



SUSTAINABLE VALUE

ESG RISKS IN COMMERCIAL REAL ESTATE LENDING

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The Sustainable Value in Lending Working Group included representatives from the following firms:



Executive Summary

In the Spring 2023, CREFC Europe, in collaboration with AREF, established a working group of property professionals to consider common approaches to sustainability and environmental, social and governance (ESG) risks in real estate valuations for commercial lending. This report contains our collective commentary on how to put into practice the “Sustainability and ESG in commercial property valuations and strategic advice, 3rd Edition⁽¹⁾” professional standard, particularly for commercial lending in the UK market to commercial property either with asset sizes in excess of £10 million or portfolio sizes in excess of £25 million.

The ways that sustainability and ESG factors impact commercial property lending are evolving quickly, as are the related regulations. This report reflects the market today and seeks to provide more consistency and clarity (albeit we expect that these practices will evolve rapidly, potentially superseding these recommendations). We believe this report to be a practical baseline which should be used to establish more common practices and improve certainty and consistency in how buildings are financed with alignment to the UK’s transition to net zero.

In this report:

- We provide recommendations on how sustainability-oriented features may impact value. Currently the sustainability features which are most explicit in valuations are those which address climate risks.
- We consider some of today’s most material ESG factors but establish that climate risk currently outweighs others in how the market considers sustainability in asset values.
- A key focus is on how lenders and valuers should adopt common approaches to capital expenditure (capex) when considering sustainability in asset valuations in line with the market, noting that sustainability related capex should be treated within rather than alongside other forms of asset investment and expenditure.
- We align our recommendations with RICS Global Red Book requirements and related guidance, including the RICS Professional Standard and the RICS UK Commercial Secured Lending – Draft ESG Framework⁽²⁾.

Our key findings are:

1. We are beginning to see how sustainability and ESG factors will affect property value, and our expectation is that assets which are poorly positioned on ESG matters may risk becoming obsolete within the UK commercial property market in the relatively short term. This is a form of accelerated depreciation, reducing asset values faster than those with basic ESG hygiene, while a strong positioning on ESG risks is increasingly required for Prime rents and yields. This is driven by the rapid evolution of ESG reporting requirements for lenders, investors, owners and tenants.
2. Climate risks are the primary ESG impacts to lending which should be explicitly considered within initial valuations in commercial lending. These include both market-level transition risks and physical risks.

¹ RICS, “[Sustainability and ESG in Valuations and Strategic Advice, 3rd Edition](#)”, December 2021. The document was initially released as a Guidance Note but has since been amended to become a professional standard, so it is referred to in this paper as the RICS Professional Standard.

² RICS, “[UK Commercial Secured Lending - Draft ESG Framework](#)”, 3 July 2023.

3. The risks lenders should focus on are related to how the physical asset can be transitioned towards a low carbon economy to address current and future regulations or requirements by tenants and investors in the market. This includes upgrading assets to decarbonise heating, become more energy efficient, and address any identified physical risks to the asset.
4. Failure to anticipate these risks may expose the lender to:
 - a. Regulatory risks as climate legislation accelerates in line with UK and international commitments.
 - b. Accelerated depreciation of asset values as tenants and investors seek assets made future-proof through strong ESG positioning.
 - c. Reputational risks associated with ESG reporting and increasing scrutiny of lenders' practices.
 - d. Loss of value due to the physical risks of climate change on poorly adapted assets.
5. Those professional roles involved in the lending process may need to adapt their practices to provide more scrutiny and greater detail on ESG risks and associated costs required to address these risks. These include:
 - a. The sponsor/borrower may be required to provide greater detail on the ESG risks associated with the asset and mitigation plans for these risks over the course of a financing.
 - b. Lenders may need to improve their risk management processes to interpret and respond to ESG risks, especially climate risks and associated capex.
 - c. Valuers to consider ESG risks, to the extent possible, including analysis of market evidence and comparables, potentially in the initial valuation report. We consider such risks within this report.
 - d. Due diligence may require additional focus on addressing climate risks and supporting capex plans, which may require additional advice, as well as new expertise and reporting.
6. Lenders may require of the sponsor/borrower more detailed asset business plans clearly laying out the capital expenditure required to address climate risks to mitigate anticipated risks to value over the course of the loan. These can include the costs to upgrade the asset to improve EPCs or address flood risk, for example. These costs should be realistic, provided by professional experts, both in the detail of the cost and how the planned works will be carried out within the occupancy of the asset(s) over the course of the loan.

