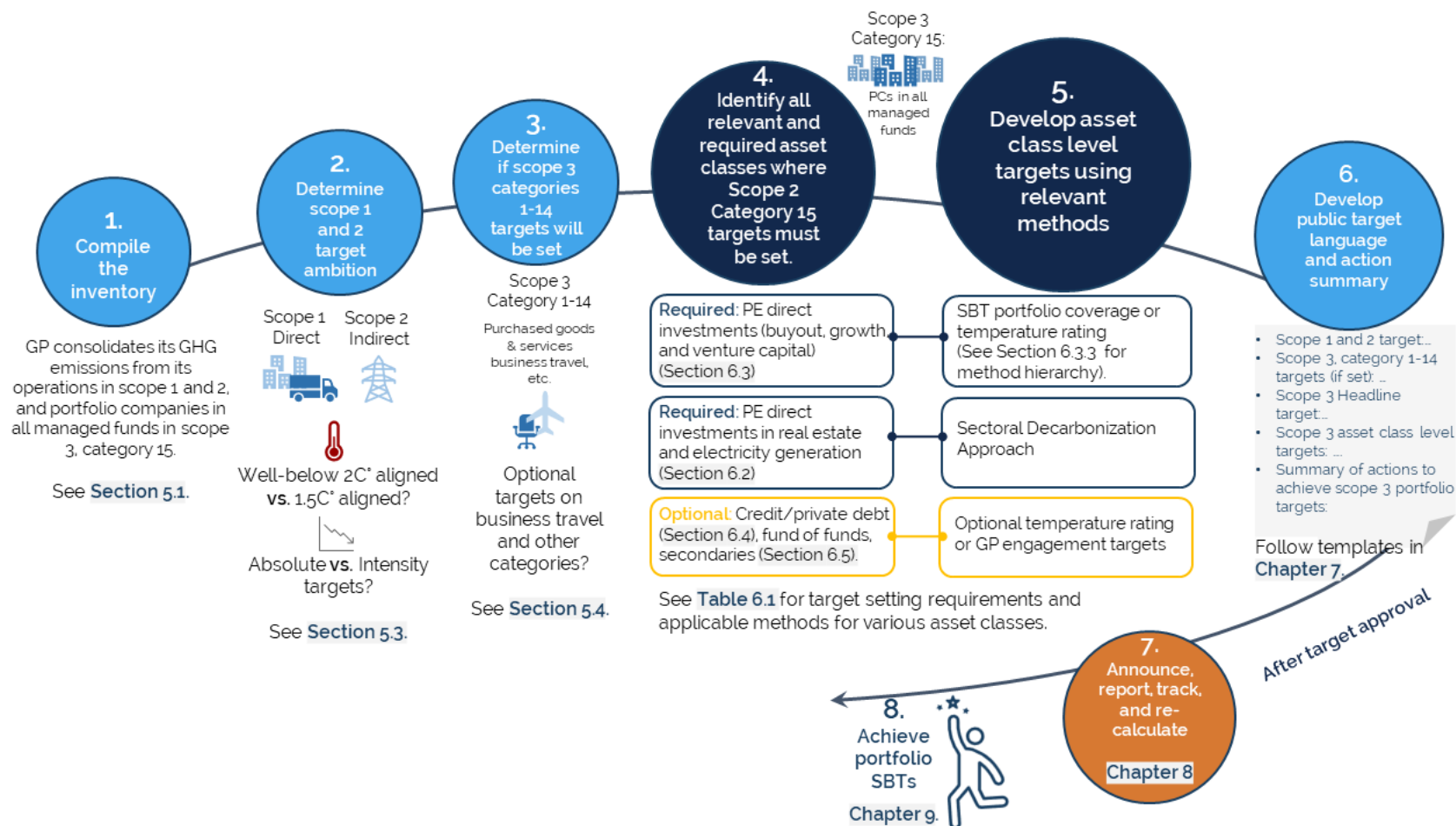
Source: Authors.

The steps outlined in the three figures below visualize the three methods a PE firm can follow for setting SBTs.

Firms primarily holding PE direct investments will likely need to cover most of their total investment activities by portfolio SBTs. For multi-strategy PE firms, multiple methods may need to be applied to simultaneously set SBTs across all required asset classes.

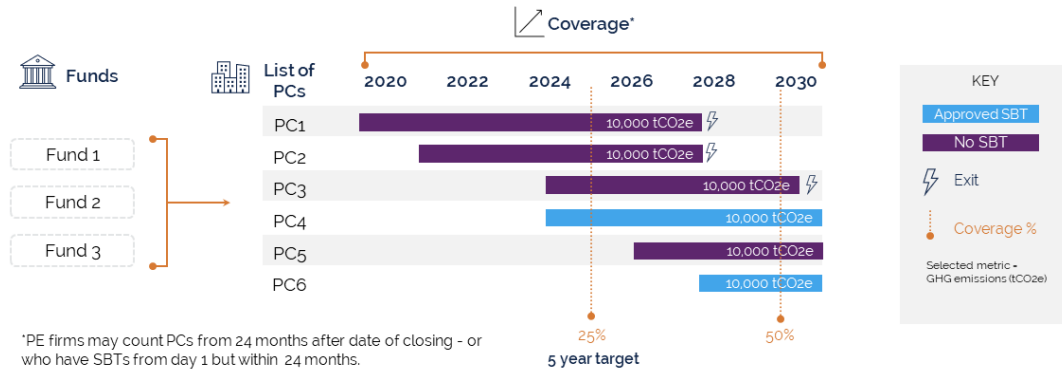
³ Scope 3 emissions refer to all indirect emissions, not included in scope 2, that occur in the value chain of the reporting company. Some examples of scope 3 activities are extraction and production of purchased materials; transportation of purchased fuels; and use of sold products and services.

Figure 1.2. Step-by-step process to develop SBTs for a PE firm's scope 1, scope 2, and scope 3 categories 1-14 and category 15 emissions (i.e., investment and lending activities).



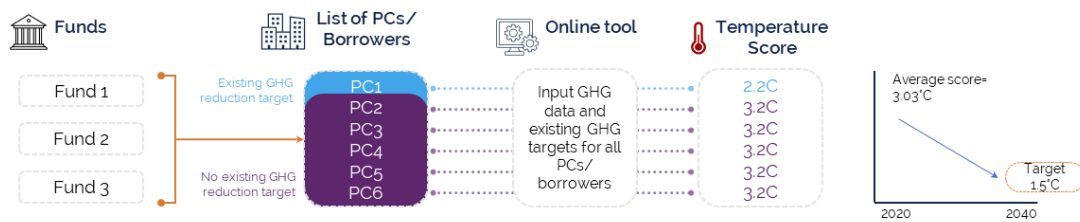
Source: Authors.

Figure 1.3. SBT portfolio coverage approach overview



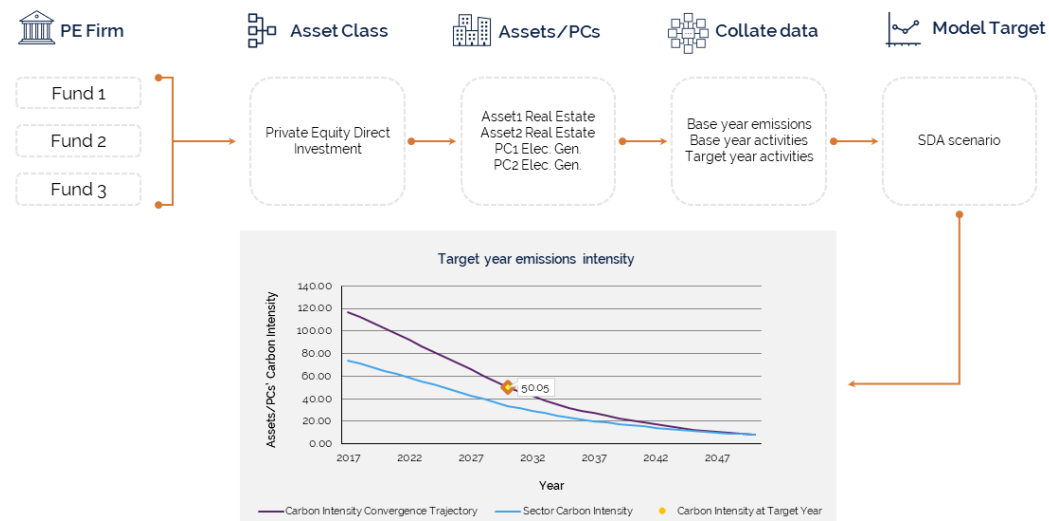
Source: Authors.

Figure 1.4. Temperature Rating Approach overview



Source: Authors.

Figure 1.5. Sectoral decarbonization approach overview



Source: Authors.

2. About This Guidance

2.1 Purpose of this Guidance

To enable meaningful SBT adoption by PE investors, the SBTi developed this Guidance for PE firms to set targets for their operations and investment portfolios, aligned with the reductions needed to stay in line with well-below 2 degrees Celsius and 1.5 degrees Celsius climate scenarios. The Guidance is tailored to the unique business models and asset classes of PE firms and provides practical navigation for PE firms to compile a GHG inventory and develop SBTs for their key asset classes. It identifies challenges PE firms commonly face to develop achievable targets and makes recommendations to overcome these common barriers. SBTi intends to raise the ambition of the PE industry by defining and promoting best practice in SBT setting, providing methods, criteria, guidance and tools to reduce the barriers to adoption and implementation.

A [glossary](#) with commonly used terms in this Guidance is available in Chapter 11.

2.2 Guidance Development Process

The Guidance was developed through an inclusive, transparent, and multi-stakeholder process with inputs from various sources, including a 32-member Expert Advisory Group (EAG) comprising individuals from members of the initiative Climat International (iCI), GPs, LPs, consultancies, academia, and NGOs with expertise in science-based target setting and/or voluntary emission reduction target setting for the PE sector. The EAG serves in a technical advisory capacity for the SBTi PE sector project, providing requested input. The Guidance was principally authored by the SBTi and Anthesis Group, a global sustainability consultancy, with support from the iCI in both road-testing and refining the Guidance.

The Guidance also received feedback from Environmental, Social, and Governance (ESG) working groups and industry associations in the PE sector. For more information, please consult the Acknowledgements section.

The project's key project milestones so far:

- **May-August 2021:** project authors developed the Guidance's first draft in close consultation with the project EAG and the SBTi finance team
- **August-September 2021:** the first draft was released for a broad public consultation through an online survey, one-on-one feedback sessions, and reviews by multiple PE ESG working groups and industry associations in the US and Europe. 30 survey responses were received, 70% of which came from PE firms. Over 60% of the responses came from the US and UK. Nine PE firms road-tested the SBT portfolio coverage method on their PE direct investments portfolios and subsequently submitted targets for an SBTi validation

- **October 2021:** project authors consolidated feedback received from multiple sources and identified key questions on asset class requirements and method applications. Dedicated discussions were held with subject-matter experts, the project EAG, and the SBTi finance team to best fulfill project goals and ensure coherence with the SBTi financial sector framework. Project authors subsequently improved the guidance to incorporate key decisions and respond to feedback received
- **Early November 2021:** The Guidance was launched during COP26 with the approval of committed PE firms. Additional promotional events were held to amplify the Guidance's adoption

2.3 Guidance audience

2.3.1 Overview of different types of PE firms

PE firms are fund management businesses that raise money from third parties to invest in private assets. The raised capital is accumulated in PE 'funds', specific vehicles and separate corporate legal entities. These are 'closed-end funds' not listed on public exchanges. Therefore, they are considered to be an alternative investment class. Whilst not legally the fund's parent company, the fund managers, also referred to as General Partners (GPs) and are typically its founders, set its direction and manage its investment and assets, under advice by a Limited Partner Advisory Committee (LPAC) that guide the GP during the lifetime of a fund. GPs may be private companies or, less commonly, publicly listed businesses. **GPs managing PE direct investments, private debt, secondaries, and fund of funds are this Guidance's main audience.** The Guidance is applicable to both GPs that are private companies and those that are publicly listed businesses. This Guidance is not intended for Limited Partners to set SBTs. Limited Partners of direct investments, fund of funds, etc., should refer to the main SBTi [FI Guidance](#).

Given the Guidance's current focus on PE direct investments, **PE firms that invest primarily in buyout, growth, and venture capital strategies** can use methods provided in this Guidance to cover the majority of their investment activities. **Multi-strategy firms** are able to develop targets on their PE direct investments, as well as set optional targets and take actions recommended by SBTi on other asset classes (e.g. private debt, secondaries, and fund of funds).

While the asset class-specific criteria and recommendations provided in this Guidance may also be adopted by other FIs to set targets on funds dedicated to PE or private debt, these two asset classes are optional in the current SBTi Finance Guidance (See Table 5.2 in the [FI Guidance](#)). Revisions to current requirements for other FIs on private equity and private debt are subject to updates of the SBTi finance framework.

2.3.2 General Partners vs. Limited Partners

Private equity investors are usually made up of General Partners (GPs) and Limited Partners (LPs). The GP primarily raises capital from third-party entities – including family offices and large institutional investors such as pension funds – into a specific fund vehicle (the ‘fund’) which will then be invested into certain types of assets according to an investment strategy. The third-party investors in the fund are referred to as the LPs. There are typically multiple LP organizations invested in a particular fund – however, single LP-funded vehicles do exist.

A GP is considered the owner of the partnership, actively involved in management of the partnership and company decision making. GPs identify the assets to be invested in, execute those investments and then manage them until eventual exit. GPs offer no liability protections for the partners.

An LP is an investor in the fund, investing capital in exchange for a portion of the profits of the partnership. However, they are not generally involved in daily operations. LPs are often referred to as silent partners, but do wield a meaningful influence on the GPs, placing some conditions on the GP in exchange for the original investment. This influence can be through Limited Partner Advisory Committees (LPACs) which are formed for the purpose of advising the GP on specific issues during the lifetime of a fund, including conflicts of interest and material changes to the governing documents of the fund where LPs' consents or approvals are required. LPs can also include high net wealth individuals, foundations, endowment funds, labor unions, insurance companies and other institutional investors such as hedge funds, mutual funds, etc.

On occasion, the LPs will make direct “co-investments” into specific investments, and take a direct equity share in that asset (Basri 2020).

2.4 Project/Sector Context

2.4.1 Economic impact of the private equity industry

In 2020, closed-ended assets under management (AUM) across private markets (private equity, private debt and real assets) grew to an all-time high of US\$7.3 trillion. Private equity (including buyout, venture capital, growth and other) grew to US\$4.5 trillion in 2020, an annualized 16.2% growth since 2015. It continues to outperform other private market asset classes, as well as public market equivalents, in nearly all measures (McKinsey & Company 2021).

Private equity represents 61% of total private markets AUM. Within private equity, buyout accounts for 50%, venture capital for 28%, growth for 17% while other accounts for 5%. North America accounts for 51% of the PE market, Europe 17%, Asia 28%, and the rest of the world for 4% (McKinsey & Company 2021).

The private equity market is expected to continue expanding and Deloitte forecasts a formidable growth in private equity over the next few years, with global PE AUM reaching US\$5.8 trillion by 2025 in a base case scenario (Deloitte Insights 2020). Expectations of increased allocations to private markets generally, and private equity specifically is a strong driver of the predicted growth. A vast majority of LPs, 79%, are indicating plans to increase allocations in private equity in the next few years (McKinsey & Company 2021).

Taking Europe as an example, 10.2 million people were employed at 23,009 portfolio companies at the end of 2019, ranging from startups and SMEs to large multinationals. That equates to 4.3% of Europe's active workforce and is on a par with the entire population of Sweden. Companies backed by private equity added 254,157 new net jobs in 2019. This is a growth of 5.5% on the previous year, far outstripping the average European job growth of 0.9%. Around half a million people in Europe found new work with private equity backed companies in 2018 and 2019 combined (InvestEurope 2020).

When considering the economic impact of private equity, it is important to look beyond the cumulative AUM figures, which are also amplified by capital market involvement in the sector – the number of individual businesses invested in with the aim of achieving significant growth must be considered. This can drive job creation with wider socio-economic benefits. The levels of ownership in and therefore influence over those businesses also has potentially significant benefits in terms of possible GHG reductions.

2.4.2 How is the private equity sector addressing climate?

Key stakeholders, such as employees, PCs, and LPs are increasingly seeking more sustainable corporate behaviors. According to Bain & Company (2021), a growing segment of the industry believes that investments in sustainability, social welfare and good governance require a different calculus. Nearly two-thirds of investors report that Environmental, Social & Governance (ESG) factors will be more integral to alternative assets as LPs continue to prioritize ESG investing. In response, more fund managers now hold ESG policies, and an increasing proportion are taking more substantial steps to drive ESG impact. Research increasingly suggests that individual companies improving on ESG factors also tend to provide the most return to shareholders (McKinsey & Company, 2021).

Climate change has been considered a priority in the broader ESG field and climate risk is becoming more readily acknowledged, and increasingly considered as a mandatory issue requiring monitoring and management across all asset types.

This has been driven by the private equity sector's increased recognition of the importance and impact of climate change, both positively and negatively, on the value of its investments. It is now generally accepted in the sector that climate change will have a profound impact on future markets and therefore it needs to be carefully considered, both in investment selection, and the management of assets once invested.

Private equity is becoming more cautious when investing in assets that could be impaired by the transition to a low carbon economy as well as the physical impacts of climate change. Inversely, there has been a meaningful redirection of capital into assets that believed to benefit from decarbonization or seen to have been specifically de-risked with to climate and wider ESG concerns in mind.

Private capital continues to be increasingly directed into ESG-focused investments: nearly \$400 billion in private capital was raised from 2015-2020, a quarter raised in 2020 alone. These investments included funds focused on ESG themes or funds committed to ESG principles. ESG-related capital grew rapidly in private equity, increasing by over 30% per year from 2015-2020.

Both GPs and LPs are now rapidly developing new capabilities across the industry to address climate and wider ESG requirements. Pre-acquisition ESG due diligence is now being factored into many firm processes, replacing the more traditional limited approach of Environmental Health and Safety (EHS) due diligence that focused on liability issues such as contaminated land and regulatory compliance. Climate risk assessments are increasingly part of that due diligence and are becoming a mandatory part of the ownership period, driven by stakeholder requirements and initiatives such as the [Task Force for Climate-related Financial Disclosures](#) (TCFD).

More GPs are increasingly asking all their PCs to prepare a full GHG emissions inventory, and set formal emissions reductions targets. However, the maturity of private markets in GHG emissions reporting remains broadly lower than (non-SME) public markets, as referenced by the Carbon Disclosure Project (CDP) in Table 2.1 below. As a crude indication, 0.03% of the investable private market is reporting to CDP on climate, and of these companies, just over half are reporting scope 1 and 2 emissions, while 37% have an active target to reduce emissions. It should be stressed that the investable private market for private equity is likely much lower, as each PE firm will focus on a carved-out area – the proportion will likely be far higher than 0.03%. According to Bloomberg, the public market suggests that 4.1% of listed companies globally report GHG data publicly in 2020 – an order of magnitude greater still.

Table 2.1. Carbon reporting maturity of the public markets vs private markets

Parameter	Public companies reporting to CDP	Private companies reporting to CDP
CDP respondents (total 9,500+)	c.4,200	c.5,300
No. of global public and private (investable) companies	c.41,000 (OECD 2019)	c.17,000,000 (S&P Global 2021) ⁴

⁴ Estimate of investable private universe, where S&P Global (2021) private market coverage was used as a proxy. Estimates of the total private universe are limited and vary by sources. 2019 data from PAN-Tribal Asset Management (2021) show that in Australia, United States, and United Kingdom, private companies outnumber public companies by 100 times, whereas figures in Table 2.1 show that the private universe outnumbers the public universe over 400 times.