The recommendations in this report are proposed as a common practice interpretation of how to incorporate sustainability and ESG risks into loan assessments including valuation reports for secured commercial real estate lending in the UK. The recommendations are focused on commercial real estate lending, specifically in the interpretation of the valuation of an asset or portfolio of assets, rather than any corporate valuations. They do not serve as formal guidance and are not regulated practices. We believe that lenders, valuers and sponsors/borrowers may find these recommendations useful in interpreting formal regulated guidance from the RICS and other valuation standards. These recommendations should not be considered best practice, as lenders and valuers may consider enhanced practices are required to manage specific ESG risks within the lending process.

Introduction

Following the December 2021 publication of the RICS' "[Sustainability and ESG in Valuations and Strategic Advice](#)"⁽³⁾ ("RICS Professional Standard") CREFCE has, in collaboration with AREF, convened a working group to determine how the guidance should be implemented for major lenders on commercial buildings in the UK. This document is the output from working group meetings held between June and August 2023.

The objective of this document is to provide a **practical guide** to a current common practice interpretation of the RICS Professional Standard, including defining services additional to the valuation, which may be required to achieve the guidance. It is **focused on UK-based banks and debt funds** lending on **commercial property in the UK** on either **asset sizes in excess of £10m or portfolio sizes in excess of £25m** (though relevance may diminish on long-tail assets with low anticipated asset value). Non-UK lenders and other parties may also find this guidance useful.

This document seeks to develop guidance to support a common set of lender requirements covering key ESG/sustainability issues when undertaking routine valuations of commercial property. As such, this document has been developed as an initial "version 1", consolidating current market practices, recognising that the guidance and requirements will quickly evolve and lender and valuer practices will need to be adjusted to meet requirements of specialist sectors. This report maintains a focus on sustainability and ESG as they specifically impact on Market Value.

Valuers must reflect market value, so the recommendations in this report may be more pragmatic than ambitious. This is deliberate, as we are seeking to promote consistency and certainty so that the market may move collectively forward in recognising standard practices in how sustainability considerations may or may not be reflected in asset valuations.

This guide is not a standard or practice information and should not be considered formal guidance. It is provided for information only.

The CREFCE Sustainable Value in Lending Working Group

This report is the product of seven workshops which took place between June and August 2023. The workshops broadly aligned with the sections in this report. Participants in the workshops included major lenders, valuation houses and related consultancies in the UK. The invite list for the workshops included around 40 representatives welcomed to participate on a "drop in" basis from the following organisations:

Accenture, AIG, Aviva Investors, Bank of Ireland, Barclays, CBRE, Cerberus, Cheyne Capital, Dechert, DekaBank, Deutsche Pfandbriefbank, Evora Global, Federated Hermes International, HSBC, JLL, Knight Frank, LaSalle, Lloyds Banking Group, Royal Bank of Canada, Santander, Savills and Wells Fargo.

The draft of this report was subsequently reviewed by the CREFCE working group and secretariat, the AREF ESG and Impact Investing Committee, Better Buildings Partnership (BBP) and the RICS.

³ RICS, "[Sustainability and ESG in Valuations and Strategic Advice, 3rd Edition](#)", December 2021.

Relationship with the RICS UK Commercial Secured Lending ESG Framework

The content in this report has been developed having regard to the draft RICS UK Commercial Secured Lending ESG Framework, dated 3 July, 2023⁽⁴⁾ (RICS ESG Framework). It is designed to provide further context to the RICS ESG Framework, and work through some of the implications and associated practices.

This guide departs from the RICS ESG Framework by focusing more specifically on lending on commercial property in the UK on larger transactions; those with either asset sizes of £10m or more or portfolio sizes of £25m or more. It can, however, also inform or be adapted to support how ESG and sustainability could be considered outside of the UK or in smaller lending deals.

Relationship with AREF Sustainable Value Report

In March 2023, AREF published a sister report to this one, aimed at Fund Managers in UK Commercial Real Estate. Some of the content in that report has informed this report. The CREFCE working group refined the content to focus on the lender perspective. Our expectation is that these reports should have common themes but reflect the different audiences at which they are targeted.

Relationship with “Green Finance” products

While lenders may have targeted Green Finance products such as green loans or sustainability linked loans, this report is focused on all forms of lending to commercial real estate. While lenders may attach additional requirements and incentives to specific loan products, those would be beyond the scope of this report. However, we hope our recommendations may be useful as a common basis for structuring green finance products.