Parameter	Public companies reporting to CDP	Private companies reporting to CDP
% CDP coverage	10.2%	0.03%
Have an active emissions reduction target, according to CDP	79%	37%
Report scope 1 emissions, according to CDP	97%	58%
Report scope 2 emissions, according to CDP	96%	48%

Source: CDP (2021),(S&P Global 2021).

2.5 What are Science-Based Targets?

2.5.1 What is the Science Based Target initiative?

The SBTi mobilizes the private sector to take urgent climate action. By guiding companies to set science-based targets, it enables businesses to tackle climate change while boosting their competitiveness in the transition to a net-zero economy.

The SBTi is a collaboration between [CDP](#), World Resources Institute ([WRI](#)), the World Wide Fund for Nature ([WWF](#)), and the United Nations Global Compact ([UNGC](#)) and is one of the We [Mean Business Coalition](#) commitments. The initiative defines and promotes best practice in SBT setting, offers resources and guidance to reduce barriers to adoption, and independently assesses and approves companies' targets.

2.5.2 SBTs for companies

Targets adopted by companies to reduce GHG emissions are considered 'science-based' if they are in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement—to limit global warming to well-below 2 degrees Celsius above pre-industrial levels and pursue efforts to limit warming to 1.5 degrees Celsius.

Since its launch in 2015, the SBTi has established itself as a leader in the corporate climate action arena. Among companies globally, there is a growing momentum for SBT setting through the SBTi. As of November 2021, 2,123 companies and 115 FIs have publicly joined the SBTi, of which 1,006 companies and FIs have had their targets officially approved. See all companies and FIs taking action [here](#).

For more detailed information on how a company can set SBTs through SBTi and its target validation service for companies, please refer to the SBTi Corporate Manual (SBTi 2021).

2.5.3 SBTs for SMEs

Recognizing the significant role small and medium-sized enterprises (SMEs) must play in global climate action – while considering the limited resources available to companies of this size – the SBTi has established a separate expedited route for SMEs. SBTi’s SME route is relevant to PE firms interested in engaging PCs with fewer than 500 employees to set approved scope 1 and 2 emissions targets.

SBTi defines SMEs as a non-subsidiary, independent company which employs fewer than 500 employees. By signing the [SME Target Setting Letter](#), SMEs commit to working towards achieving a scope 1 and 2 targets, measuring scope 3 emissions, and publicly reporting their scope 1 and 2 emissions and target progress on an annual basis. PE firms should direct PCs with more than 500 employees to the regular SBTi validation route (see section 2.5.2 above).

For more information on how SMEs can set targets through SBTi, please refer to Section “Small and medium-sized enterprises” in the *SBTi Corporate Manual* (SBTi 2021 p8).

2.5.4 SBTs for financial institutions

FIs are a vital link in the global transition to net-zero emissions. Through lending and investing, they have the power to redirect capital to sustainable technologies and innovative solutions of the future, and to those doing the most to prepare for a net-zero emissions economy. The SBTi launched the world’s first [SBT setting framework](#) for FIs in October 2020, allowing them to align their lending and investment portfolios with the level of ambition required by science.

Over 110 global FIs have already committed to setting SBTs and the SBTi will support them using this new framework to set targets. The criteria and methods set out in the [Financial Sector SBT Guidance](#) (SBTi 2021) serve as an important foundation for this Guidance. Future updates to the [FI Guidance](#) and SBTi’s target validation criteria and recommendations may trigger revisions to this Guidance.

3. Business Case for the Private Equity Sector to set SBTs

PE firms are uniquely positioned to influence other actors through their equity and debt portfolios. To drive Paris-aligned systemic decarbonization, it is critical to leverage shared influence to eliminate emissions reduction barriers.

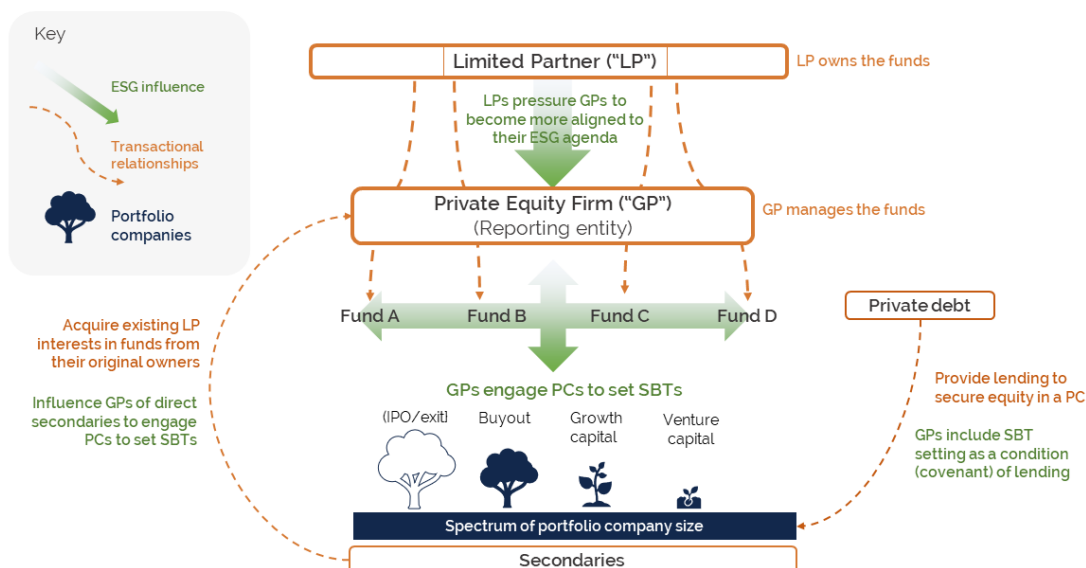
PE firms also have a fiduciary responsibility to return financial performance to investors, which often include institutional investors driven by financial performance – as opposed to non-financial performance such as GHG emissions reductions. PE firms' positioning influences their investors' mandates and will be critical to drive systemic decarbonization. ESG management issues including climate change are increasingly part of the investors' fiduciary duty, because of the risk to long-term performance.

PE firms typically have influence on a more granular level, as presented in Figure 3.1 below. GPs have an overarching influence of both LPs and PCs, as they typically control the fund strategies, principles of investment, who invests – and ultimately what is invested in. LPs actualize the investment cycle within the GPs' governance by choosing investors and PCs to invest in. In certain instances, LPs can influence GPs to alter their principles, e.g., LPs pressure GPs to become more aligned to the ESG agenda. Ultimately, PCs receive the investment and have varying levels of control based on the deal structure forged by the LP.

PE firms have most influence within their private equity direct investments with majority holds (>50%) over their PCs, while minority holds (<50%) have less influence over their PCs. Funds of funds are typically at arm's length from PCs and have less overall influence on direct investments, while secondaries are a later stage investment in the cycle and thus have even less influence. Direct lending in credit/private debt typically has less influence than equity, as debt alone simply has no equity share in the company.

Across all these fund strategies, PE firms should still try and influence GPs, LPs and PCs to adopt or align with SBTs where possible and disclose a record of engagement attempts for transparency.

Figure 3.1. Ecosystem of Influence



Source: Authors

PE firms that set SBTs commit to aligning their funds with the goals of the Paris Agreement. This commitment, along with the strategy taken to achieve the targets will contribute to the net-zero transition and bring substantial benefits to the PE firm.

Fundamentally, the business case for private equity to set SBTs is that it will protect asset value. Businesses that fail to decarbonize will become increasingly exposed as society seeks to decarbonize, whether due to rising energy costs, carbon taxation or their products and services becoming stranded. Private equity understands that in order for the value of its existing assets to continue to grow, they must be shown to be de-risked. To be able to raise additional capital, GPs must show investors issues are understood and future investment has been vetted.

Other benefits to setting SBTs include:



Building business resilience and increase competitiveness

Performing scenario analysis and applying methods to set SBTs enable PE firms to align their PCs with the zero-carbon economy, identifying opportunities, mitigating climate risks and increasing competitiveness by gaining insights into the transformations faced by the economic sectors they lend to and invest in.



Identifying and capitalizing on a range of opportunities

Growing investor demand for incorporating ESG factors in investment processes will enable better investment decisions, improve performance and reduce risk. Growing investment opportunities will be given the substantial investment needed for the low-carbon transition, estimated by McKinsey (2015) as requiring US\$6 trillion per year to 2030.



Driving innovation

As SBTs include a long-term vision, PE firms can provide investments that prioritize and accelerate the low-carbon transition. Engaging with their investors, GPs and LPs can develop innovative financial products and services enabling PCs to reduce emissions in the real economy.



Building credibility and reputation

Compared to targets initiated solely by PE firms, SBTs have higher credibility with stakeholders since they are based on the latest available science and validated against a set of robust criteria developed through a multi-stakeholder consultative process. PE firms with SBTs can serve as lower-risk options for long-term investors seeking to hedge climate-related risks. PE firms with SBTs also demonstrate sustainability leadership, which improves a PE firm's reputation with all stakeholders.



Influencing and preparing for public policy shifts

SBTs help PE firms adapt to changing policies and send a stronger signal to policymakers, allowing the industry to better influence policy decisions. PE firms with SBTs are much better positioned to respond to future regulatory adjustments as governments ramp up climate action.



Demonstrate leadership

While metrics for PE firms to set SBTs targets are new and best practice is still evolving, this is no reason to delay action. PE firms that undertake the target setting process lead the way and push the market toward the most credible and practical solutions.

4. SBTi Target Validation Criteria and Recommendations for PE Firms

This chapter presents the SBTi target validation criteria and recommendations for PE firms⁵. PE firms should thoroughly review the guidance before target development.

Version 5 of the [SBTi Corporate Criteria and Recommendations](#) (SBTi 2021) serves as the basis for Section I-V of the criteria, which addresses GHG inventory, scope 1 and 2 and scope 3, categories 1-14 targets. **Based on the context of the private equity industry, this Guidance revised criteria set out in the [FI Guidance](#) with an asterisk “*”.** In July 2021, in response to increasing urgency for climate action and the success of SBTs targets to date, the SBTi announced that the minimum ambition of scope 1 and 2 target will be lowered from “well below 2 degrees Celsius” to “1.5 degrees Celsius” above pre-industrial levels. The timeframe for targets will be shortened from a maximum of 15 to 10 years, as reflected in the latest criteria version 5. Criteria version 5.0 will be in effect from July 15th, 2022. Well below 2 degrees Celsius, or targets that are 10-15 years into the future, will be accepted until July 15th, 2022.

Where relevant, PE firms shall follow the GHG Protocol Corporate Standard (2015), Scope 2 Guidance (2015), and Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2020) for their emissions accounting and reporting. In the context of the criteria and this *Guidance*, the term “shall” is used to describe requirements related to relevant criteria and accounting guidance, whereas the term “should” is used to describe recommendations. The SBTi recommendations are important for transparency and best practices but are not required. Unless otherwise noted, all criteria apply to scopes 1, 2, and 3.

Criteria are labeled with ‘**C**’ and recommendations are labeled with ‘**R**’ below. The terms “shall” or “must” are used throughout this document to **indicate what is required for targets to be in conformance with this Guidance**. The term “should” is used to indicate a recommendation, but not a requirement. The term “may” is used to indicate an option that is permissible or allowable.

4.1 GHG Emissions Inventory and Target Boundary

4.1.1 Target boundary

Criteria

***PE-C1 – Scopes:** The GP shall serve as the reporting entity consolidating the GHG inventory for its operations (i.e., scope 1 and 2) and its investment and lending activities within its managed funds on all relevant and required asset classes (as set out in Table 6.1), in their

⁵ The [FI Guidance](#) sets out a list of target validation criteria and recommendations that are broadly relevant to FIs’ GHG emissions inventory and target boundaries, and introduces the concepts of organizational and operational boundaries from the GHG Protocol Corporate Standard. Based on the context of the private equity industry, this Guidance updated a number of criteria set out in the [FI Guidance](#).

target submission, in accordance with boundary criteria. (i.e., scope 3 category 15)⁶. See Figure 5.1 for an illustration of this criterion. Targets shall be submitted at the GP level. The emissions scopes of PCs' emissions that must be covered are detailed in the method-specific criteria PE-C17 below.

PE-C2 – Subsidiaries: PE firms should submit targets at the group or parent company level for all of its subsidiaries/funds, as the reporting entity of their PCs (equity) and borrowers (credit). LPs are not subsidiaries of GPs or considered to be the primary reporting entity for PCs and borrower companies. The PE firms' target must include all emissions as the reporting entity in line with the emissions boundaries as set out in Chapter 5.

Recommendations and additional guidance

PE-R1 – Setting organizational boundaries: The SBTi recommends that a PE firm's organizational boundary, as defined by the [GHG Protocol Corporate Standard](#), is consistent with the organizational boundary used in the firm's financial accounting and reporting procedures.

4.1.2 GHG emissions coverage

Criteria

PE-C3 – Greenhouse gases: Scope 1 and 2 targets must cover all relevant GHGs as required by the GHG Protocol Corporate Standard. If optional targets on scope 3, categories 1–14 are set, they shall also cover all relevant GHGs. For PE firms' scope 3, category 15 targets, coverage of all relevant GHGs is recommended, where possible. If PE firms are unable to cover all GHGs for scope 3 portfolio targets, they shall cover CO₂ emissions as a minimum.

PE-C4 – Significance thresholds: PE firms may exclude up to 5% of their own scope 1 and scope 2 emissions combined in the boundary of the inventory and target⁷.

⁶ There are two primary reasons that SBTi recommends that PE firms account for PCs' emissions in scope 3 category 15, even if they have operational or financial control over their PCs. Firstly, if a PE firm accounts for the scope 1 and 2 emissions of its PCs in its own scope 1 and 2, it will have to set targets using methods specific to scope 1 and 2 emissions, rather than methods designed for FIs' portfolios such as the SBTi portfolio coverage method or Temperature Rating. Secondly, PE firms will experience large fluctuations in their scope 1 and 2 emissions as their portfolio turnover changes every couple of years, which makes target tracking challenging.

⁷ Where PE firms' scope 1 or 2 emissions are deemed immaterial (i.e., under 5% of total combined scope 1 and 2 emissions), PE firms may set their SBT solely on the scope, covering more than 95% of the total scope 1 and 2 emissions. PE firms must continue to report on both scopes and adjust their targets as needed, in accordance with the GHG Protocol's principle of completeness and as per PE-C21 - Mandatory target recalculation.

4.2 Method Validity

Criteria

PE-C5 – Method validity: Targets must be modeled using the latest version of methods and tools approved by the SBTi. Targets modeled using previous versions can only be submitted to the SBTi for an official validation within six months of the publication of the revised method or relevant sector-specific tools.

4.3 Emissions Accounting Requirements

Criteria

PE-C6 – Scope 2 accounting approach: PE firms shall disclose whether they are using a location- or market-based accounting approach as per the GHG Protocol Scope 2 Guidance to calculate base year emissions and track performance against a science-based target. GHG Protocol requires measuring and reporting scope 2 emissions using both approaches. However, a single and consistent approach shall be used for setting and tracking progress toward a SBT (e.g. using a location-based approach for both target setting and progress tracking).

PE-C7 – Bioenergy accounting: CO₂ emissions from the combustion, processing and distribution phase of bioenergy as well as land use emissions and removals⁸ associated with bioenergy feedstocks, shall be reported alongside a company's GHG inventory. Furthermore, CO₂ emissions from the combustion, processing and distribution phase of bioenergy as well as the land use emissions and removals associated with bioenergy feedstocks shall be included in the target boundary when setting a science-based target (in scopes 1, 2, and/or 3, as relevant) and when reporting progress against that target.

Land-related emissions accounting shall include CO₂ emissions from direct land use change (LUC) and non-LUC emissions, inclusive of N₂O and CH₄ emissions from land use management. Including emissions associated with indirect LUC is optional.

Companies are expected to adhere to any additional GHG Protocol Guidance on bioenergy accounting to maintain compliance with this specific criterion.

PE-C8 – Carbon credits: The use of carbon credits must not be counted as emission reductions toward the progress of companies' near-term or long-term science-based targets.

PE-C9 – Avoided emissions: Avoided emissions fall under a separate accounting system from corporate and PE firms' inventories and do not count toward SBTs.

⁸ The positive impact of exceeding zero emissions due to biogenic removals shall not be accounted for in a company's target formulation or as progress towards SBTs. Removals not directly associated with bioenergy feedstock production will not count as progress towards SBTs or net emissions in a company's GHG inventory.

Recommendations and additional guidance

R2 – Biofuels certifications: The SBTi recommends that companies using or producing biofuel(s) for transport should support their bioenergy GHG accounting with recognized certifications to disclose that the data on land-related emissions and removals represents the relevant biofuel feedstock production.

R3 — Bioenergy data reporting: The SBTi recommends that companies report direct biogenic CO₂ emissions and removals from bioenergy separately. At a minimum, emissions and CO₂ removals associated with bioenergy shall be reported as net emissions according to C4 above – however, companies are encouraged to also report gross emissions and gross removals from bioenergy feedstocks.

4.4 Target Formulation

4.4.1 Timeframe

Criteria

PE-C10 – Base and target years: Targets must cover a minimum of five years and a maximum of 10 years from the date the target is submitted to the SBTi for validation⁹. The choice of base year must be no earlier than 2015.

PE-C11 – Progress to date: The minimum forward-looking ambition of targets is consistent with reaching net-zero by 2050, assuming a linear absolute reduction, linear intensity reduction, or intensity convergence between the most recent year and 2050 (not increasing absolute emissions or intensity).¹⁰

Recommendations and additional guidance

PE-R4 – Target year: Targets covering more than 10 years from the date of submission are considered long-term targets. PE firms are encouraged to develop such long-term targets up to 2050 in addition to mid-term targets required by PE-C6. Long-term targets must at least be consistent with the level of decarbonization required to keep global temperature increase to 1.5 degrees Celsius compared to pre-industrial temperatures to be validated and recognized by the SBTi.

PE-R5 – Consistency: It is recommended that PE firms use the same base and target years for all near-term targets.

⁹ For targets submitted for an official validation in the first half of 2022, the valid target years are 2026-2031 inclusive. For targets submitted in the second half of 2022, the valid target years are between 2027-2032 inclusive.

¹⁰ For targets submitted for validation in 2022, the most recent inventory data submitted must be for 2019 at the earliest. Historically, the SBTi has only allowed two years prior as valid most recent year inventories – however, due to the COVID-19 pandemic, the SBTi will accept 2019 inventories in 2022.

4.5 Target Ambition

4.5.1 Scope 1 and 2 near-term targets

Criteria

PE-C12 — Level of ambition for scope 1 and 2 targets: Scope 1 and scope 2 targets must at least be consistent with the level of decarbonization required to keep global temperature increase to 1.5 degrees Celsius compared to pre-industrial temperatures.

PE-C13 — Absolute targets: Absolute reductions must be at least as ambitious as the minimum of the approved range of emissions scenarios consistent with the 1.5 degrees Celsius goal.

PE-C14 — Intensity targets: Intensity targets for scope 1 and scope 2 emissions are only eligible when they are modelled using an approved 1.5 degrees Celsius sector pathway applicable to companies' business activities.

Recommendations and additional guidance

PE-R6 – Choosing an approach: The SBTi recommends using the most ambitious decarbonization scenarios that lead to the earliest reductions and the least cumulative emissions.

4.5.2 Near-term targets on scope 3, categories 1- 14

Recommendations and additional guidance

***PE-R7 – Measuring emissions and setting targets for Scope 3, Categories 1–14:** It is recommended for PE firms to measure and set target(s) on categories 1–14 emissions as defined by the [GHG Protocol Corporate Standard](#). If PE firms set optional near-term scope 3 category 1-14 targets covering individual or multiple categories, they must at least be aligned with methods consistent with the level of decarbonization required to keep global temperature increase well-below 2 degrees Celsius compared to pre-industrial temperatures to be approved by the SBTi.

4.5.3 Scope 2 Renewable electricity targets

Criteria

PE-C15 — Renewable electricity: Targets to actively source renewable electricity at a rate is consistent with 1.5 degrees Celsius scenarios are an acceptable alternative to scope 2 emission reduction targets. The SBTi has identified 80% renewable electricity procurement by 2025 and 100% by 2030 as thresholds (portion of renewable electricity over total electricity use) for this approach in line with the recommendations of [RE100](#). PE firms that already source electricity at or above these thresholds shall maintain or increase their use of renewable electricity to qualify.

Recommendations and additional guidance

PE-R8 – Purchased Heat and Steam: For science-based target modeling purposes using the Sectoral Decarbonization Approach (SDA)¹¹, it is recommended that PE firms model purchased heat and steam related emissions as if they were part of their direct emissions (i.e., scope 1).

PE-R9 – Efficiency Considerations for Target Modeling: If PE firms are using a method that does not already embed efficiency gains for the specific sector, market, and decarbonization projected for the power sector based on a 1.5 degrees Celsius scenario, it is recommended that these factors be considered when modeling electricity-related scope 2 targets.

4.6 Scope 3 – Portfolio Targets

Criteria

***PE-C16 – Requirement to set target(s) on investment and lending activities:** All PE firms shall set targets on their investment and lending activities, irrespective of the share of quantified scope 3 portfolio emissions – compared to the total scope 1 + 2 + 3 emissions of the PE firm. Recommended methods for different asset classes are defined in Required Activities and Methods Table 6.1.

***PE-C17 – Portfolio target boundary:** PE firms shall set targets on all relevant 'Required Activities' outlined in Table 6.1 following the minimum boundary coverage requirement.

***PE-C18.1 – Sectoral Decarbonization Approach targets¹²:** PE firms' targets using the SDA are considered acceptable when the following conditions are met:

- Boundary: PE firms shall set SDA targets as specified in the Asset Class Required Activities and Methods Table 6.1.
- Ambition: Portfolio SDA targets must meet minimum ambition indicated by sector-specific methods for well-below 2 degrees Celsius pathways. 1.5 degrees Celsius targets are encouraged where sector pathways are available.¹³
- Timeframe: Portfolio SDA targets must cover a minimum of five years and a maximum of 10 years¹⁴ from the date the PE firm's target is submitted to the SBTi for an official validation. PE firms are further encouraged to develop long-term targets in addition to the required midterm targets.¹⁵

¹¹ The Sectoral Decarbonization Approach (SDA) is a method for setting physical intensity targets that uses convergence of emissions intensity. An intensity target is defined by a reduction in emissions relative to a specific business metric, such as company's production output (e.g., metric tonne CO₂e per tonne product produced). The SDA assumes global convergence of key sectors' emissions intensity by 2050.

¹² See Section 9.3 for further information regarding real estate asset class.

¹³ At the moment, a 1.5-degrees Celsius pathway is only available for the power generation sector.

¹⁴ SDA targets submitted before July 15th, 2022 may still have target years that are 10-15 years into the future.

¹⁵ 2050 targets will not be validated until SBTi's net-zero standard for FIs is available.

- Scope of targets: The scope of PE firms' targets shall be consistent with the scope required by the relevant method¹⁶.

***PE-C18.2 – Portfolio coverage targets¹⁷:** PE firms' targets to drive the adoption of science-based emissions reduction targets by PCs are considered acceptable when the following conditions are met:

- Boundary: PE firms shall set SBT portfolio coverage targets as specified in the Asset Class Required Activities and Methods Table 6.1. In practice, this means SBTs covering private equity shall include PCs in all required categories as specified in Table 6.1. in the denominator for the calculation of percentage SBT coverage, detailed below. For purposes of target setting, tracking, and reporting, the PE firm may choose to exclude PCs acquired 24 months or less and without validated SBTs. This is to reflect the nature of the PE industry where the investee company typically undergoes transformational change post investment. However, PE firms should support PCs to set and obtain SBTi validation as soon as possible, and the SBTi suggests this period should not exceed 12 months from acquisition.
- Target Level of Ambition: the PE firm shall commit to having its PCs set approved SBTs so all current and future funds, starting from the base year selected by the firm, are on a linear path to 100% SBT coverage by 2040, at the latest.
- For example, a PE firm starting with 10% SBT company coverage in 2020 would need to increase coverage by 4.5% per year ($90 / (2040 - 2020) = 4.5$) and reach at least 32.5% ($10 + [5 \times 4.5] = 32.5$) coverage by 2025.
- Target Formulation: In public target language, PE firms shall include the percentage of PCs that will have their SBTs approved in the target year using the selected metric.
- $\% \text{ SBT coverage} = (\text{Number of PCs with approved SBTs} \times \text{selected metric}) / (\text{Number of all existing PCs} \times \text{selected metric})$
- Target Timeframe: The PE firm must set a short-term coverage target to be fulfilled within a maximum of five years from the date the firm's targets are submitted to the SBTi for validation. Fulfillment of portfolio coverage targets means that the PCs' SBTs have been approved by SBTi. PE firms are further encouraged to set a long-term coverage target for when the PE firm's portfolio coverage reaches, and maintains, 100% coverage. PE firms are encouraged to achieve 100% SBT portfolio coverage earlier than 2040.
- Scope of PC Targets: PCs shall follow the latest SBTi criteria for companies to set scope 1 and 2 targets, as well as scope 3 targets when their scope 3 emissions are more than 40% of total scope 1, 2, and 3 emissions. If the PC has fewer than 500

¹⁶ A list of the sector-specific guidance and requirements is available in Section 9 of the [SBTi Target Validation Protocol](#).

¹⁷ See section 9.3 for further information regarding portfolio coverage approach. This criterion also applies to SBT portfolio coverage set by other types of FIs on their private equity funds.

employees and thus falls into SBTi's definition of SME, they shall follow the latest requirements outlined in the [SME streamlined route](#).

***PE-C18.3 – Portfolio Temperature Rating targets¹⁸**: PE firms' targets to align the Temperature Rating of their asset classes in line with the Paris Agreement's ambition are considered acceptable when the following conditions are met:

- Boundary: PE firms shall set Portfolio Temperature Rating targets as specified in the Asset Class Required Activities and Methods (Table 6.1).
- Target level of ambition: PE firms shall align their portfolio scope 1 + 2 temperature score with a minimum well-below 2 degrees Celsius scenario and additionally align their portfolio to a minimum 2 degrees Celsius scenario for the scope 1,2 and 3 portion by 2040. Alignment with more ambitious scenarios such as 1.5 degrees Celsius is highly encouraged. Separate targets for scope 1 + 2 and for scope 1,2 and 3 shall be set.¹⁹
- PE firms shall commit to reducing their PC/borrower companies' temperature scores such that the PE firm is on a linear path to the stated goal by 2040.
- For example, a PE firm starting with scope 1 + 2 portfolio temperature score of 2.9°C in 2020 would need to decrease its portfolio (PCs/ borrower companies) temperature by at least 0.0575°C per year $[(2.9^{\circ}\text{C} - 1.75^{\circ}\text{C}) / [2040 - 2020]] = 0.0575^{\circ}\text{C}$ and reach at least a 2.61°C portfolio temperature score by 2025.
- For example, a PE firm starting with scope 1,2 and 3 portfolio temperature score of 3.2°C in 2022 would need to decrease its portfolio temperature by at least 0.06°C per year $[(3.2^{\circ}\text{C} - 2^{\circ}\text{C}) / [2040 - 2020]] = 0.06^{\circ}\text{C}$ and reach at least 3.02°C portfolio temperature score by 2025 (See Figure 6.3 for a visualization).
- Target timeframe: Portfolio alignment short-term targets must be fulfilled within a maximum of five years from the date the targets are submitted to the SBTi for official validation. A long-term target must also be fulfilled by 2040. PE firms are highly encouraged to achieve the targeted portfolio temperature score before 2040.
- Scope of borrower company targets: PE firms' borrowers' targets shall include coverage of scope 1 and 2 emissions, as well as scope 3 emissions when their scope 3 emissions are more than 40% of total emissions.

Recommendations and additional guidance

***PE-R10 – Phaseout of thermal coal investments**: Within six months of target approval, PE firms should establish a policy to phase out financial support to thermal coal across all their activities, in line with a full global phaseout by 2030. This includes immediately ceasing all financial or other support to thermal coal companies²⁰ building new infrastructure or investing

¹⁸ See section 6.3 for further information on the Temperature Rating Approach.

¹⁹ PE firms are encouraged to reduce their scope 1 and 2 temperature score to 1.5 degrees Celsius and scope 1, 2, and 3 temperature score to well-below 2 degrees Celsius by 2040, to align with SBTi's latest V5 corporate criteria.

²⁰ Coal companies are defined as businesses with greater than 5% of revenues from thermal coal mining, exploration and drilling, mining services, processing, trading, transport and logistics, equipment manufacturing,

in new or additional thermal coal expansion, mining, production, utilization (i.e., combustion), retrofitting, or acquiring of coal assets. PE firms should implement ESG screening to ensure there are no future investments in coal companies, regardless of the fund strategy.

***PE-R11– Disclosure of fossil fuel investments and lending:** PE firms with approved SBTs should annually disclose the annual investments, direct project financing and lending to fossil fuel (oil, gas, and thermal coal) projects and companies²¹ in U.S. dollar amount or other relevant currencies (See PE-R12 for further disclosure recommendations).

PE firms that fail to phase out coal investments or disclose fossil fuel investments and lending make themselves susceptible to risk of stranded assets and reputational damage.

4.7 Annual Disclosure and Implementation Reporting²²

Criteria

***PE-C19 – Disclosure of target(s) portfolio coverage:** At the time of target announcement and alongside approved targets, PE firms shall disclose the percentage of their total investment and lending activities covered by portfolio targets on the SBTi website. This metric should represent the magnitude of PE firms' core business activities, which may involve any combination of asset classes outlined here. Examples include total financed emissions associated with investment and lending activities (most recommended if quantified), total invested capital (if the firm only invests in PE direct investments), and total assets under management (for multi-strategy firms).

***FI-C20 – Implementation Reporting:** When submitting its target, the PE firm shall submit a brief summary of how it intends to meet its scope 3 portfolio targets to conform with the template provided in the target submission form, intended to create transparency. It will not be used as a basis for target validation. When the target is announced, this summary shall be made public²³.

***PE-C21 – Tracking and reporting target progress:** After target approval, the SBTi requires annual disclosure of scope 1 and 2 GHG emissions, disclosure of progress against all approved scope 1, 2, and 3 targets, as well as disclosure of actions/strategies taken during the

operations and maintenance (O&M) services, engineering, procurement and construction (EPC) services, transmission and distribution of coal-fired electricity, coal to liquids (CtLg) and coal to gas (CtG).

²¹ This includes:

(1) Companies that have a revenue share in the exploration, extraction, refining, transportation and distribution, storage, retailing, marketing, trading, or power, heat, or cooling production from oil and gas. PE firms should disclose the threshold used to delineate oil and gas companies; the SBTi recommends a 5% threshold and for the threshold to not exceed 30%.

(2) In line with PE-R10, companies with greater than 5 % of revenues from thermal coal mining, exploration and drilling, mining services, processing, trading, transport and logistics, equipment manufacturing, operations and maintenance services, engineering, procurement and construction services, transmission and distribution of coal-fired electricity, coal to liquids and coal to gas.

²² See Chapter 8 for further information on reporting.

²³ PE firms will have opportunities to review the summary language before the SBTi publishes it on the website.

year to meet scope 3 portfolio targets. If optional targets on scope 3, categories 1–14 are submitted and approved by the SBTi, their progress shall also be included in the disclosure of progress. Annual disclosure of scope 3 emissions is encouraged but not required.

Recommendations and additional guidance

PE-R12 - Where to disclose: There are no specific disclosure for scope 1 and 2 inventories, progress against all approved targets, and actions or strategies to meet scope 3 portfolio targets should be disclosed, as long as they are publicly available. Recommendations include annual reports, sustainability reports, TCFD disclosures, the PE firms' website, or CDP's annual questionnaire.

4.8 Recalculation and Target Validity

Criteria

PE-C22 – Mandatory target recalculation: To ensure consistency with most recent climate science and best practices, targets must be reviewed, and – if necessary – recalculated and revalidated every five years minimum. PE firms with an approved target requiring recalculation must follow the most recently applicable criteria at the time of resubmission. Targets should be recalculated and reset as needed, to reflect significant changes that would compromise the existing targets' relevance and consistency.

PE-C23 – Target validity: PE firms with approved targets must announce their target publicly on the SBTi website within six months of the approval date. Targets unannounced after six months will have to go through the approval process again unless a different publication timeframe was agreed with the SBTi.

Recommendations and additional guidance

***PE-R13 – Triggered target recalculation:** Targets should be recalculated to reflect significant changes that would compromise relevance and consistency of the existing target.

Changes that should trigger a target recalculation include:

- Activities or assets previously excluded from inventory or target boundary grow significantly or exceed allowable exclusion limits
- Significant changes in institutional structure and activities affecting the PE firm's target boundary or ambition, e.g., acquisitions, divestitures, mergers, insourcing or outsourcing, shifts in product or service offerings, changes in proportion of investments by asset classes, addition of new products covered by available methods, major updates in the latest climate science). For example, if the PE firm changes strategy or introduces a new strategy not already covered by an existing SBTi method, if the PE firm has new targeted sectors that would significantly change the GHG footprint of the PE firms' portfolio (e.g., a carbon-intensive energy fund strategy), or if the PE firm changes investment horizon significantly shifting the total length of average hold time of an investment

- Significant changes in data used to calculate the targets such as discovery of significant errors or several significant cumulative errors
- Other significant changes to projections or assumptions used with SBT setting methods

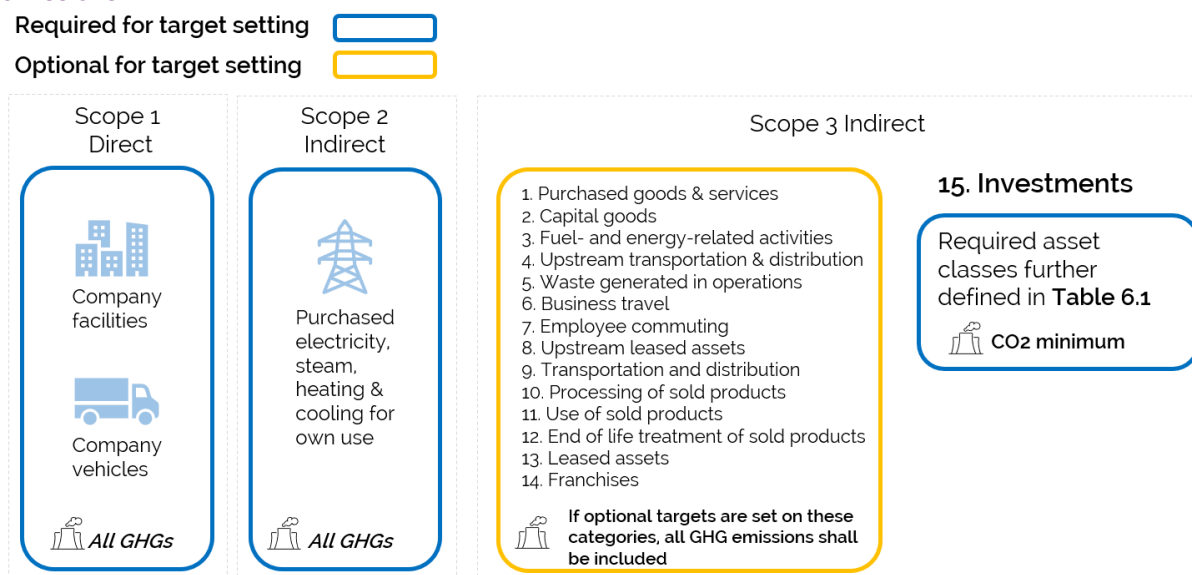
PE-R14 – Validity of target projections: Whenever relevant, the SBTi recommends that PE firms check the validity of target-related projections annually. The PE firm should notify the SBTi of any significant changes, report these major changes publicly, and consider a target recalculation, as needed.

5. How to set SBTs for PE firms

5.1 Overview of scope 1,2 and 3 target setting requirements

This chapter describes the steps a PE firm must take to compile its GHG inventory, determine its scope 1 and 2 target ambition, and decide whether optional targets on scope 3 categories 1-14 will be set. While a PE firm's Scope 3 Category 15 emissions from its portfolio companies are likely the most significant portion of its total scope 1,2, and 3 emissions, the steps described in this chapter serve as important foundations. Figure 5.1 below is an overview of SBTi's target setting and GHG emissions measurement requirements for PE firms.

Figure 5.1. Overview of target setting and GHG coverage requirements for PE firms' scope 1, 2 and 3 emissions.



Source: Authors, adopted from GHG Protocol Corporate Standard.

5.2 Compile a GHG inventory

The first step to compile a GHG inventory is for the parent company as the reporting entity (i.e., GP) to select an approach to define its organizational boundary and consolidate its GHG emissions. The selected consolidation approach must be applied consistently throughout its institutional structure and the boundaries of SBTs must align with the organizational boundary.

In the context of the private equity sector, while the GP itself is usually a limited liability company (PE firm) and not the parent company by legal definition, it is responsible for all management decisions and has unlimited liability for the actions of the fund (Phalippou 2017). As the entity that's arranging the strategy of the funds, the GP shall serve as the reporting entity to consolidate the corporate level GHG inventory (**PE-C1**, Chapter 4 above).

After selecting an organizational boundary, a PE firm shall establish its operational boundary to distinguish between direct emissions from sources it owns or controls (scope 1 emissions) from indirect emissions (scope 2 and scope 3 emissions). The Corporate Value Chain (Scope 3) Accounting and Reporting Standard categorizes scope 3 emissions into 15 categories, where category 15 (investments) covers emissions associated with equity and debt investments in the reporting year, not included in scope 1 and 2. In some cases, a PE firm may have operational or financial control over its investees, as defined above. For consistency and simplification, PE firms should include all investment and lending activities in scope 3, category 15 in the target setting process.

GHG Protocol Corporate Standard defines three approaches for determining the organizational boundaries of institutional GHG inventories: operational control, financial control, and equity share. For the purpose of setting SBTs, PE firms are recommended to use the operational control or financial control approach:

- **Operational control:** A firm has operational control if the firm or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation. This criterion is consistent with the current accounting and reporting practice of many companies reporting on emissions from facilities for which they hold the operating license. Only expected in rare circumstances, if the firm or one of its subsidiaries is the operator of a facility, it will have the full authority to introduce and implement its operating policies and thus has operational control. Under the operational control approach, a firm accounts for 100% of emissions from operations over which it or one of its subsidiaries has operational control.
- **Financial control:** The firm has financial control if the firm has the ability to direct the financial and operating policies of the latter with a view to gaining economic benefits from its activities. For example, financial control usually exists if the firm has the right to the majority of benefits of the operation, however these rights are conveyed. Similarly, a firm is considered to financially control an operation if it retains the majority risks and rewards of ownership of the operation's assets.

Please see Chapter 3 of the [GHGP Corporate Standard](#) for more information on this topic.

5.3 How to set an SBT for scope 1 and 2 emissions

Scope 1 and 2 emissions are the starting point for setting SBTs. While scope 3 emissions, in particular category 15 (investments) are likely the most material category for PE firms, scope 1 and 2 targets consistent with a 1.5 degrees Celsius pathway at a minimum are required for all PE firms by the latest SBTi criteria version 5 (well-below 2 degrees Celsius aligned targets are accepted until July 15th, 2022).

5.4 How to set an SBT for scope 3, categories 1 to 14

For PE firms to focus their efforts on investment and lending activities, the SBTi only recommends but does not require they measure emissions and set targets on scope 3, categories 1–14. Section 5.5 of the [FI Guidance](#) provides further guidance on this topic.