⁴ RICS, “UK Commercial Secured Lending - Draft ESG Framework”, 3 July 2023.

ESG Risks in Commercial Real Estate Lending

This section analyses key ESG related risks associated with real estate lending, providing the basis for the recommendations in the following sections. The risks presented here should be considered in the whole real estate market context, as they would apply to transactions, lending and valuations. In particular contexts, these risks may be considered more pressing. Some lenders may prioritise differently the risks presented here in line with their own strategies, commitments, assessment of the market or the need to address these issues.

Understanding ESG and Sustainability

The terms “Sustainability” and “ESG” are often used interchangeably within real estate investment, but there are nuanced differences:

ESG relates to the assessment and recognition of environmental, social and governance risks within an investment. These are regarded as “input” considerations into an investment.

Sustainability typically refers to practices which promote long-term value, output impacts. The assessment of an ESG risk should result in a sustainability response to manage the outcome. This forward-looking view can make sustainability challenging to interpret in asset valuation.

This is important for valuations as we identify risks to value or additional value generated from differentiating with the market. We can identify a common set of risks to value, and a way of quantifying those risks in accordance with investor pricing, which may then result in impacts on asset value. Setting out common approaches to both ESG risk management and sustainability-focused practices should clarify how they interact with market value.

For this reason, our recommendations are the same across all assets, from prime urban office assets to secondary regional retail assets so that risks are defined in ways that allow predictable comparability, are verifiable and can be replicated. In time, this common approach may evolve to consider specific impacts to individual asset types as knowledge and understanding develops, according to the nature of investment in that asset type.

A vital consideration is that the market must adopt any approach at scale as rapidly as possible. That means the approach must be applicable across asset classes and provide clear market evidence which can be used within asset valuations. Arguably, the prime end of the market is already well served with existing tools and certifications, but support for secondary assets is lacking, meaning there is greater market uncertainty and reluctance to invest.

Furthermore, the various real estate asset classes have different features and benefits that arise from sustainability, and this should be recognised. Offices have the most developed approaches to sustainability, but applying office-based approaches to other asset classes may result in poor recognition of their material sustainability requirements.

ESG and sustainability related attributes can be categorised in three ways which we comment on, below.



Performance Based

Performance based metrics show how the asset performs in practice, relative to market expectations. These are typically measured against asset benchmarks. Performance is challenging to measure as there must be standard metrics across the market to measure against. The metrics must be independently verifiable and a common basis across the market must be in place to recognise differentiation and relative performance.

A further challenge with sustainability performance-based metrics is the difference between the management of an asset and its physical attributes which are valued. It's possible for good management to result in out-performance or underperformance against the quality of the asset. Underperforming assets may replace management and improve sustainability performance without altering the quality of the asset and the basis of asset value. Furthermore, the way the sustainability performance of an asset is interpreted may vary across the market, unless regulations enforce a common approach.

The NABERS scheme for offices in Australia is an example of where this is thought to be successful⁽⁵⁾. The NABERS scheme provides a common approach to measuring the energy performance of office buildings resulting in a relatively level playing field across the Australian office market. This has arguably resulted in a stronger relationship with market value, we look at NABERS in greater detail in the [Green Building Certificates and Ratings](#) section, below.

Feature Based

Any feature-based approach focuses on the attributes and amenities of the asset which enhance value. One example of these includes voluntary green certifications (e.g. BREEAM or Well Standard), which can make it easier for the market to interpret and attach value to multiple qualities and features of the asset. Other examples can include renewable energy or wellbeing features.

Features can enhance value when market begins to desire them. Feature based value is typically driven by higher achievable net rents and liquidity, and results in a value premium. We look at voluntary green certificates in greater detail in the [Green Building Certificates and Ratings](#) section, below.

Regulations Based

The regulation based approach recognises risks associated with non-compliance, including asset standards and building regulations. A direct example of regulations potentially having an influence on value is Minimum Energy Efficiency Standards (MEES) in the UK, which require commercial buildings to have an EPC rating of E or better in order to be lawfully let (a parallel framework applies to residential properties). Fund disclosure regulations (such as the EU's Sustainable Finance Disclosure Regulations, SFDR⁽⁶⁾) may also impact how investors transact. By mandating a feature or performance requirement, the "feature" or "performance" required can become the basis of a regulations-based approach.