6. How to Set SBTs for Scope 3, Category 15

6.1 Overview of Asset Class Categorization and Target Setting Requirements

Private equity GP firms now come in a range of sizes from small entities through to multi-national businesses with over a thousand staff members. Originally focused on direct investments, they have grown and diversified to consider a variety of different asset types or classes for investment. Firms will typically raise and invest multiple funds over time. While many may remain specialized in one asset class (potentially raising funds focused on different industrial sectors or businesses with differing levels of maturity and/or financial strength), some will make investments in multiple types of asset classes, such as multi-strategy funds.

The most typical asset class groupings and the relevant target setting boundary and methods are presented in Table 6.1 below and expanded upon in Section 6.2. While many of these groupings can then be subdivided into numerous specific asset classes, for the purposes of this Guidance, they have been broken down to the level at which an SBT methodology is considered to be required. SBTi considered multiple factors when determining the current target boundary and method requirements.

Table 6.1. Asset class required activities and methods.

Target setting requirement	Legend	Description
Required		Shall be included in the target boundary if relevant
Optional		Methods are available for these asset classes, but they are optional. There is no minimum coverage requirement on optional activities, and PE firms may decide the percentage coverage at their own discretion.

Asset Class		Target Boundary Requirement	Applicable Target Setting methods
Private equity direct investments ¹	Electricity Generation → Go to section	Required: 100% of base year activity (kWh)	Required: SDA
	Real Estate → Go to section	Required: 67% coverage by base year activity in square meter	Required: SDA
	Other PE direct investments (beyond electricity generation and real estate) → Go to section		

Asset Class		Target Boundary Requirement	Applicable Target Setting methods
	<p>Buyouts, including co-investments</p> <p>Growth capital</p> <p>≥ 25% of the fully diluted shares of the PC AND board seat(s)</p>	<p>Required: 100% coverage of PCs that meet the shares and board seat condition</p>	<p>SBT Portfolio coverage: 100% of PCs meeting the shares and board seat conditions included in the % SBT coverage calculation</p> <p>SBTi recommends that PE firms use SBT portfolio coverage to cover majority-controlled PCs</p> <p>Temperature Rating: 100% of PCs that meet the shares and board seat conditions included in the Temperature Rating assessment</p>
	<p>Venture capital, including startups, with:</p> <ul style="list-style-type: none"> - > 50 people <u>AND</u> - > €10 million annual revenue OR €10 million balance sheet total <u>AND</u> - In existence for more than 5 years <p>≥ 15% of the fully diluted shares of the PC AND board seat(s)</p>	<p>Required: 100% coverage of PCs that meet the size, shares, years of existence and board seat condition</p>	<p>SBT Portfolio coverage: 100% of PCs meeting the size, shares, years of existence and board seat conditions included in the % SBT coverage calculation</p> <p>Temperature Rating: 100% of PCs meeting the size, shares, years of existence and board seat condition included in the Temperature Rating assessment</p>
<p>Credit/private Debt, including infrastructure debt</p> <p>Go to section</p>		<p>Optional: no minimum coverage requirement – PE firms may cover as much of these activities as they wish²</p>	<p>Temperature Rating</p> <p>Recommended actions: SBTi recommends that PE firms require setting public GHG emissions reduction targets as a lending condition for companies receiving direct lending. This would contribute directly to a firm's progress towards its Temperature Rating target</p>

Asset Class	Target Boundary Requirement	Applicable Target Setting methods
<p>Secondaries → Go to section</p> <p>Fund of Funds → Go to section</p>	<p>Optional: no minimum coverage requirement – PE firms may cover as much of these activities as they wish</p>	<p>While current methods may offer limited applicability, PE firms are encouraged to use the Temperature Rating method or portfolio coverage method to set optional targets</p> <p>Recommended actions: PE firms should engage GPs to set optional GP engagement targets to be communicated in the public summary of actions (find more details in Table 10.1. Target Language and Action Summary Template). However, GP engagement targets cannot be formally validated by SBTi</p>

Notes:

1. SBTi recognizes that in certain ‘special situations’, the asset classes in the table might not directly apply. Nevertheless, where there is equity stake in the first stake, the methods should be applied to private debt as per the percentage shareholdings above.
2. Whilst credit/private debt is currently optional, for future iterations, a deep dive review of how the asset class could be required will be undertaken.

Source: Authors.

A PE firm shall categorize its investments by asset class to apply asset specific criteria. For example, if a PE firm in Private equity direct Investments has majority equity investments in several manufacturing PCs, real estate assets and electricity generation assets, the PE firm shall adopt the portfolio coverage approach to cover only the manufacturing PCs, the SDA to cover 67% of real estate assets and the SDA to cover 100% of electricity generation assets. If a PC is a conglomerate that’s involved in both manufacturing and real estate activities, it may be more suitable to cover the PC within the SBT portfolio coverage target, given the method is sector-agnostic.

When a PE firm has several types of investments in an individual PC that fall under a mix of required and optional categories, **the stricter treatment shall apply for all of the investments**, albeit without duplicative coverage of the same PC in multiple targets. For example, if a PE firm has 40% shares and a board seat in an LBO investment (required) and also provides credit/private debt (optional) to the same PC, the PE firm shall include the PC in the boundary of its SBT portfolio coverage target only.

6.1.1 Factors and considerations for current target setting requirements

This project aims to promote widespread adoption of current best practices presented in the Guidance. To enable this, the SBTi devised clear target setting requirements for the largest PE strategies in terms of market size, and considered PE firms' theory of change and PCs' maturity in different strategies to ensure practicality of application. PE firms' level of influence was an important consideration, as private equity investments are largely illiquid in the investment cycle. This is distinct from the [FI Guidance's](#) project audience of the holding more liquid investments and therefore with more levers to achieve portfolio SBTs beyond engagement, such as portfolio shifting or divestments.

Table 6.2 below shows that the SBTi requires PE firms to set targets on buyout, growth capital, and venture capital, the three largest strategies where there is a clear theory of change and where PCs are sufficiently mature to establish approved SBTs (under the SBT portfolio coverage method) or public GHG emissions reduction targets (under the Temperature Rating method). For optional asset classes of credit/private debt, fund of funds, and secondaries, the theory of change is less clear. Current methods accepted by SBTi also offer limited applicability for these asset classes.

Under this version of the Guidance, the SBTi expects PE firms that primarily hold PE direct investments to cover most of their total investment activities by portfolio SBTs. Multi-strategy firms are expected to set SBTs on their PE direct investments, and increase the percentage of their total investment and lending activities covered by portfolio SBTs over time if additional asset-class methods become available. This ensures that PE firms can collectively cover the most material strategy that they are most well-positioned to act on – direct investments – and accelerate overall ESG growth in other strategies by improving private companies' GHG emissions calculations and target setting practices.

Over time, the SBTi may revise Table 6.1 as more methods become available and as the latest climate science and best practices evolve. PE firms may set targets to cover additional asset classes through the resubmission process.

Table 6.2. Factors determining current target setting requirements

Strategy	Current market size	PE's influence/ theory of change	PC's maturity	Current target setting requirement
Buyout	◆◆◆◆ \$2,276 billion	◆◆◆◆ Clear opportunity to engage PCs given % share	◆◆◆◆ Usually mature ²⁴	Required for PCs with more than 25% of share and board seat
Growth	◆◆ \$779 billion	◆◆◆◆	◆◆◆ Growth	

²⁴ Usually mature for Large Cap and upper Mid-Cap; relatively immature - similar to Growth – for mid/lower Mid-Cap and Small Cap, with obvious exceptions such as distressed buyout.

		Clear opportunity to engage PCs given % share		
Venture capital	◆◆◆ \$1,242 billion	◆◆◆◆ Significant influence over early-stage PCs	◆◆ Startups	Required for later stage startups with more than 15% of share and board seat
Private debt	◆◆ \$883 billion	◆ Most opportunity at direct lending	◆◆◆◆ All stages	Private debt with equity investments that meet the thresholds for buyout/growth are required Other private debt strategies are optional
Fund of funds	◆ \$381 billion (2017 figure from Preqin)	◆ Far removed from PCs	◆◆◆◆ All stages	Optional
Secondaries	◆ \$87 billion raised in 2020	◆ Most opportunity at GP-led secondaries	◆◆◆◆ All stages	Optional

Source: [McKinsey& Company, 2021](#); [Preqin, 2017](#)

6.2 Real Estate and Electricity Generation Private Equity Investments

This section describes definitions of private equity investments in real estate and electricity generation assets, and the relevant criteria and steps to set targets on these assets using the Sectoral Decarbonization Approach (SDA). The SDA is a method for setting physical intensity targets that uses convergence of emissions intensity. An intensity target is defined by a reduction in emissions relative to a specific business metric, such as production output of the company (e.g., metric tonne CO₂e per tonne product produced). The SDA assumes global convergence of key sectors' emissions intensity by 2050.

The SBTi has identified the SDA as the **required method** for these two asset classes and devised relevant target boundary requirements specific to the method. This is to ensure PE firms' targets covering these two high-emitting asset classes are consistent, comparable, and based on the same sectoral physical intensity metrics. SDA targets are considered acceptable when **PE-C18.1 – Sectoral Decarbonization Approach Targets** in Section 4.6 are met.

For more information on the SDA method, please see Section 5.4.1 in the [FI Guidance](#). Where relevant, this section references method application instructions available in the [FI Guidance](#).

6.2.1 Real estate and electricity generation private equity investments

The two main forms of private investments in the institutional real estate market are private equity and private debt. This section discusses real estate private equity – real estate private debt is discussed in Section 6.4.

Real estate PE firms, or PE firms investing in real estate as an asset class, deploy capital to acquire and develop (usually commercial) properties to operate and improve them, and then sell them to receive a return on their investment. As private equity real estate requires a high amount of capital, it is often only accessible to high-net-worth individuals or institutional investors, such as pension funds and asset managers. These funds are not traded publicly (Kagen, 2021).

Real estate equity is primarily majority-share PE firm ownership. However, sometimes PE firms co-invest in real estate with other PE firms to reduce risk. Therefore, minority share in real estate is also part of the PE firm market.

Corporate loan real estate offers the closest parallel between this Guidance and the [FI Guidance](#). The difference: the nature of the investment is lending, whereas in private equity the PE firm has direct equity in the real estate. The influence as an equity holder is typically greater over the management company that makes decisions over the assets' decarbonization, even where there is a minority share, than the influence a lender has over the same party.

6.2.2 Electricity generation private equity definition

This asset class refers to direct private equity investments in companies and projects that participate in the generation and sales of electricity. Given the scope of the IEA Energy Technology Perspectives scenario (2017) that underlies the SDA method, electricity transmission and distribution (T&D) companies and projects are not covered within this asset class.

Direct private equity investments in assets that generate and sell electricity are primarily majority owned investments. However, sometimes the PE firm owns a minority share in such assets through co-investment often as a means of reducing risk.

6.2.3 SDA for real estate private equity investments

PE firms investing in the equity of real estate assets, regardless of the equity share, are required to set targets on 67% of base year activity by square meter. PE firms are required to use the SDA method, which provides sector-specific pathways for the **energy use of residential and service buildings**. The embodied emissions of the buildings' materials are currently not included due to high data uncertainty. Therefore, this method is not applicable to construction or rehabilitation of properties. A [dedicated tool](#) is available for modelling SDA targets for commercial real estate buildings. Annex B in the [FI Guidance](#) provides more details on this method's application.

To ensure 67% coverage, PE firms should prioritize the inclusion of assets in regions where buildings' emissions data or buildings' energy-related data are available, or where data quality

is generally higher quality. However, this should not deter PE firms from including assets in regions where only proxy or average data are available.

To apply the SDA method, the PE firm shall firstly calculate its **financed emissions** for its real estate portfolio. The SBTi has identified the Global GHG Accounting and Reporting Standard for the Financial Industry (PCAF 2020), developed by the Partnership for Carbon Accounting Financials (PCAF), as a freely available approach to measure asset-level-financed emissions. PCAF has determined 'Outstanding loan or investment amount of properties/Property values at the time of investment' as the factor to attribute emissions to a FI's portfolio (see Annex B in [FI Guidance](#)). This attribution factor to calculate financed emissions provides flexibility for PE firms to adopt the SDA method, ensuring that the PE firm's equity share in a real estate asset is proportional to emissions attributed to the firm.

6.2.4 SDA for electricity generation private equity investments

PE firms investing in the equity of electricity assets, regardless of the equity share²⁵, are required to set targets on 100% of base year activity by kilowatt hour using the SDA method. SBTi has identified 100% as the coverage requirement for electricity generation assets, as a crucial step for transforming the electricity sector, critical to reach net-zero emissions by 2050. Electricity generation accounts for 36% of total energy related-emissions today, the largest source of energy-related emissions (IEA 2021). In IEA's recently released Net-Zero Emissions by 2050 Scenario (NZE), global electricity demand is projected to increase by 80% between 2020 and 2050, where global generation from renewable sources must triple by 2030 and grow eight times by 2050 (IEA 2021).

The asset class is also closely-linked with **PE-R10 – Phaseout of Thermal Coal Investments** and **PE-R11– Disclosure of Fossil Fuel Investments and Lending**, as using fossil fuels in facilities without carbon capture, utilization and storage (CCUS) in electricity generation must decline sharply to reach net-zero emissions. For instance, according to NZE, unabated coal-fired generation must decline by 70% by 2030 and large-scale oil-fired generation must be phased out in the 2030s (IEA 2021).

The SDA method covers electricity generation from sources such as oil, coal, natural gas, nuclear, biomass and waste, hydro, geothermal, wind, solar photovoltaics (PV) and concentrate solar power (CSP), ocean, and hydrogen (IEA 2017)²⁶. Similar to real estate assets, PE firms shall first calculate the financed emissions of its PE investments in electricity generation. PCAF has determined *Outstanding amount versus the total balance sheet (i.e., equity + debt)* as the factor to attribute private companies' emissions to a FI's portfolio (PCAF 2020). For electricity generation projects, the attribution factor is *the ratio between the institution's outstanding amount (numerator) and the total equity and debt of the financed*

²⁵ Per note 1 of Table 6.2, if a PE firm has both equity and debt investments in electricity generation assets, they shall include these assets in the SDA target, as the requirement to set targets on equity investments takes precedence.

²⁶ Treatment of investments leading to negative emissions from the power sector, such as bioenergy with carbon capture and storage (BECCS) and carbon capture and storage (CCS) are currently out of scope. This topic will be revisited once the GHG Protocol removal guidance is developed and as part of the SBTi's net-zero target discussion.

project (denominator). A [tool](#) is available for modelling SDA targets for power generation, with additional detail provided in Annex C of the [FI Guidance](#).

6.3 Private Equity Direct Investments, Including Buyout, Growth Capital and Venture Capital

6.3.1 Definition

For the purposes of this Guidance, this category is considered to include equity investment in both business-to-business (B2B) and business-to-company (B2C) type commercial businesses and infrastructure assets which are operated by a PE firm. Investments in real estate private equity are discussed separately in Section 6.2.

Private equity direct investments typically involve medium to long-term finance provided to businesses in return for an equity stake. This is more common in unlisted companies – however, situations arise where a listed entity is acquired to become private. Each fund will make multiple such investments with the businesses invested in referred to as PCs.

The relative percentage of equity owned will vary. Equity stakes are generally categorized into majority (>50% equity) or minority (<50% equity) positions. The larger the equity stake, the greater the influence that can be exerted on the business. In certain circumstances, this influence will be exerted through the GP receiving a board seat. Occasionally, some GPs will partner to acquire a stake in a business, or a GP will invite an LP to make a direct investment ('co-investment').

The equity positions are usually held for three to five years, albeit holds of up to ten years will occur. Longer terms may occur where the investment is in infrastructure assets. During that hold period, the GP will work with management to help them achieve significant growth, organically, and through the acquisition and merger of 'bolt-on' businesses. At exit, the GP will sell its stake in the business or asset either through a private sale or an initial public offering (IPO).

6.3.2 Relevant target setting boundary

As shown in Table 6.1, SBTi requires that the GP, or the PE firm, uses the **SBT portfolio coverage method or the Temperature Rating method** to set targets on PCs in its managed funds where the firm has a certain percentage of shares and board seat, depending on the specific investment strategy. This excludes investments in real estate and electricity generation assets for which the SDA method is required (see Section 6.2).

SBTi has devised nuanced share thresholds for buyout, growth capital, and venture capital, considering PE firm's influence within each strategy as well as the portfolio companies' maturity and ability to reduce their GHG emissions. SBTi requires firms that use SBT portfolio coverage to include 100% of PCs that meet the shares and board seat condition in the % SBT coverage calculation. Firms using the Temperature Rating approach must include 100% of PCs meeting the shares and board seat condition (as well as size and age condition for venture capital) in the Temperature Rating assessment and temperature score alignment target.

Buyout and growth capital, with $\geq 25\%$ of the fully diluted shares of the PC AND board seat(s) A PE firm fulfilling this criteria is considered to have sufficient influence over its PCs in buyout and growth strategies and shall leverage it to engage and encourage PCs to make low-carbon transitions through setting approved SBTs or public GHG emissions reduction targets.²⁷ In line with [SBTi finance's theory of change](#) that all actors across a value chain share influence over the direct emissions of each actor - and therefore share responsibility for reducing them - this threshold applies regardless of whether the PE firm is the lead investor.

Venture capital Startup companies in venture strategies where the firm has more than 15% of the fully diluted shares AND board seat(s) that fulfill the following conditions must be included in a PE firm's target boundary:

- More than 50 people AND
- More than €10 million annual turnover OR balance sheet AND
- Have been in existence for 5 years

The conditions above are adopted from the European Commission's definition of small companies (European Commission, 2016) and intend to capture later-stage startups that are better positioned to set SBTs or public GHG emissions reduction targets.

6.3.3 Applicable methods and recommendations on method selection

The SBT portfolio coverage and Temperature Rating methods are two accepted methods for setting targets on private equity direct investments. **Adoption of either method requires GPs to include a company's ability to mitigate its emissions as a key consideration for all future investment decisions. The main difference is whether SBTi approval of PC's targets are required (i.e. The SBT portfolio coverage does whereas the Temperature Rating method does not).** This section includes recommendations on method selection ([Section 6.3.4](#)) and a summary of these methods. Section 6.3.5 below provides practical recommendations on applying both methods considering a PE firm's investment cycle.

6.3.4 Recommendations on method selection

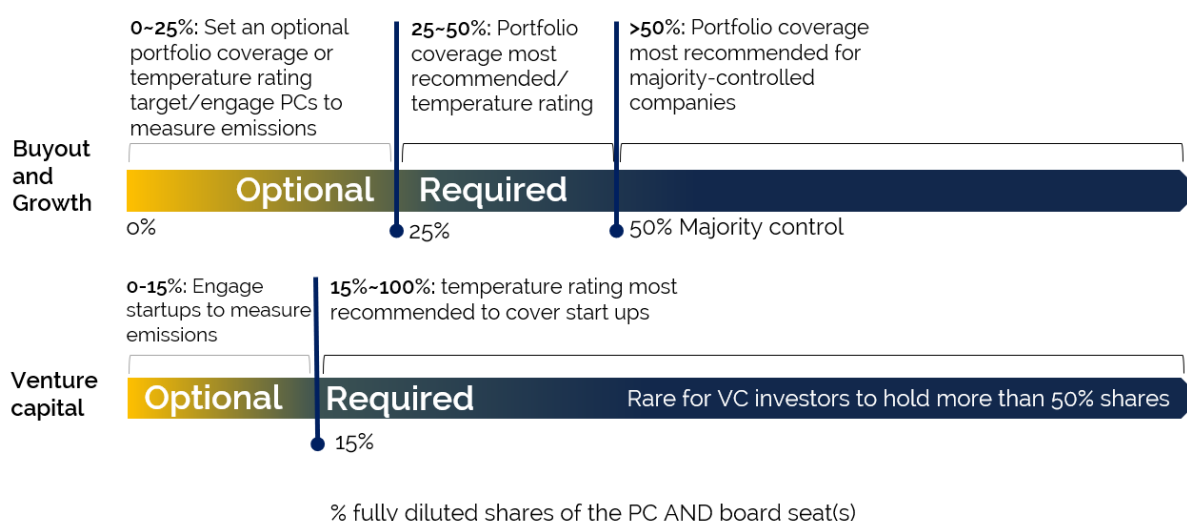
SBTi recommends that GPs prioritize using SBT portfolio coverage wherever possible, given it requires PCs' targets to be reviewed through SBTi's rigorous, best-practice validation process. Through their direct equity investments, PE firms are well positioned to influence and support their PCs to obtain approved SBTs.

²⁷ In a previous iteration of this Guidance, SBTi included two thresholds for buyout and growth capital. For buyout, the threshold was $\geq 30\%$ shares and one board seat given that minority investors in buyouts tend to be more passive and have limited influence over the PCs, as they may be investing alongside another leading PE fund driving the acquisition or in a syndicated stake in the PCs. For growth capital, the threshold was lower at $\geq 20\%$ shares and one board seat given that investments in growth capital are often convertible preferred equity investments that grant the investors more shareholder rights to drive the strategy and outcomes despite owning minority shares. Public consultation of the guidance showed that clear quantitative definitions for companies in buyout and growth strategies don't yet exist. To streamline and ensure consistency in target setting, SBTi merged these two thresholds into $\geq 25\%$ of the fully diluted shares AND board seat(s).

In practice, it might be challenging for GPs to engage every firm to set approved SBTs, especially for minority-owned PCs where the firm holds 25~50% share, bigger PE firms, less mature firms, and certain geographies where obtaining approved SBTs remains cumbersome. In these cases, SBTi suggests that the Temperature Rating method be used for minority-owned PCs and for startup companies in venture strategies where economic intensity targets that are more appropriate for fast-growing companies can be set.

While SBTi established thresholds for buyout, growth, and venture capital, GPs are encouraged to establish targets using one of the two methods for PCs that fall outside of the thresholds for the buyout and growth strategies and engage startup companies outside of the threshold to measure their emissions as an important starting point in their climate mitigation journey.

Figure 6.1. Method hierarchy based on percentage of shares a PE firm holds in PCs in buyout, growth, and venture strategies



Source: Authors.

The **SBT portfolio coverage approach** is an engagement-based approach where the GP commits to having a percentage of its portfolio with approved SBTs five years from the time the GP's target is submitted to SBTi for official validation, so that the firm is on a linear path to achieve 100% SBT coverage by 2040 at the latest. A PE firm would commit to a minimum short-term five-year coverage target and is further encouraged to set an optional long-term coverage target for the year that it expects to meet 100% SBT coverage. Reaching 100% by an earlier year, e.g., 2030, is highly recommended. PE firms' targets to align the portfolio coverage of their buyout, growth capital and venture capital with ambition of the Paris Agreement are considered acceptable when the **PE-C18.2 SBT portfolio coverage approach** criteria are met (see Section 4.6).

6.3.4.1 Metrics to define SBT coverage

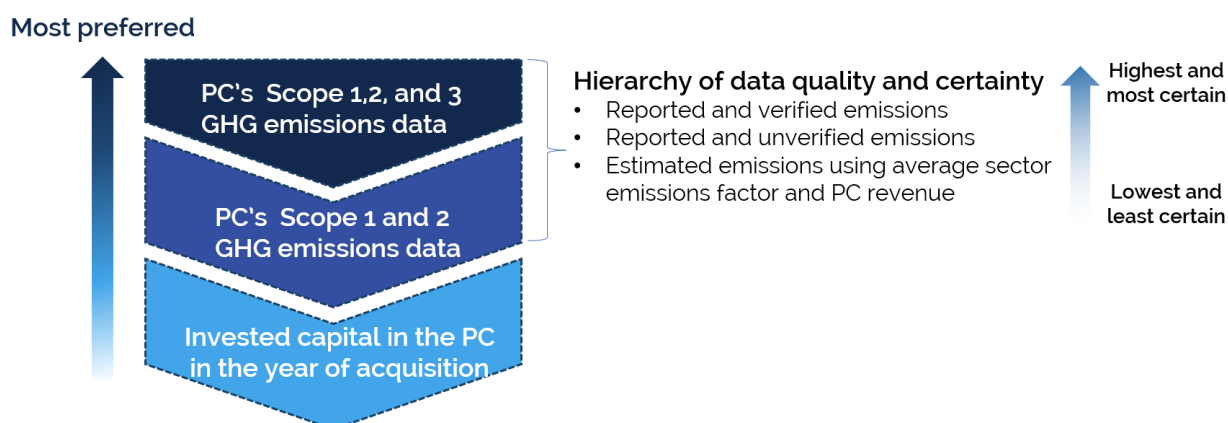
When modeling a SBT portfolio coverage target, it is important to decide on a metric to define “% SBT coverage”. The most recommended metric is the scope 1, 2, and 3 GHG emissions of PCs – scope 3 emissions should be included regardless of whether the PC’s Scope 3 are less than 40% for total scope 1, 2 and 3 GHG emissions. Using PCs’ emissions to define SBT coverage helps prioritize high-emitting companies.

Both estimated and reported GHG emissions data can be used. Partnership for Carbon Accounting Financials’ data scorecard is a useful resource to gather PCs’ emissions data (PCAF 2020). While verified and reported GHG emissions of PCs is preferred, unverified and reported emissions – as well as estimated emissions through multiplying average sector emissions factor and revenue – are also accepted (in order of priority). A hybrid of data sources may also be used to gather PCs’ emissions. If scope 3 emissions are not available, scope 1 and 2 emissions of PC can also be used to define SBT coverage.

While PCs’ scope 1-3 or scope 1-2 emissions are most recommended, PE firms might not have that information in the base year or might find it difficult to project emissions of future investments. For these reasons, SBTi accepts the use of invested capital as an alternative interim metric to define SBT coverage until scope 1, 2, and 3 emissions of all PCs are available. Using invested capital allows the PE firm to base their coverage targets on where their investments are distributed. Alongside invested capital, a firm’s co-investment should be included if the firm’s combined stakes in a PC are above the percentage shares and board seat threshold required for the relevant strategies.

In Chapter 5, SBTi recommends the PE firms also disclose the GHG emissions of the PCs covered by SBTs in their own ESG annual filings if they are using a financial metric for coverage. Over time, obtaining PCs’ scope 1, 2, and 3 emissions should become a standard practice for PE firms. Section 8.1 provides additional guidance on tracking and reporting progress over the selected metric.

Figure 6.2. Hierarchy of metrics to define SBT coverage



Source: Authors, adopted from PCAF’s data quality scorecard (PCAF 2020).

Temperature Rating. As shown in Table 6.1, SBTi recommends that the PE firm uses the SBT Temperature Rating method as an alternative for the required asset classes buyout, growth capital and venture capital, whilst it is the principal method recommended for the asset class credit/private debt. The SBTi recognizes that sustainability-linked loans presently offer a small proportion of the credit market – however, PE firms are encouraged to use the Temperature Rating method to track them. This offers an opportunity in the credit space to incentivize companies to meet their targets and help improve loan rates, which in turn benefits the lender from new market growth.

The Temperature Rating Approach calculates individual portfolio companies' scope 1, 2, and 3 temperature scores based on their public emissions reduction targets and aggregates them up to generate a firm's current Temperature Rating score. The Temperature Rating Approach's goal is for PE firms to align and set the PC/borrower companies' own scope 1 and 2 temperature score with a minimum well-below 2 degrees Celsius scenario, and in addition align their PCs/borrower companies' to a minimum 2 degrees Celsius scenario for the PCs own scope 1, 2 and 3 emissions by 2040, as shown in Figure 6.3.

SBTi validation is not required for portfolio companies' emissions reduction targets. The method uses an open-source framework to enable the translation of any existing GHG emissions reductions targets into temperature scores at a PC/borrower company level:

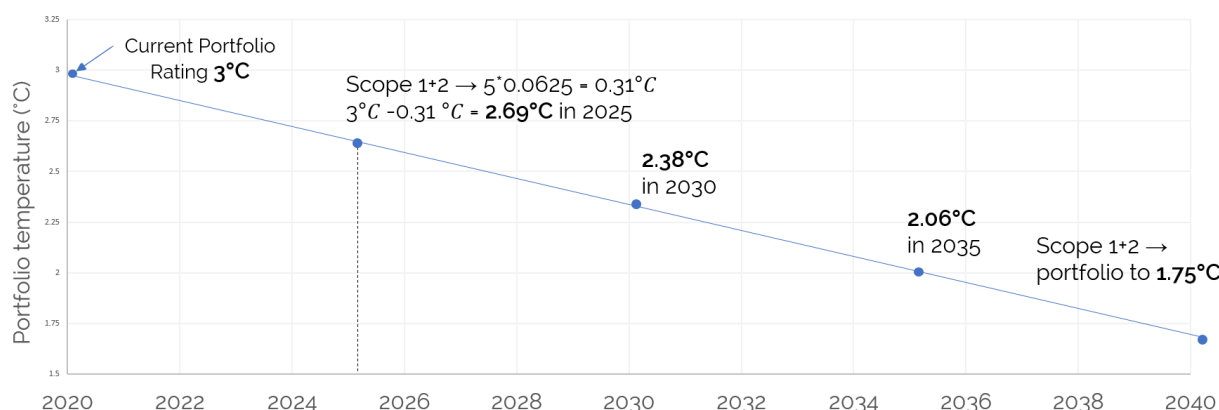
- If the PC/borrower company has an existing GHG reduction target, the method can be used to generate temperature scores to translate target ambition to a common intuitive metric, temperature.
- If the PC/borrower company does not have an existing GHG reduction target, a generic temperature score of 3.2°C is applied.

Figure 6.3. Linear decrease approach of the Temperature Rating method

$$\text{Portfolio annual temperature reduction} = \frac{\text{Baseline TR} - 1.75^{\circ}\text{C}}{2040 - \text{Baseline year}}$$

Scope 1+2 → 1.75°C by 2040
Scope 1+2+3 → 2°C by 2040

Example: 3°C to 1.75°C from 2020 BY = $\frac{3^{\circ}\text{C} - 1.75^{\circ}\text{C}}{2040 - 2020} = 0.0625^{\circ}\text{C}/\text{year}$



Source: The SBTi

Initially, the Temperature Rating Approach may require more time to collect the GHG data and targets from all PCs/borrower companies defined in the asset class boundary. An example of the online [tool](#) can be found [here](#).

The Temperature Rating Approach enables PCs/borrower companies' own public GHG emissions reductions targets to be scored. This could allow the PCs/borrower companies to get recognized faster for GHG reduction measures that impact the real economy, due to less of a resource strain on each PC/borrower company formally setting SBTs.

Unlike the portfolio coverage approach, the Temperature Rating Approach requires the PC/borrower company to have emissions data. Where it is not readily available for the borrower company, alternative robust emissions data should be obtained, such as data offered by CDP or other third-party sources aligning emissions estimations to the GHG Protocol, i.e. category 15 'investment-specific method' or 'average-data method'.

If the PC borrower/company does not have an existing GHG target, they will be given a default temperature score of 3.2°C once all data inputs are satisfied within the tool, i.e., emissions data.

The individual scores for scope 1, 2 and scope 3 (if scope 3 emissions are greater than 40% of total scope 1, 2 and 3) are aggregated to produce an overall scope 1 + 2 + 3 score. This is completed with GHG inventory data and the output is weighted to produce scope 1 + 2 + 3 scores. The weighting also considers the coverage of emissions data: the lower the coverage, the higher the likely temperature score will be, compounding the need, for each PC/borrower company to undertake a robust GHG inventory.

Like the portfolio coverage approach, the PE firm should set both a short-term portfolio alignment target five years from the date targets are submitted to the SBTi for official validation. A long-term portfolio alignment target for the year the PE firm meets the required end Temperature Ratings should also be considered. The SBTi strongly encourages PE firms to up ambition to set long-term Temperature Rating target(s) prior to 2040.

6.3.5 Recommendations on method application considering the PE investment cycle

PE in the investment cycle is largely illiquid as PE firms are somewhat bound to their investments with PCs for a hold of typically three to five years. Therefore, to ensure the portfolio coverage and Temperature Rating methods can be applied practically in the PE landscape, the following **Additional Recommendations** have been provided.

Existing Positions. Existing positions at the time of a PE firm's target submission must be included in the target boundary. PE firms should establish firm-specific factors to determine which PCs should be prioritized for engagement efforts. Being in a mature and in the divesting phase alone should not preclude a firm from engaging a PC.

Projecting Future SBT Coverage. Alongside modeling size and cycles of future investments in five years – and up until 2040 – to project future SBT coverage, PE firms must also make

assumptions about the success rate and time required for each PC to obtain SBTi approval. These assumptions depend on firm-specific factors. While one firm may assume that all PCs need the same amount of time to obtain SBTi approvals (e.g., 24 months), others might wish to determine the time period specific to each individual PC. A firm may model different scenarios with low, medium, and high success rates of obtaining SBTi approval and submit targets based on the level of ambition it finds appropriate and wishes to pursue. Furthermore, the PE firm should consider the projected change in the selected metric to define SBT coverage over time, e.g., if PCs GHG emissions are to reduce in absolute terms, or if using a financial selected metric, if invested capital is set to increase in line with the PE firms' own growth trajectory (see Section 6.3 for more information).

Acquisition of companies with approved SBTs. If PE firms acquire PCs with existing approved SBTs, these PCs shall be included in the percentage SBT calculation. Such acquisitions will directly contribute toward the achievement of portfolio coverage approach. This encourages PE firms to acquire PCs with approved SBTs that will help their progress toward their portfolio coverage. With the ongoing strong momentum of companies joining SBTi and investors engaging their investees and borrowers to set SBTs, in theory PE firms will have a larger universe of companies with approved SBTs to invest in.

6.3.6 Example: Setting a SBT portfolio coverage target

Several key factors should be considered when applying the SBT portfolio coverage method to a PE firm. As PE firms hold PCs for typically five years, it's important to clarify the implications of increasing SBT coverage on an ever-shifting portfolio. At the time a firm sets an SBT, it likely has existing positions in PCs that it plans to divest from soon. As PE firms continue to raise capital and make new investments, their SBT coverage may fluctuate depending on the type of companies acquired and whether they intentionally invest in companies that already have approved SBTs in future.

This section presents an example of applying the SBT portfolio coverage method to an illustrative PE firm, Transition Capital that has three funds in its portfolio - Fund A, B and C in 2020:

- Fund A consists of existing positions. It has been fully invested and the firm is starting to exit from some of the PCs. The firm used 'buy and build' strategies and merged existing PCs with new 'bolt-ons' to achieve significant growth. Some parts of the existing PCs are sold as separate entities over the years. All shares in Fund A are majority (>50%) shares
- Fund B is raised in 2020, and the first investments are made starting from 2020. The firm envisions a similar strategy for Fund B as Fund A. All shares in Fund B are majority shares
- Fund C is a new venture capital fund, consisting of startups with fewer than 30 employees, in existence for fewer than 3 years. Very few startups have started to measure emissions. However, they are expected to grow as they expand their business

and through the firm's 'buy and build' strategies. All shares in Fund C are minority shares of 15~20%

In 2020, Transition Capital would like to submit its SBTs this year. Following the **Target Timeframe** criterion, the latest target year allowed for the required short-term target would be **2025**. A quick review of the three funds reveals that no existing PCs have set SBTs. Therefore, Transition Capital is starting at 0% SBT company coverage in 2020, and would have to achieve 25% SBT coverage in 2025 to be on a linear trajectory to 100% SBT coverage in 2040:

- Minimum annual linear increase of SBT coverage: $(100\%-0\%)/(2040-2020) = 5\%$
- Minimum target year SBT coverage: $5\% \times (2025-2020) = 25\%$

Since the startups in Fund C fall outside of SBTi's minimum size and age threshold (as described in Table 6.1), Transition Capital decided to exclude Fund C from its target coverage, but planned to engage all start ups to establish their GHG emissions as an interim step.

Transition Capital has not yet calculated all of its existing PCs' scope 1, 2, and 3 emissions. Therefore, it selected **invested capital as the metric to define SBT coverage** and expects to update the invested capital in both the denominator and numerator of % SBT calculation as they fluctuate with bolt-ons and sales of PCs. However, following SBTi's recommendation in Section 6.3.6 of this Guidance, Transition Capital plans to switch to estimated scope 1, 2, and 3 emissions of PCs to define % SBT coverage in two years, and reported emissions of PCs in five years.

Transition Capital proceeds to devise different engagement strategies for its three funds. Transition Capital determined a few factors to prioritize which PCs should be the focus of engagement and subsequently identified a few PCs in Fund A that it plans to engage for setting SBTs. For Fund B, the Firm has strong levers to influence PCs to set SBTs as the investments have just been made. For all future new investments the firm projects to make up to 2025, it plans to include emissions measurement and SBT setting as a requirement in these PCs' 100-day plan.

Based on each PC's overall maturity and current progress on emissions measurement, Transition Capital projected the year in which the PCs might obtain SBTi's approval. The Firm considered that each PC would take on average 12 months to have a validated SBT to reflect the inherent nature of Transition Capital in providing transformational change post investment with setting SBTs high on the priority agenda. Figure 5.4 below shows an example of Transition Capital's modelling of Fund B.

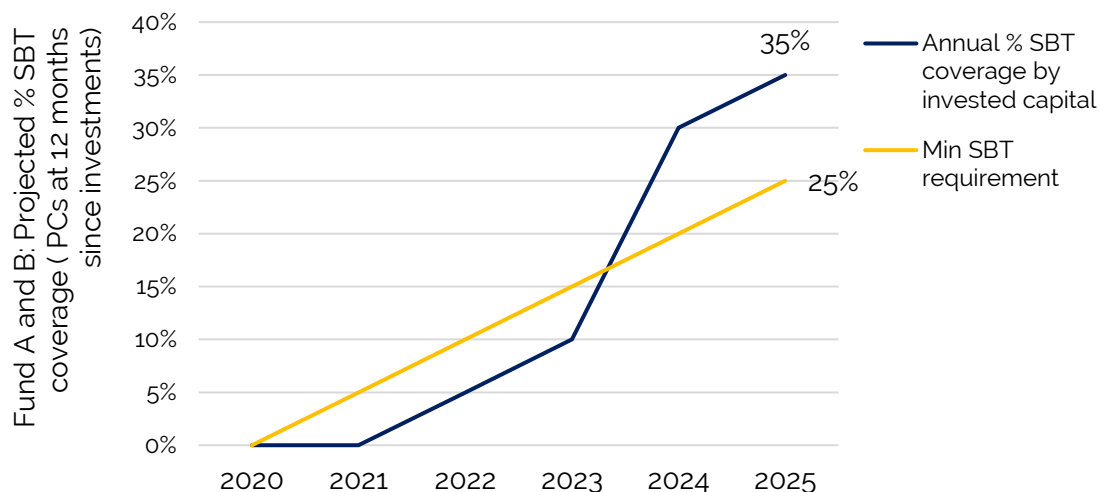
Figure 5.4. Modeling future SBT coverage of Transition Capital's Fund B (considering PCs at 12 months since investment)

Fund B - Raised in 2020. First investments from 2020		2020	2021	2022	2023	2024	2025	
PC	Metric - Invested Capital							
1	1000				1000	2000	2000	Build and buy
2	1000		1000	1000	1000	500	500 sold	
3	1000	1000	1000					Occasional quick buy and sell-on
4	1000		1000	1000	1000	1000	1000	
5	1000		1000	1000	1500	1500		Build and buy
6	1000		1000	1000	1000	1000		
7	1000		1000	1000	500	500	500	50% sold
8	1000			1000	1000	1000	1000	
9	1000		1000	1000	1000	500	500	50% sold
10	1000		1000	1000	1000			
Numerator: Potential PCs with SBTi approval		0	0	1000	1500	3500	2000	
Denominator: PCs acquired for more than 12 months		0	1000	7000	8000	8000	5000	
Fund level %SBT portfolio coverage (PCs acquired for more than 12 months)		0%	0%	14%	19%	44%	40%	
Fund level %SBT portfolio coverage (All PCs)		0%	0%	13%	17%	44%	40%	
Min. requirement of % coverage		0	5%	10%	15%	20%	25%	

Source: Authors

Given the metric selected to calculate SBT coverage (i.e., invested capital), the engagement strategy, the assumption of the time period it takes each PC to obtain SBT approval, Transition Capital projects that it will reach 35% SBT coverage in 2025 for Fund A and Fund B, which are required to be covered by a PE firm's targets (see Table 6.1).