The value impacts of regulations may not reflect real sustainability outcomes, but rather the risks associated with regulatory non-compliance. Compliance may have a sustainability focus, but as regulations are a blunt instrument there is a risk of split incentives or net negative outcomes. We look at EPCs as a regulations-based approach in the [Energy Performance Certificates](#) section, below.

⁵ See <https://www.cbre.com.au/press-releases/one-million-square-metres-of-premium-or-a-grade-australian-office-space>.

⁶ Sustainable Finance Disclosures Regulation (SFDR) in Appendix A: Green Finance Disclosure Regulations.

Climate risks outweigh other ESG risks

Within sustainability and the management of ESG risks, there are a wide range of topics. Some of these may have an impact on asset value, others may affect operations or occupation. Features which promote health and wellbeing likely have an impact on rental income in markets promoting the return-to-work post-COVID19, or social value and community engagement may play an important role in placemaking. However, the management of climate risks is the focus of this report as:

1. Climate risk is a more immediate threat to asset values.
2. There are several performance, feature and regulation based value considerations related to climate risks that can be used to understand how sustainability and ESG risks affect asset values.

This report will use the environmental risks associated with climate and energy efficiency as its focus, but we recognise these are only a part of how ESG and sustainability may impact asset values.

Net Zero and Asset Decarbonisation

The UK has committed to decarbonising by 2050, and the Climate Change Act includes legally binding carbon budgets. The sixth carbon budget, due in 2035, requires the UK to achieve a 78% reduction in greenhouse gas emissions, based on a 1990 baseline. The specific regulations affecting commercial real estate which will enable these objectives is still unclear as the most notable policy, which requires all non-domestic Energy Performance Certificates (EPCs) to be of a B rating or better by 2030, has not yet been legislated.

The commercial real estate market is, to some extent, anticipating future regulations. Many Institutional investors and major listed REITs have established Net Zero policies and adopted Science-Based Targets⁽⁷⁾ to decarbonise⁽⁸⁾. These activities are reflecting investor pressure and tenant requirements to manage climate risks, but also reflect a growing marketplace desire to mitigate the worst effects of climate change. For these reasons, we can assume much of the commercial real estate market will continue to recognise the impacts of climate change and align efforts to address the climate crisis. For this reason, the decarbonisation agenda is the ESG risk most likely to have an explicit impact on asset values.

Financed Emissions

So far, this paper has focused on the ESG risks to the financing of an asset, but lenders may also have corporate risk inherent in lending, through their recognition of financed emissions. These are a part of a lender's corporate carbon footprint and included in their decarbonisation targets. Due to a lender's "arm's length" relationship with its borrowers, management and reduction of these emissions will be a key challenge.

Financed emissions may become a notable influence on lender requirements, under public commitments to decarbonise. While speculation at the time of writing, the pressure to decarbonise financed emissions may provide a stronger driver for lenders than regulatory risk creating market pressure to decarbonise assets.

Lenders may seek access to data that would be used to calculate the greenhouse gas emissions associated with the asset(s) being financed. All operational emissions would be relevant if the building is in use, including both common areas and tenant emissions, even if the tenant procures energy directly from their own supplier. While the sponsor/borrower may consider these emissions Scope 1 and 2, for the lender they would be designated "Scope 3, Category 15 Investments" as the lender is providing finance.

⁷ See [Science Based Targets initiative, companies taking action](#) for the list of companies with declared and validated Science Based Targets.

⁸ See the Recommended Sustainability Evidence for Valuation section where we include a formal definition of what a Net Zero building is as defined by the Science Based Targets initiative.

Under a development loan, the lender would also need to capture the embodied carbon emissions associated with the materials used in the construction or refurbishment of the asset, alongside the direct construction emissions and those relating to transportation of materials to and from the site⁽⁹⁾.

These financed emissions are beyond any scope of a Red Book valuation, as they are a material risk to the lender not to the loan. That said, valuers should be aware that lenders are increasingly focusing on the reduction of financed emissions, which could have implications for their instructions or potentially how buildings are financed, and therefore market expectations.

TCFD: Connecting physical and transition risks to value

The 2017 recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD)⁽¹⁰⁾ relate to how the financial impacts of climate risks should be disclosed by organisations. TCFD⁽¹¹⁾ categorises climate risks into physical and transition risks:

- **Physical climate risks** include notable potential changes in precipitation, water and heat stress, coastal and fluvial flooding. The recommendations request disclosures about the future impact of these events when modelled against investments/exposures.
- **Transition risks** are more market based, and typically include the market requiring greater action on climate, and the impact of regulations on an organisation. TCFD also recognises there are opportunities related to the transition, which may be found with early action, for example capturing a market as regulations change.