Figure 6.5. Transition Capital's annual percentage of SBT coverage by invested capital, compared to SBTi's minimum coverage requirement.



Source: Authors

After conducting the exercise above, Transition Capital is ready to submit a target that commits itself to achieve 35% SBT coverage by invested capital by 2025, covering Fund A and B for the time being. Building on this exercise, it also plans to further project the target up to 2030 and 2040.

6.4 Credit/private Debt

6.4.1 Definition

A debt fund comprises private equity backed capital that loans money to buyers or owners of companies or assets, as opposed to acquiring equity. For the purpose of this Guidance, lenders are specialist private credit funds but can be from any non-bank private FIs (Preqin 2021).

Private debt is not traded or issued in an open market. Lending private debt can be to both listed or unlisted companies, as well as to real assets such as infrastructure and real estate.

There are a multitude of private debt sub-strategies each with differing and relative risk/return characteristics as set out in ascending order in Figure 6.6 below.

Figure 6.6. Private debt sub-strategies²⁸.



Source: Authors.

Across debt sub-strategies, PE firms provide a significantly higher volume of lending deals to companies or assets than the number of deals made in PE PCs. PE firms therefore offer debt products pre-packaged to attract off the shelf interest. Of these credit products, PE firms also provide syndicated debt from a group of lenders. Therefore, the SBT deployment should consider where the PE firm has most influence over the borrower company as a starting point, e.g., sole bilateral direct lending could offer more influence than syndicated debt.

²⁸ The SBTi recognizes that mezzanine and special situations often have significant equity, thus 'required' asset classes and methods of Table 6.6 apply in the first instance. For instance, if a PE firm's mezzanine debt has for example 30% equity in a company, then the portfolio coverage approach would apply and the debt portion would not be required to be covered by the credit/private debt asset class temperature rating method, to avoid duplication of target coverage of the same company.

6.4.2 Future work, recommended method, and relevant criteria

SBTi appreciates the complexity of credit/private debt and the ability of the lenders to influence borrowers consistently. It is the SBTi's intention that private debt will be further explored in the next phase of this Guidance, to define where credit/private debt could be a 'required' asset class. For the time being SBTi encourages PE firms to use the **SBT Temperature Rating Approach** to set targets on the optional asset class of credit/private debt. Through the lending that PE firms offer, there are opportunities to influence borrowers (companies receiving loans from PE firms) in aligning with a 1.5 degrees Celsius world.

The SBTi recommends that PE firms in the asset class credit/private debt define sub-strategies for the boundary and set a percentage coverage of borrower companies from the first year of adoption. PE firms are recommended to adopt a transparency principle to ensure the yearly disclosure of companies that have and have not set Temperature Rating targets – as well as those that have and have not met their targets to reduce their temperature scores. The SBTi recognizes that in certain years, the borrower company might not meet the intended scores and in other years they might improve the scores significantly as the investment in GHG emissions reduction is not linear.

Direct lending. PE firms that provide direct lending are strongly recommended to leverage their position and engage the company's management to influence the borrower company to reduce their GHG emissions, as a lending condition, on a trajectory toward a 1.5 degrees Celsius Temperature Rating. Whilst it is recommended the borrower company sets approved SBTs, it is not required by the Temperature Rating method-specific criteria.

Other private debt sub-strategies. While direct lending has the clearest opportunity for influence through engagement with the borrower company, the SBTi recommends that PE firms align other sub-strategies of credit/private debt where there are opportunities to engage and set Temperature Rating targets – especially where the PE firm is lending to firms with strong sustainability credentials, existing GHG inventories and targets, or where the PE firm can influence the borrower company to achieve these.

Criteria. PE firms' targets to align the Temperature Rating of their credit/private debt with ambition of the Paris Agreement are considered acceptable when the **PE-C18.3 – Portfolio Temperature Rating Targets** criteria are met.

To ensure that the most representative temperature scores are produced at the time of setting targets, for loans where the PE firm has the most influence to encourage a reduction of the borrowers' GHG emissions, the following **Additional Recommendations** to the Temperature Rating approach have been provided.

Existing Loans. PE firms should focus on existing direct lending loans where there is a strong engagement in place with the borrower company. While all direct lending is within the recommended boundary, PE firms may decide that existing loans where there is less potential influence, are not the focus of the engagement.

Engagement plan. The key to implementing and tracking target progress will be the PE firms' engagement with the borrowing companies. Using the Temperature Rating method, PE firms are encouraged to set out engagement plans with borrower companies as a condition of all new direct lending loans, and to align with the requirements of the Temperature Rating method, i.e., the engagement plan should require the borrower company to measure its GHG emissions as well as disclose the GHG reduction targets and actions being taken.

6.4.3 Example: setting a SBT Temperature Rating target considering influence

Transition Capital develops a new direct lending loan. Borrower company 'Borrower A' approaches Transition Capital for the new direct lending loan which includes the requirement to align with Transition Capital's SBT requirement via the Temperature Rating method. Transition Capital's loan also requires Borrower A to measure its annual GHG emissions within a year of agreeing to the loan deal and recommends annually reporting their annual GHG emissions to Transition Capital, alongside actions being taken to reduce them.

Borrower A agrees to the deal and Transition Capital supports Borrower A in obtaining its GHG emissions inventory and GHG emissions reduction action plan in the first year prior to the loan.

Three months prior, Transition Capital adopted its own SBT for the first time, on its existing direct lending with the intention to roll the SBT out for all new future direct lending loans. Transition Capital obtained the GHG data available for borrower companies that had their own GHG emissions reductions targets, to use for the Temperature Rating scoring.

Using the Temperature Rating tool and realizing many borrowers did not have GHG emissions reductions targets or emissions data (80%), Transition Capital reached out to a third party GHG data provider to obtain representative emissions data. Once data was received, Transition Capital ran the online tool and used the weighted average temperature score method to generate a temperature score for Scope 1 + 2:

$$\frac{(90,000\text{tCO}_2\text{e} * 1.8^\circ\text{C borrowers with targets}) + (300,000\text{tCO}_2\text{e} * 3.2^\circ\text{C borrowers without targets})}{90,000 + 300,000}$$

$$= 2.88^\circ\text{C}$$

The process was repeated for Scope 1 + 2 + 3:

$$\frac{(450,000\text{tCO}_2\text{e} * 1.8^\circ\text{C borrowers with targets}) + (2,100,000\text{tCO}_2\text{e} * 3.2^\circ\text{C borrowers without targets})}{450,000 + 2,100,000}$$

$$= 2.95^\circ\text{C}$$

The target covers scope 1 + 2 portfolio temperature score of 2.88°C in 2020 and so needs to decrease its portfolio (borrower company) temperature by at least 0.069°C per year ([2.88°C

– **1.5°C**/ [2040 – 2020] = 0.069°C) and reach at least 2.54°C portfolio temperature score by 2025 for a **1.5 degrees Celsius** alignment.

The scope 1 + 2 + 3 portfolio temperature score of 2.95°C in 2020 needs to decrease its portfolio (borrower company) temperature by at least 0.0475°C per year ($[(2.95^{\circ}\text{C} - 2^{\circ}\text{C}) / [2040 - 2020]] = 0.0475^{\circ}\text{C}$) and reach at least 2.71°C portfolio temperature score by 2025 for a **2 degrees Celsius** alignment.

A year later, Borrower A has calculated emissions data, a GHG emissions reduction target and GHG emissions reduction actions, sharing them with Transition Capital. Annually, Transition Capital uses the Temperature Rating score for all new and existing loans and adopts borrower company data to lower their scores and improve overall asset class performance. Transition Capital annually discloses the actions borrower companies are taking to reduce carbon to SBTi. Moreover, Transition Capital regularly runs the online tool to track progress toward the target temperature as more borrower companies measure and set GHG emissions reductions targets throughout the year, as an early indicator of progress, or where more engagement is required where possible.

6.5 Secondaries and Funds of Funds

6.5.1 Definition

6.5.1.1 Secondaries

A typical secondary investment involves the purchase of an existing LP interest in a PE fund. It can also be the purchase of a directly held ownership interest in a private company, which is known as a direct secondary. These transactions provide some liquidity to LPs that often include FIs such as banks, pension funds, insurance companies, corporations, government bodies, and family offices.

Secondary investors are at least one step removed from the underlying investee companies. Since secondary investors are separate from the GP, direct engagement with PCs is often restricted. It is rare for secondary investors to manage investments directly, or for employees of a secondary investor to sit on the boards of portfolio companies. Secondary investors also have limited influence over the timing of exit processes given that they typically have come into the fund or portfolio investments at a later date.

However, secondary investors have an investment in the underlying assets of a manager, so there is the potential for greater influence over manager strategies, especially when they are making ‘direct secondary’ investments. Nevertheless, even in the case of a typical ‘direct secondary’, the secondary investor only acts as an LP in the fund. The secondary investor would also not usually appoint a different GP to manage the new vehicle, as the typical investment case is to acquire or invest in a pool of assets (or a single asset) and to back the incumbent GP to continue to manage those assets

6.5.1.2 Fund of funds

A fund of funds is a pooled investment fund that invests in other types of funds. It is often created to provide investors more access to certain fund types and the support necessary to manage investments in PE, debt, secondaries, etc.

Fund of funds investors are at least one step removed from the underlying investee companies, and debt. Direct engagement with PCs is often restricted because of this fund framework.

When fund of funds invest specifically in PE portfolios, investors do have an investment in the underlying assets of a manager, so there is greater influence over manager strategies.

6.5.2 Recommended Actions

As secondaries and fund of funds are optional asset classes as determined by this Guidance, PE firms may decide what percentage of these asset classes they wish to cover, if at all. SBTi recommends adopting any of the three methods if the PE firm has the relevant data to be able to set SBTs.

6.5.2.1 Fund of funds

The Temperature Rating approach offers the most flexibility as the funds of funds, and more so secondaries, are at arm's length from influencing PCs. The Temperature Rating approach does not require the PC to set their own SBT, rather to work toward reducing their temperature score within a five-year timeframe. Furthermore, the online tool for Temperature Rating can be used as an 'assessment tool' to monitor which PCs have robust GHG targets and are reducing their emissions.

6.5.2.2 Secondaries

Secondaries firms may also optionally set internal GP engagement targets to promote climate initiatives and SBTs in certain circumstances. The SBTi recommends that secondaries firms strive to achieve a linear trajectory to 100% by 2035, when the majority of SBTi GPs have theoretically set SBTs for a 2040 timeline, in line with SBT portfolio coverage method timeline. However, such targets are for internal aspirational purposes and cannot be formally validated by the SBTi. Secondaries firms are further recommended to adopt the principles below:

Principles of a GP Engagement Internal Target for Secondaries

Secondaries firms are recommended to set a target percentage of GPs they engage with to pursue climate initiatives and/or set SBTs themselves. They are recommended to choose their own unit of measure to highlight the form engagement takes for these calculations. Secondaries firm can engage GPs with the SBTi in many ways and they should clearly attribute success and lessons learned of the engagement in GPs adopting a SBT:

1. Set a target percentage of GPs they engage with to pursue climate initiatives and/or set SBTs themselves.

2. Ensure their own carbon screening is for all new investments. For example,²⁹ by:
 - Screening for higher carbon aware GPs in an investment opportunity
 - Screening for higher carbon risk assets in a portfolio opportunity
 - Screening for higher carbon opportunity (transition opportunities) at the asset level within a portfolio opportunity (where granularity is possible)
 - Raising relevant climate related questions at due diligence (at both the GP and asset level, where possible)

3. Engage GPs with the SBTi agenda, likely via existing ESG avenues. Examples include:
 - Promoting the secondaries firms' own ESG policy and approach, including on climate
 - Learning about GP's existing ESG policies and approaches through research and engagement discussions
 - Supporting GPs to develop their own ESG policies (where one does not exist) or enhance existing policies
 - Promoting or requiring SBTs within side letters
 - Sharing information with underlying GPs on ESG and/or specific ESG factors or issues (e.g., climate change, climate risk, net-zero, SBTs)
 - Delivering ESG workshops for GPs, including on climate-related topics
 - Promoting working groups such as SBTi, CDP and the UN PRI
 - Making connections within the investors own network of ESG experts (including on climate)
 - Undertaking joint visits to "assets (where appropriate)" and providing observations from an ESG perspective (including on climate)
 - Promoting net-zero and SBTs through bespoke engagements with GPs post deal (this could involve the SBTi)
 - Monitoring key changes to ESG practices of underlying GPs including on climate (e.g., net-zero commitments)

4. Continually record and consolidate the success of the engagement via the established engagement metrics, e.g., number of GPs who have set SBTs due to secondaries led climate workshops and track the success of the influence against the target set.

When there is more widespread uptake of PCs setting SBTs in future, the SBT portfolio coverage approach could in theory be adopted by secondaries firms to recognize % SBT coverage of their portfolios. This will be explored in future iterations of this Guidance.

²⁹ The bullet points are recommendations, rather than an exhaustive list of actions to take.

7. How to Communicate SBTs

When it comes to reducing PE firms' GHG emissions, transparency is important to stakeholders – which is why the SBTi provides specific guidance on how PE firms should communicate their SBTs and strategies to achieve them. PE firms should only make claims about emission reductions attributed to these strategies or related financial products if they have credible evidence to support these claims. The detailed target language template is provided in Table 7.1 and additional guidance on formulating target language is included in the financial sector [target submission form](#). It must be followed by PE firms when setting targets.

At the time of target submission, PE firms shall submit a brief summary of the strategy and actions the firm will implement to reach their SBTs and why they selected these actions (**PE-C20 – Implementation Reporting**). This summary shall be provided by the PE firms with their target submission and will be published alongside the science-based targets, on the SBTi website upon target approval.

Table 7.1. Target Language and Action Summary Template for PE firms.

Scope 1 and 2 targets		
Absolute target: [PE firm name] commits to reduce absolute scope 1 and 2 GHG emissions [XX]% by [target year] from a [base year] base year.		
Intensity target: [PE firm name] commits to reduce scope 1 and 2 GHG emissions [XX]% per [unit] by [target year] from a [base year] base year.		
Scope 3 Portfolio Targets – Headline Target		
[PE firm name] commits to achieve SBTs in [asset classes] by [target year] * from a [base year]. [PE firm name]'s portfolio targets cover [XX]% of its total investment and lending activities by [unit] as of [date].		
*If the asset class-specific targets have multiple target years, use the target year farthest into the future		
Scope 3 Portfolio Targets – Asset Class Target		
Asset Class	Method	Target Language Template
Private equity direct investments	SBT Portfolio Coverage	<p>[PE firm name] commits that XX% of its PE investments by [GHG emissions or invested capital]* will have set science-based targets by [short-term target year] (optionally if long-term targets are set: and 100% by [mid- or long- term target year]).</p> <p>*If the unit used to define SBT coverage is not GHG emissions, it is recommended that PE firms also describe coverage in emissions terms using modeled emissions data.</p>
Real estate private equity investments	Sector Decarbonization Approach (SDA)	[PE firm name] commits to reduce its real estate PE investment GHG emissions XX% per square meter by [target year] from a [base year] base year.
Private debt Fund of Funds	Temperature Rating	[PE firm name] commits to align its scope 1 + 2 portfolio temperature score within the [asset class or sector] from XX°C in [base year] to XX°C by [target year].

[PE firm name] commits to align its scope 1 + 2 + 3 portfolio temperature score within the [asset class or sector] from XX°C in [base year] to XX°C by [target year].

Action Plan to Achieve Portfolio Targets

The PE firm will implement the following strategy and actions to achieve its scope 3 portfolio targets:

Instructions:

- Please begin each bullet point with "PE firm will.." and include no more than five bullet points
- Please only describe your planned actions to achieve your scope 3, category 15 targets. Please do not describe actions to achieve scope 1 and 2 or scope 3, categories 1-14's targets.
- To demonstrate firm-level alignment with the Paris Agreement beyond asset classes covered by targets, please also describe your current and planned actions for uncovered optional asset classes, as well as your current and planned policies and disclosure around fossil fuel investments (i.e. coal, oil and gas). For fossil fuel disclosure and phaseout plans, PE firms are encouraged to align with **PE-R10 – Phaseout of Thermal Coal Investments** and **PE-R11 – Disclosure of Fossil Fuel Investments and Lending**.
- If you wish to set an optional GP engagement target on secondaries investments, please describe the target here as in [PE firm name] commits that its GPs covering XX% of investees by [unit] will have set science-based targets by [target year].

Source: Authors 2021

Given that current methods do not cover all asset classes relevant to the PE sector and the target boundary requirement remains flexible on certain asset classes, PE firms are required to disclose the coverage of their total investment and lending activities by SBTs in the target language (**PE-C18 – Disclosure of Target(s) Portfolio Coverage**), using a metric that is representative of the magnitude of their main business activities. This disclosure requirement is intended to enhance the transparency and comparability of portfolio targets.

7.1 Example: Formulating a Multi-Strategy Firm's Target Language

Transition Capital is a multi-strategy PE firm, with PE direct investments, private debt, secondaries, and fund of funds. Following this Guidance, it developed targets on PE direct investments and private debt. It proceeds to develop target language for both its SBT portfolio engagement target for PE and Temperature Rating target for private debt direct lending. For secondaries and fund of funds, Transition Capital plans to follow SBTi's recommended actions and develop internal aspirational targets to engage its GPs.

Following the target language template, Transition Capital produces the following target language for its scope 1, 2, and 3 (category 15) targets:

- Transition Capital commits to reduce absolute scope 1 and 2 GHG emissions 70% by 2030 from a 2020 base year

- Transition Capital commits to achieve SBTs in PE direct investments and private debt asset classes by 2025 from a 2020 base year. Transition Capital's portfolio targets cover 80% of its total investment and lending activities by assets under management. Within this target:
 - Transition Capital commits 35% of its PE investments by invested capital will have set science-based targets by 2025.
 - Transition Capital commits to align its scope 1 and 2 portfolio temperature score within its direct lending portfolio from 2.88°C in 2020 to 2.54°C by 2025
 - Transition Capital also commits to align its scope 1, 2 and 3 portfolio temperature score within its direct lending from 2.95°C in 2020 to 2.71°C by 2025

For a summary of its strategies to achieve its scope 3 portfolio targets, Transition Capital developed the following bullet points on its asset classes:

- For its PE direct investments, Transition Capital plans to require new portfolio companies to measure their GHG emissions and set SBTs within two years of acquisition. For its borrowers in its direct lending portfolio, Transition Capital plans to require all new borrower companies to measure their GHG emissions and report their GHG emissions reductions to Transition Capital for annual disclosure progress of Temperature Rating scores
- For the optional asset class of secondaries and fund of funds, Transition Capital – through its secondaries strategy – commits to providing bespoke engagement with 100% of GPs on promoting SBTs and their uptake by 2035
- Through its funds of funds strategy, Transition Capital commits to provide bespoke engagement with 100% of GPs with management strategies on promoting SBTs and their uptake by 2035

8. How to Track Targets and Disclose Progress

Once SBTs are approved, the PE firm is required to track progress toward the SBT annually (**PE-C20 – Tracking and Reporting Target Progress**) and disclose progress leveraged over its investments. The PE firm may decide where to disclose its target progress, and examples include annual reports, the firm's website, and CDP (**PE-R12 – Where to Disclose**). PE firms shall choose a fixed point in time, such as the last day of its fiscal year (e.g., June 30 or December 31) to consistently report progress on an annual basis.

This chapter provides recommendations on target tracking and disclosure specific to asset classes and methods described in Chapter 6. The SBTi has developed target tracking and disclosure guidance to enhance transparency around progress against approved targets, as well as actions taken on asset classes not currently covered by targets.

8.1 Target Tracking and Disclosure for Required Asset Class

8.1.1 Tracking and reporting target progress for PE investments

SBTi recommends the following information to be included in a PE firm's annual reporting for its **SBT portfolio coverage target** on PE investments. It is an opportunity for PE firms to report new acquisitions, exits, as well as provide transparency around SBT coverage calculation approach:

Annual SBT coverage. In annual target tracking and reporting, the PE firm is required to set a fixed day of the year to report its SBT percentage coverage, i.e., the reporting day of linear trajectory to 100% coverage. SBTi appreciates that forecasting coverage of the selected metric out to the five-year short-term target has inherent uncertainty for PE firms, as their portfolio could significantly differ from the projection. Therefore, PE firms may update the numerator and denominator as their selected metric fluctuates over time, e.g., reduction in annual emissions, increase in invested capital through bolt-on acquisitions. Despite the fluctuations in the selected metric, PE firms are expected to achieve the original target ambition set out by their approved targets.

Firms should disclose any exclusions from the portfolio coverage target boundary (e.g., less than 12 months or 24 months) and disclose % SBT coverage with all PCs considered if there is any exclusion.³⁰

Number of new acquisitions. New PC acquisitions and significant acquisitions within a PC such as a merger.

Percentage of new acquisitions with approved SBTs. To provide transparency on whether the firm is strategically buying companies with existing SBTs.

³⁰ This is intended to provide additional transparency around PE firms' progress against their SBT portfolio coverage target and help the SBTi evaluate the need to reduce the length of the period during which PCs can be excluded as the carbon maturity of private companies evolve in the future.

Disclosure of engagement. Annual reporting under the SBT commitment should include disclosure of strategic engagement with the PE firm's portfolio, to show where the engagement has been targeted and what influence the PE firm was able to have over its investments. PE firms should target the biggest emitters with strategic engagement and disclose the reasons where the firm's influence has and has not gained traction, including the reasons why.

Disclosure of PE direct investments not covered by targets. PE firms are recommended to annually disclose where they have encouraged SBT setting for all new PC acquisitions beyond their target boundary (e.g., a minority hold in growth equity with 10% of share). Furthermore, if the PC has not adopted an SBT they should state why and explain what else the PC is doing to reduce GHGs, specifying information on the nature of their industry, growth projections and planned GHG mitigation measures.

For recommendations on reporting progress against **Temperature Rating targets**, please refer to Section 6.1.2 of the [FI Guidance](#).

8.1.2 Tracking and Reporting Target Progress for Real Estate and Electricity Generation Assets

SBTi recommends the following information to be included in a PE firm's annual reporting for its SDA targets on real estate and electricity generation private equity investments:

Progress against SDA targets. If the SDA method is used, PE firms should follow the PCAF standard and track and disclose emissions intensity of its assets in the relevant emissions intensity metric (e.g., kgCO₂ per m², kgCO₂ per kWh) on an annual basis, along with the percentage of outstanding investment value for this asset class (PCAF 2020). PE firms shall determine a point in time in a given year where the emissions intensity of the asset class is measured and use that consistently throughout the target period.

Percentage of portfolio(s) covered by targets. After ensuring that relevant target coverage requirements are met at the target submission stage, PE firms should continue to report the extent to which SDA targets cover the applicable sector portfolio by the relevant activity unit (e.g., percentage of square meter or kWh covered) on an annual basis.

Inventory rebaselining. Given the nature of a PE firm's investment cycle, rebaselining of asset class level financed emissions may become necessary when PCs are acquired or divested. This is especially relevant as SDA is based on reduction of emissions intensity and divesting from high-emitting assets may lead a firm to artificially lower its portfolio emissions intensity if the inventory is not properly recalculated. In line with the *GHG Protocol Scope 3 Standard* and the *PCAF Standard*, PE firms shall establish a baseline recalculation policy to define under which circumstances a recalculation of (base year) financed emissions is necessary. As part of this base year emissions recalculation policy, PE firms shall also establish and disclose the significance threshold that triggers base year emissions recalculations (WRI and WBCSD 2011). Please refer to page 36 and 37 of the *GHG Protocol Corporate Standard* for guidance around base year emissions recalculation for acquisition and divestment (WRI and WBCSD 2004).

8.2 General Disclosure Recommendations

More broadly, PE firms are encouraged to disclose actions taken towards engaging PCs within and beyond the scope of their SBTs. They are also encouraged to disclose their target progress on complementary reporting platforms.

8.2.1 Disclosure of engagement

PE firms are recommended to disclose strategic engagement with relevant actors in the applicable asset classes, such as PCs, borrowers, real estate management and electricity generation assets. PE firms should target the biggest emitting companies or assets, while also striving to devise decarbonization investment plans for all assets covered and not covered by an SBT. Furthermore, if the asset has not adopted GHG emissions reduction plans or an SBT, they should state why and explain what else the asset is doing to reduce GHGs (via the management company), specifying information on the nature of their industry, growth projections and planned GHG mitigation measures.

Given that several asset classes are **optional or have partial coverage requirements**, SBTi recommends PE firms refer to Table 8.1 in their annual reporting for any assets not covered by targets.

Table 8.1. Recommendations on metrics for annual disclosure for assets uncovered by targets

Asset Class		Target Boundary Requirement	Disclosure Requirements
Private equity direct investments	Real Estate	Required: 67% coverage by base year activity in square meter	Explain what the real estate assets beyond the 67% threshold are doing with GHG measurement and reduction
	Other PE direct investments (beyond electricity generation and real estate)		
	Buyouts, including co-investments Growth capital	Required: 100% coverage of PCs that meet the shares and board seat condition	Explain what PCs not covered by targets are doing with GHG measurement and reduction
	Venture capital	Required: 100% coverage of PCs that meet the size, shares, and board seat condition	% Coverage of SBTs Explain what PCs not covered by targets are doing with GHG measurement and reduction

Asset Class	Target Boundary Requirement	Disclosure Requirements
Credit/private debt, including infrastructure debt	Optional: no minimum coverage requirement	% Coverage of SBTs. Explain what direct lending borrowers without SBTs are doing with GHG measurement and reduction
Secondaries Fund of Funds	Optional: no minimum coverage requirement	% Coverage of engagement with relevant GPs, LPs and PCs

Source: Authors.

8.3 Integrated reporting

PE firms are recommended to annually disclose in line with complimentary carbon reporting channels, including TCFD, CDP, the Global Reporting Initiative (GRI), the Global ESG Benchmark for Real Assets (GRESB), etc. Disclosure should scale the climate exposure for additional transparency, where a PE firm's asset classes do not have required methods and attempt to tackle where the PC is potentially growing absolute emissions therein.

PE firms should disclose which companies they are engaging with, what their specific demands are, and publish an assessment of the engagement result at least annually. This will increase pressure on the PE industry, driving deeper and faster changes, shining a light behind closed doors to help shift high-carbon companies business models at the pace and scale required by the Paris Agreement.

Depending on the PE firm, climate actions' public disclosure should cover the adoption of climate-related policies for companies, the integration of the policy in mandates to investment managers and other service providers, a regular assessment of engagement impact, support to relevant shareholder resolutions, and divestment decisions if engagement is not deemed relevant – or does not deliver within set timeframes.

By making key climate-related decisions and activities public, PE firms will significantly amplify their impact. Given the climate urgency, the 'signaling effect' is critical to raise awareness towards peer PE firms, companies, service providers, policymakers, and other stakeholders. It emphasizes the importance of the issue and helps accelerate efforts by the abovementioned stakeholders.

9. How to Achieve Targets

There are numerous steps PE firms can take to achieve their portfolio SBTs. This section builds on the SBTi's criteria and recommendations for target setting and reporting, further recommending how PE firms can fully integrate climate change in their organization and services, achieving targets which will lead to GHG reduction in the real economy.

9.1 Integration of Climate Change in Governance

PE firms should integrate climate change across their firm. This can include the following:

- **Adoption of climate-related investment principles.** These should recognize that portfolio alignment with the Paris Agreement will contribute to investing in the best interests of PE firms' investors. Where PE firms have institutional investors with a fiduciary duty that does not include non-financial performance such as carbon, the PE firm should highlight or seek to mandate the principles of GHG emissions reduction as a fiduciary duty.
- **Establishment of a climate governance structure.** PE firms should make portfolio alignment with the Paris Agreement a board priority – including explicit attribution of this responsibility within the board. Governance structures should be put in place to ensure proper support and implementation of the policy, including incentive schemes, resource commitment, capacity building, and involvement of beneficiaries or clients. This integration should be in line with the TCFD governance recommendations.
- **Integration of climate change in the investment and/or lending policy.** PE firms should adopt an investment and/or lending policy that reflects and aligns with their climate-related investment principles to all their funds. Depending on the PE firm's fund strategies, this can include investment/lending targets, strategic asset allocation, engagement objectives, selection/screening criteria and incentives for service providers based on climate performance, as well as performance measurement and reporting.
- **Adjustment of strategic asset allocation to harness climate-related opportunities.** PE firms should consider climate risks and opportunities in strategic asset allocation, including increasing their exposure over the investment cycle where feasible to alternative asset classes that are more likely to have a direct positive climate impact on the real economy - such as PCs (renewable and energy efficiency companies), infrastructure (e.g., grids and renewable energy and real estate (highly energy-efficient and resilient buildings).
- **Adoption of additional sector-specific policies.** PE firms should extend their investment policy to sectors and technologies that pose climate-related risks or offer particular opportunities. These include:
 - Sectors where GHG-intensive companies have a significant potential to offer alternative solutions and therefore reduce their emissions e.g., power utilities, industrial sectors (steel, cement, chemicals), and the automotive sector

- Sectors deemed to shrink and ultimately disappear with the energy transition (e.g., coal, oil, and gas), where some companies still have the potential to make a timely shift to other business models. Sector policies should define criteria allowing the PE firm to identify to what extent the companies in its fund are able and willing to align their business model with the Paris Agreement, set out a strategy as to how the PE firm will urge companies to adopt 1.5 degrees Celsius transition plans through active ownership, and when companies are unable or unwilling to transition in a timely manner, identify at which point exposure reduction/divestment is desirable .
- **Development of methods or tools enabling climate action impact measurement.** Currently, there is insufficient clarity about which PE firms' actions lead to GHG emissions in the real economy. PE firms should engage with relevant service providers to develop tools allowing them to build a better understanding of the impact of their actions on GHG emissions and adjust their strategies according to these findings.

9.2 Engagement

Generating impact in the real economy requires all relevant stakeholders to move at the same time. Therefore, PE firms should leverage the influence they have over companies and policymakers. To ensure the environment they operate in is supportive of climate action, PE firms should collaborate with their peer PE firms to learn, share best practice, and, most importantly, increase engagement activities with PCs and policymakers. They should participate in and drive coalitions promoting the alignment of portfolios with the Paris Agreement, such as the iCI Group.

9.2.1 Company Engagement

PE firms should develop an engagement strategy to achieve Paris Agreement alignment of their PCs, assets, and borrowers, through the adoption and publication of time-bound 1.5 degrees Celsius transition plans with the following elements:

- A commitment to align business models with the Paris Agreement and, more concretely, a time bound climate science-based transition target built on forward-looking climate scenario analysis, e.g., a SBT Portfolio Coverage target for applicable funds where all PCs in the boundary of these targets set approved SBTs by 2040
- Target disclosure and transition plans for alignment with TCFD recommendations. Such information should be published in mainstream financial reports (integrated reporting)
- Capital management plans to end capital expenditure for new high-carbon projects where the PE firm has majority control over PCs and increase capital expenditure for low-carbon projects with a clear timeline for the closure of existing high carbon assets
- A commitment to review and ratchet up targets and transition plans in light of the evolving climate science

- A public commitment to support policies aiming to reduce emissions in line with the Paris Agreement, be transparent about lobbying activities and related expenditures, and exit third party organizations (e.g., business and trade associations) promoting policies that pose a risk to the achievement of the Paris Agreement

Given the urgency of tackling climate change, PE firms should have plans in place to ensure PCs are supported to meet their targets. For example, with credit/private debt, this means supporting borrowers to measure their GHG emissions and requiring them to disclose their actions to reduce carbon year on year, helping lower their Temperature Rating score and improve the PE firm's carbon performance.

9.2.2 Policy engagement

PE firms should engage with policymakers in favor of the proper implementation of the Paris Agreement – as the best pathway to mitigate their climate-related risks, maximize their positive contribution to climate goals, protect the long-term value of their assets, and invest in the best interest of investors.

When engaging with policymakers, PE firms should ask about:

- Climate policies, energy policies and regulations aligned with Paris Agreement and its embedded climate targets
- Adequate climate and wider ESG corporate disclosure policies and regulations to ensure relevant climate and ESG data become available to investors
- Financial policies and regulations driving better understanding of climate-related risks and opportunities for PE firms, through the assessment of climate and wider ESG risks for investors and their mitigation, with the ultimate goal of portfolio alignment with the Paris Agreement

10. Discussion and Areas of Future Work

The SBTi recognizes a number of areas where future discussions and work could benefit the next iteration of this Guidance.

Given the condensed timeline from May 2021 to COP26 in November 2021, the Guidance has prioritized focus on the largest asset classes by representative close ended AUM, namely private equity direct investments. This Guidance has focused less on credit/private debt, which represents a smaller share of AUM, in part due the inherent complex nature of its asset class.

Furthermore, this Guidance is an extension of the [FI Guidance](#) and does not offer new methods beyond those three methods within the SBTi FI framework, namely SDA, portfolio coverage and Temperature Rating. This project was not set out to develop additional methods to assist with SBT setting, beyond the existing [tools](#) available.

European, UK and US stakeholders were most represented in the consultation process of this Guidance. Additional consultations with other regions would strengthen future iterations of this Guidance to enable adoption on a global scale.

The guidance supports PE firms to set interim science-based targets – further guidance is needed for PE forms to set portfolio net-zero targets. The SBTi financial sector team is currently developing a foundations paper setting out key principles for FIs' portfolio net-zero targets and will develop target setting criteria for net-zero portfolio targets in 2022. This process should bring clarity to PE firms wishing to align their portfolios with net-zero – however, further clarification may be needed to suit the PE context.

The SBTi propose the following areas for discussion and work for future iterations of this Guidance:

- Credit/private debt
 - Explore how the existing methods could be 'required' for the credit/private debt asset class, by defining an appropriate boundary to private debt sub-strategies, and working through how the methods can be applied
 - Ensure there is representation from a newly formed private debt Expert Advisory Group, including the largest private debt providers within this market, as well as all other key stakeholders, e.g., regulators, NGOs, academics, etc.
 - The private debt providers should road-test the proposed criteria, boundaries, and methods to ensure SBTs are ambitious in their alignment with the science and also pragmatic for setting SBTs to shift the industry toward a zero-carbon economy
- Road-test the Temperature Rating approach
 - Along with any road-testing of the Temperature Rating approach within the credit/private debt EAG, the method should also be road-tested across all applicable asset classes

- The feedback from both sets of road-testing should help formulate how this Guidance, and the asset classes herein, align with the practical steps of the Temperature Rating method, and provide any additional support to help PE firms successfully adopt the method
- Portfolio coverage tool for target development and tracking
 - There is an opportunity for the SBTi to develop a tool (online or workbook-based) to help PE firms calculate portfolio coverage targets relative to their funds and growth trajectories
 - The tool could provide a simple step by step guide to help consistency amongst PE firms who submit targets using the method, guiding each PE firm toward the recommended approach, e.g., using GHG emissions as the selected metric, ensuring PE firms PCs are accounted for after 12 months post-investment, etc.
 - The tool could ultimately be aligned in setting both a short-term target (presently required) and potentially a long-term target for when the SBTi net-zero criteria for FIs are available.
- Venture capital
 - Given that venture capital firms were not well represented in the project EAG, SBTi has taken the conservative approach of requiring later-stage startups to be covered by targets, with the assumption that these startups are better positioned to establish GHG inventories and targets. Depending on the adoption of the Guidance by venture capital firms or multi-strategy firms with venture capital funds, SBTi may revise its requirements on venture capital in future iterations of this Guidance or refer to alternative target setting frameworks that may be more suitable for a venture capital context
- PE industry accounting practice
 - This Guidance provides new, PE-specific recommendations to compile firm-level GHG inventories. SBTi aims to ensure there is cooperation between this Guidance and other financial industry accounting standards, such as PCAF, to ensure clarity and consistency of inventory accounting practices among PE firms

11. Glossary

Table 11.1 provides a list of the terms used within Private Equity Sector Science Based Target Setting Guidance (this Guidance).

Table 11.1: Glossary

Term	Definition
Absolute target	A target defined by reduction in absolute emissions over time e.g., reduce GHG emissions 50% by 2030 from a 2020 base year.
Assets	<p>A resource, such as land, buildings, equipment, owned by a company and used to produce income for it (Cambridge 2021).</p> <p>Third-party funds, individual businesses, real estate or infrastructure assets or financial products, such as loans, invested in by PE Funds.</p>
Asset class	A group of financial assets or instruments that have similar financial characteristics (SBTi 2021).
Attribution share/contribution factor	Share of total GHG emissions of the borrower or investee that are allocated to the loan or investments (PCAF 2020).
Avoided emissions	Emission reductions produced by the financed project versus what would have been emitted in the absence of the project (counterfactual baseline emissions). Avoided emissions are not included in SBTs (SBTi 2021).
Biogenic CO₂e emissions	Emissions from a stationary source directly resulting from the combustion or decomposition of biologically based materials other than fossil fuels (SBTi 2021).
Borrower	The company to whom capital is loaned as part of credit or private debt loans.
Buyout	In a buyout investment, the investor often has complete or majority ownership and control of the company. Unlike leveraged buyouts (LBO), buyouts can also have a minority stake of the company being purchased. (Preqin 2021).
Capital market strategies	Capital markets describe any exchange marketplace where financial securities and assets are bought and sold. In the PE context, this more routinely relates to trading in liquid credit assets.

Carbon accounting of financial portfolios

The annual accounting and disclosure of GHG emissions associated with loans and investments at a fixed point in time in line with financial accounting periods. This is also called ‘portfolio carbon accounting’ (SBTi 2021).

Climate impact

In the context of this framework, climate impact refers to the GHG emissions that occur as a result of financing of loans and investments (SBTi 2021).

Climate-related risks

Financial risk associated with climate-related investments and activities, including carbon asset or transition risk, physical risk, and legal risk (SBTi 2021).

CO₂-equivalent (CO₂e)

The amount of CO₂ that would cause the same integrated radiative forcing (a measure of climate change drivers’ strength) over a given time horizon as an emitted amount of another GHG (or mixture of GHGs). As the science advances, conversion factors vary based on the underlying assumptions (SBTi 2021).

Consolidation approach

Refers to how an organization sets boundaries for corporate GHG accounting. Three consolidation approaches include equity approach, financial control and operational control as per *The Corporate Value Chain (Scope 3) Accounting and Reporting Standard* (WRI and WBCS 2011).

Convertible preferred equity investments

Corporate hybrid securities an investor can choose to turn into a certain number of shares of the company's common stock after a predetermined time span or on a specific date (Investopedia 2021).

Credit/private debt

Private credit, or private debt, is the capital investment to acquire the debt of companies (as opposed to acquiring equity). Private debt includes sub-strategies mentioned in Table 6.2 of this Guidance: direct lending, distressed debt, infrastructure debt, mezzanine debt, real estate debt, special situations, venture debt.

Private debt covers loan finance i.e., when money is lent to a company to fund ongoing operations or the improvement of infrastructure. Private debt is not traded or issued in an open market. Private debt can be loaned to both listed or unlisted companies, as well to real assets such as infrastructure and real estate. For the purpose of this Guidance, lenders are specialist private credit funds but can be from any non-bank private FIs (Preqin 2021).

Debt-to-equity ratio

Also called the ‘debt-equity ratio’, ‘risk ratio’, or ‘gearing’, the debt-to-equity ratio is a leverage ratio that calculates the weight of total debt and financial liabilities against total shareholders’ equity. Unlike the debt-assets ratio which uses total assets as a denominator, the debt-to-equity ratio uses total equity. This ratio highlights how a company’s capital structure is tilted towards either debt or equity financing (Corporate Finance Institute 2021).

Direct emissions

Emissions from sources owned or controlled by the reporting entity (SBTi 2021).

Distressed debt

Debt normally involving securities purchases in the secondary market – rather than new origination of debt or structured equity (Pitchbook 2021).

Double counting

Occurs when a single GHG emission reduction or removal, achieved through a mechanism issuing units, is counted more than once toward attaining mitigation or financial pledges for the purpose of mitigating climate change within one or multiple organizations (SBTi 2021).

Emissions intensity metric

Emissions per a specific unit, for example: tCO₂e/\$million invested, tCO₂e/MWh, tCO₂e/ton produced, tCO₂e/\$million company revenue (SBTi 2021).

Emissions removal

The action of removing GHG emissions from the atmosphere and storing through various means, e.g., soils, trees, underground reservoirs, rocks, the ocean, as well as products like concrete and carbon fiber (SBTi 2021).

Emission Scopes

The [GHG Protocol Corporate Standard](#) classifies an organization’s GHG emissions into three scopes. Scope 1 emissions are direct emissions from owned or controlled sources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all other non-scope 2 indirect emissions that occur in the value chain of the reporting organization, including both upstream and downstream emissions – and in the context of this Guidance, emissions in Category 15 associated with PE firms’ investment and lending activities are also included (SBTi 2021).

Enterprise Value Including Cash (EVIC)

The market capitalization sum of ordinary shares at fiscal year end, the market capitalization of preferred shares at fiscal year-end, and the book values of total debt and minorities’ interests. To avoid the possibility of negative enterprise values and considering that cash as an important financing source for many companies, should carry its fair

share of emissions, no deductions of cash or cash equivalents are made (SBTi 2021).

Financed emissions	Absolute emissions that banks and investors finance through loans and investments. These can be calculated and disclosed at an asset class level (SBTi 2021).
Financial institutions (FIs)	The SBTi defines FIs as companies whose business involves the dealing of financial and monetary transactions, including deposits, loans, investments, and currency exchanges. If 5% or more of a company's revenue or assets comes from the above activities, they are considered to be FIs. Development FIs are currently out of scope (SBTi 2021).
Fund of funds	A PE fund which invests in funds, as opposed to directly into portfolio companies. Funds of funds are frequently also active participants in the secondary market (Guy, 2010).
Fully diluted shares	A company's total number of common shares that will be outstanding and potentially transferable after all possible sources of conversion, such as convertible bonds and employee stock options, are exercised (Investopedia 2021).
General Partner (GP)	PE fund management firms are often known as GPs since most PE funds take the form of limited partnerships. These are required by law to have a GP that is responsible for the operation of the limited partnership. GP can refer to the management entity or to individual partners within such entities. GPs raise capital from third-party investors, into a specific fund which will then be invested into certain types of assets according to an investment strategy. GPs thus identify the assets to be invested in, execute those investments, and then manage them until eventual exit (Guy, 2010).
Greenhouse gas (GHG) emissions	The seven gases covered by the United Nations Framework Convention on Climate Change (UNFCCC) – carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF ₆), and nitrogen trifluoride (NF ₃) (SBTi 2021).
GHG Protocol	Comprehensive global standardized frameworks to measure and manage GHG emissions from private and public sector operations, value chains, and mitigation actions. The GHG Protocol supplies the world's most widely used GHG accounting standards. The Corporate Accounting and Reporting Standard provides the accounting platform for virtually every corporate GHG reporting program in the world (SBTi 2021).

GHG accounting

Techniques for tracking GHG emissions resulting from a company's operations. Two primary approaches are corporate accounting through an annual GHG inventory – which involves financed emissions as part of the accounting – and project accounting through estimating net emission reductions or increases from individual projects or activities relative to a baseline scenario (SBTi 2021).

Growth capital

Also known as growth equity or expansion capital, this is a type of – often minority – PE investment in relatively mature companies looking for primary capital to expand and improve operations or enter new markets to accelerate business growth. Growth capital is separate from venture capital (Investment Council 2021).

Indirect emissions

Emissions that are a consequence of the activities of the reporting entity but occur at sources owned or controlled by another entity (SBTi 2021).

Infrastructure private equity

Investing in the equity of infrastructure assets to gain ownership and control. There are dedicated infrastructure PE firms – however, plenty of pensions, large banks, sovereign wealth funds, and other entities also make 'equity investments in infrastructure' (Mergers & Acquisitions 2021).

Infrastructure debt

Like private debt, infrastructure debt is not traded or issued in an open market. Private infrastructure debt can be loaned to both listed and unlisted companies. Infrastructure debt funds invest in debt linked directly to projects and to corporate entities dependent on the debt strategy. Infrastructure debt funds target project finance – however, there is no single definition among investors of what constitutes infrastructure. As a result, sector and risk exposures of funds differ (Cambridge Associates 2018).

Investment

To invest is to allocate money/capital with the expectation of a positive benefit or profitable returns in the future, typically as interest, income, or appreciation in value (Investopedia 2021).

Lender

The firm lending capital to the borrower via credit or private debt loans.

Leveraged buyouts (LBO)

A PE fund's acquisition of a portfolio company (PC) using relatively significant levels of debt finance to meet the cost of acquisition. An LBO usually sees the buyer take a majority stake and gain control of the PC.

Limited Partner (LP)

Investors in PE funds are also known as LPs, since most PE funds take the form of Limited Partnerships (Guy, 2010).

Listed equity and bonds

All corporate bonds without known use of proceeds and all listed equity investments on the balance sheet and/or actively managed by the FI (SBTi 2021).

Mezzanine debt

Subordinated debt repaid after senior debtors are repaid in full. Mezzanine debt is often used in buyouts and thus can include embedded equity instruments (Pitchbook 2021).

Multi-strategy funds

Multi-strategy funds engage in a variety of investment strategies (Eureka Hedge 2021).

Paris Agreement

Adopted within the United Nations Framework Convention on Climate Change (UNFCCC) in December 2015, the Paris Agreement commits all participating countries to limit global temperature rise to well-below 2 degrees Celsius above preindustrial levels and pursue efforts to limit warming to 1.5 degrees Celsius, to better adapt to and increase efforts towards tackling climate change (SBTi 2021).

Portfolio Company (PC)

A PC is a company or entity invested in by a GP/PE fund (Corporate Finance Institute 2021).

Private equity

The share capital of unlisted companies – however, the term is more commonly used to refer to the PE fund management industry, which is the raising and investment of funds consisting principally of third-party institutional capital into the share capital of unlisted companies. A PE fund, distinct from a venture capital fund, will typically take large minority (30%+) or majority equity positions in relatively mature companies.

Private equity direct investment

Medium to long-term finance provided in return for an equity stake in unlisted companies. Deployed through strategies such as buyouts. As well as investment in more mature companies, PE direct investments can be broken down into growth capital and venture capital, for less mature and/or smaller businesses (BVCA 2021).

Private equity (PE) firm

A PE fund management firm. Alongside PE fund manager, PE firm, and GP, these are terms that are commonly used interchangeably, and also referred to as the reporting entity.

Project finance

On-balance sheet loan or equity with known use of proceeds at the level of economic activity, e.g., within infrastructure, the construction of a gas-fired power plant, a wind or solar project, or energy efficiency projects (Finansdanmark 2021).

**Reporting entity
(i.e., GP)**

For the purpose of this Guidance, the GP serves as the reporting entity consolidating the GHG inventory for its operations (i.e., scope 1 and 2) and its investment and lending activities within its managed funds (i.e., scope 3 category 15), and submits the targets. The reporting entity is not at the LP level.

Real Estate

Property consisting of land and resources attached to it. In the context of this Guidance, real estate refers to service and residential buildings (Investopedia 2021).

Real estate debt

The most common real estate debt strategy is direct lending for real estate acquisitions. This includes buying and selling securitized real estate loans in the secondary market (Pitchbook 2021).

Scenario analysis

A process of analyzing future events by considering alternative possible outcomes (SBTi 2021).

**Science-based
reduction targets
(SBTs)**

Targets adopted by companies to reduce GHG emissions are considered “science-based” if they are in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement – to limit global warming to 1.5 degrees Celsius above pre-industrial levels and pursue efforts to limit warming well-below 2 degrees Celsius (SBTi 2021).

Scope 1 emissions

Emissions from operations that are owned or controlled by the reporting company (SBTi 2021).

Scope 2 emissions

Emissions from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company (SBTi 2021).

Scope 3 emissions

All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions (SBTi 2021). Scope 3 emissions are a consequence of company activities but occur from sources not owned or controlled by it. Examples of scope 3 activities include extraction and production of purchased materials, transportation of purchased fuels, and using sold products and services.

Scope 3, category 15 (investment) emissions

This category includes scope 3 emissions associated with the reporting company's loans and investments in the reporting year, not already included in scope 1 or scope 2 (SBTi 2021).

For category 15, the GHG Protocol Corporate Standard only requires the inclusion of corporate debt holdings with known use of proceeds. This Guidance goes beyond this requirement and thus expands the minimum boundary of category 15. PE firms shall follow emissions measurement requirements in the relevant asset class methods and measure emissions of debt investments without known use of proceeds, where applicable.

Secondary

A secondary interest is an ownership position in an existing fund which may or may not be fully invested but has not been fully exited and wound up. Such interests are usually transferable, subject to certain conditions, and a secondary market has grown up to cater for such transactions, a number of specialist firms having been set up for the purpose (Guy, 2010).

Sequestered emissions

Atmospheric CO₂ emissions captured and stored in solid or liquid form, thereby removing their harmful global warming effect (SBTi 2021).

Sector-specific metrics

Energy or carbon intensity metrics that use a physical unit denominator and are applicable to a specific sector. Examples include kgCO₂/MWh (power), MWh/m² (real estate), etc. (SBTi 2021).

Small and medium-sized enterprises (SMEs)

The SBTi provides a streamlined target validation route for SMEs, where an SME is defined as a non-subsidiary, independent company with fewer than 500 employees. PE firms should thus direct investees with more than 500 employees to the regular SBTi validation route.

Special situations

Debt or structured equity investments made with the intent of gaining control of a company – generally, one in financial distress (Pitchbook 2021).

Total balance sheet value

The sum of total equity and liabilities, equal to the company's total assets (Open Risk Manual 2021).

Venture capital

Professional minority investments in small and micro companies, where no single professional investor owns more than 50%.

Venture debt

Debt financing extended to companies with venture capital backing. For entrepreneurs, venture debt serves to extend the runway to exit without further diluting ownership (Pitchbook 2021).

12. References

- Bain & Company. 2021. *Global Private Equity Report*.
https://www.bain.com/globalassets/noindex/2021/bain_report_2021-global-private-equity-report.pdf.
- Basri, Nadine. 2020. *The Difference Between the Three Types of Partnerships*.
<https://theincorporators.com/blogs/news/the-three-types-of-partnerships>.
- British Private Equity and Venture Capital Association. 2021. *Private Equity Explained*.
<https://www.bvca.co.uk/Our-Industry/Private-Equity>.
- Cambridge Dictionary. 2021. *Capital Asset*.
<https://dictionary.cambridge.org/dictionary/english/capital-asset>.
- Cambridge Associates. 2018. *Infrastructure Debt Understanding the Opportunity*.
<https://www.cambridgeassociates.com/wp-content/uploads/2018/08/Infrastructure-Debt-%E2%80%93-Understanding-the-Opportunity.pdf>.
- Carbon Disclosure Project. 2021. *Data and insights*.
<https://www.cdp.net/en/data>
- Commission Delegated Regulation (EU). 2020. European Commission.
<https://ec.europa.eu/transparency/regdoc/rep/3/2020/EN/C-2020-4757-F1-EN-MAIN-PART-1.PDF>.
- Corporate Finance Institute. 2021. *Debt Equity Ratio*.
<https://corporatefinanceinstitute.com/resources/knowledge/finance/debt-to-equity-ratio-formula/>.
- Corporate Finance Institute. 2021. *Portfolio Company*.
<https://corporatefinanceinstitute.com/resources/knowledge/strategy/portfolio-company/>.
- Deloitte Insights. 2020. *The Growing Private Equity Market*.
<https://www2.deloitte.com/us/en/insights/industry/financial-services/private-equity-industry-forecast.html>.
- EC User guide to the SME Definition “KLP Goes Coal Free.” 2020. KLP - English.
<https://www.klp.no/en/press-room/klpgoes-coal-free>.
- Eurek Hedge. 2021. *Multi-Strategy Hedge Funds*.
<https://www.eurekahedge.com/Research/News/1048/Multi-Strategy-Hedge-Funds-Strategy-Outline>.
- Finansdanmark. 2021. *Framework for Financed Emissions Accounting*.
https://finansdanmark.dk/media/47060/fida_financedemissionsaccounting-rgbsingles.pdf.
- Guy, Fraser-Sampson. 2010. *Private Equity as an Asset Class, Second edition*.

https://books.google.co.uk/books/about/Private_Equity_as_an_Asset_Class.html?id=Ss0U745ivOAC&redir_esc=y.

International Energy Agency. 2017. *Energy Technology Perspectives*.

<https://www.iea.org/reports/energy-technology-perspectives-2017>

International Energy Agency. 2021. *Net Zero by 2050*.

<https://www.iea.org/reports/net-zero-by-2050>.

Intergovernmental Panel on Climate Change. 2021. *Assessment Report 6*.

<https://www.ipcc.ch/report/ar6/wg1/>

Investopedia. 2020. *Real Estate vs Real Property: What's the Difference?*

<https://www.investopedia.com/ask/answers/100214/what-difference-between-real-estate-and-real-property.asp>.

Investment Council. 2021. *Industry Glossary*.

<https://www.investmentcouncil.org/industry-glossary/>.

Investopedia. 2021. *Fully Diluted Shares*.

<https://www.investopedia.com/terms/f/fullydilutedshares.asp>.

Investopedia. 2021. *Investment*.

<https://www.investopedia.com/terms/i/investment.asp>

Investopedia. 2021. *Leveraged Buyout (LBO)*.

<https://www.investopedia.com/terms/l/leveragedbuyout.asp>.

Investopedia. 2021. *Passive Minority Interests*.

<https://www.investopedia.com/terms/m/minorityinterest.asp>.

Investopedia. 2021. *Private Equity Real Estate*.

<https://www.investopedia.com/terms/p/private-equity-real-estate.asp>.

Investopedia. 2021. *The Difference Between a Capital Market and the Stock Market*.

<https://www.investopedia.com/ask/answers/021615/whats-difference-between-capital-market-and-stock-market.asp>.

Investopedia. 2021. *Understanding Convertible Preferred Shares*.

<https://www.investopedia.com/articles/stocks/05/052705.asp>.

NATIXIS. 2018. "ESR Sector Policy Applicable to Oil & Gas Industry."

https://www.natixis.com/natixis/upload/docs/application/pdf/2018-11/natixis_esr_sector_policy_oil_gas.pdf.

Mergers and Acquisitions. 2021. *Infrastructure Private Equity*.

<https://www.mergersandinquisitions.com/infrastructure-private-equity>.

McKinsey & Company.

2016. *Financing Change: How to mobilize private-sector financing for sustainable infrastructure.*

http://2015.newclimateeconomy.report/wpcontent/uploads/2016/01/Financing_change_How_to_mobilize_private-sector_financing_for_sustainable-infrastructure.pdf.

McKinsey & Company. 2021. *A Year of Disruption in the Private Markets.*

<https://www.mckinsey.com/~media/mckinsey/industries/private%20equity%20and%20principal%20investors/our%20insights/mckinseys%20private%20markets%20annual%20review/2021/mckinsey-global-private-markets-review-2021-v3.pdf>.

Open Risk Manual. 2021. *Total Balance Sheet Value.*

https://www.openriskmanual.org/wiki/Total_Balance_Sheet_Value.

Organization for Economic Co-operation and Development. 2019. *Who are the owners of the world's listed companies and why should we care?*

<https://www.oecd.org/corporate/who-are-the-owners-of-the-worlds-listed-companies-and-why-should-we-care.htm>.

Pan-Tribal Asset Management. 2021. *CPD: The case for listed private equity – Part 1 – Listed versus private companies.*

<https://www.adviserveice.com.au/2021/08/cpd-the-case-for-listed-private-equity-part-1-listed-versus-private-companies/>

Partnership for Carbon Accounting Financials. 2020. *The Global GHG Accounting and Reporting Standard for the Financial Industry.*

https://ghgprotocol.org/sites/default/files/standards/The%20Global%20GHG%20Accounting%20and%20Reporting%20Standard%20for%20the%20Financial%20Industry_0.pdf.

Phalippou, Ludovic. 2017. *Private Equity Laid Bare.*

https://books.google.co.uk/books/about/Private_Equity_Laid_Bare.html?id=oim0swEACAAJ&redir_esc=y

Pitchbook. 2021. *What is private debt?*

<https://pitchbook.com/blog/what-is-private-debt>.

Preqin. 2021. *Private Equity.*

<https://www.preqin.com/academy/lesson-4-asset-class-101s/private-equity-venture-capital/privateequity>.

Preqin. 2021. *Why Invest in Private Debt.* <https://www.preqin.com/academy/lesson-4-asset-class-101s/private-debt>.

Robeco Institutional Asset Management B.V. 2020. "Exclusion Policy Robeco: Robeco Institutional Asset Management."

<https://www.robeco.com/docm/docu-exclusion-policy-and-list.pdf>.

S&P Global. 2021. *Private Company Data.*

<https://www.spglobal.com/marketintelligence/en/documents/private-company-data.pdf>.

Science Based Targets initiative. 2021. *Frequently Asked Questions*.
<https://sciencebasedtargets.org/faqs>.

Science Based Target initiative. 2021. *Financial Sector Science-Based Targets Guidance*.
<https://sciencebasedtargets.org/resources/files/Financial-Sector-Science-Based-Targets-Guidance-Pilot-Version.pdf>.

Science Based Target Initiative. 2021. *SBTi Corporate Manual*.
<https://sciencebasedtargets.org/resources/files/SBTi-Corporate-Manual-v1.1.pdf>.

Science Based Target initiative. 2021. *SBTi Criteria and Recommendations (Version 4.2)*.
<https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf>.

Science Based Target Initiative. 2021. *SBTi Criteria and Recommendations (Version 5)*.
<https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf>

Wikipedia. 2021. *Investment*.
<https://en.wikipedia.org/wiki/Investment>

Wikipedia. 2021. *Portfolio Company*.
https://en.wikipedia.org/wiki/Portfolio_company.

World Resources Institute. 2015. *GHG Protocol Scope 2 Guidance*.
https://ghgprotocol.org/sites/default/files/ghgp/standards/Scope%20%20Guidance_Final_0.pdf.

World Resources Institute and World Business Council for Sustainable Development. 2011. *Corporate Value Chain (Scope 3) Accounting and Reporting Standard*.
https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporting-Standard_041613_2.pdf.

World Resources Institute and World Business Council for Sustainable Development. 2004. *The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard, Second Edition*.
<https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>.