CREFCE and AREF believe that these terms are useful for talking about the longer-term risks associated with asset values, and there should be alignment with wider TCFD related strategic considerations. The recognition of longer-term risks may fall outside of RICS governed asset valuations, as they are considering the scale and probability of these risks to future asset value. Instead they can be considered as strategic advice. Valuers and lenders may be made aware of these risks, but they may not be reflected in current market values at the time of valuation.

Biodiversity and Nature

Risks to biodiversity and nature are becoming a key ESG theme. Currently, there are several initiatives which seek to mitigate the devastation of habitats and biodiversity, for example:

1. Biodiversity Net Gain which requires 10% additional biodiversity expansion in new developments⁽¹²⁾.
2. Taskforce on Nature-related Financial Disclosures (TNFD) which seeks to address biodiversity issues in a similar format to how TCFD addresses climate disclosures⁽¹³⁾.

⁹ Note that development projects typically use a different structure to report emissions, using the EN 15978 standard which considers emissions across the lifespan of the building. There are two main differences between EN 15978 and the Greenhouse Gas Protocol: the structure of the emissions and time. EN 15978 considers emissions across different stages of the asset lifecycle (A-D, with "A1-5" being up-front in construction) and the Greenhouse Gas Protocol calculates emissions for a specific period, typically for a year. See UKGBC, "[Guide to Scope 3 Reporting in Commercial Real Estate](#)", 2019 which discusses Scope 3 reporting and RICS "[Whole life carbon assessment for the built environment, 2nd Edition](#)", 2023 which is based on EN 15798. Lenders will report greenhouse gas emissions (including in use emissions) as Scope 3. Typically emissions of up-front development emissions reported in the EN 15798 format (category A emissions) are reported "as built" at the end of the development.

¹⁰ See <https://www.fsb-tcfid.org/>.

¹¹ Taskforce on Climate-related Financial Disclosures, "[Recommendations of the Taskforce on Climate-related Financial Disclosures](#)", 2017.

¹² Natural England, "[Biodiversity Net Gain, An introduction to the benefits](#)", 2022. In September 2023 the UK Government announced the start of the Biodiversity Net Gain regulations was to be pushed back to January 2024.

¹³ Taskforce on Nature-related Financial Disclosures website: <https://tnfd.global/>.

3. The EU Taxonomy (see Appendix A: Green Finance Disclosure Regulations) recognises “Protection and restoration of biodiversity and ecosystems” as one of the six Climate and Environmental Objectives of sustainable finance.
4. The Sustainable Finance Disclosures Regulation (see Appendix A: Green Finance Disclosure Regulations) includes Biodiversity as one of the Principal Adverse Impact (PAI) indicators.

As these develop, the results may have an impact on property values. Landlords should consider biodiversity aspects as potential future risks to value in commercial property.

Alongside this, there is a strong crossover between biodiversity and the wellbeing agenda, as biophilia and access to green space are thought to promote productivity and potentially enhance rental and capital values, though it is not possible to isolate these features as market evidence.

Social Value and Impact

This report focuses on environmental aspects of the ESG agenda, as these have become notably pressing across the real estate market, with the rise of occupier and investor focus, combined with increasing regulations. The social impacts of real estate are also very important but lack the specific and universal focus of climate.

Social value has been defined for public services in the UK in the Public Services (Social Value) Act 2012, which requires all public bodies to look beyond the financial cost of a contract and consider how the services they commission and procure might improve an area’s economic, social, and environmental wellbeing.

In practice, social value is produced by an asset which is well positioned in the community that it serves. How this is perceived to interact with lending is likely to be specific to the lender. How social value affects asset values is not explicitly understood and may become a focus for future consideration.

Controversial Tenants

In some cases, a tenant’s identity, activities or industry may pose reputational risks to the lender. This reflects society’s recognition that the tenant’s social licence to operate is suspect. The lender may also identify risks associated with lending to some sponsors/borrowers based on reputation or identity, but this section will focus on tenants.

These are considered "controversial tenants" just as "controversial investments" are commonly reviewed as an ESG risk in investment in equities⁽¹⁴⁾. Common industries which are included in screening include pornography, tobacco, companies with notable human rights risks and controversial weapons.

Lenders may take a view on the reputational risks associated with lending on assets with tenants that are deemed controversial. The controversial nature of a tenant may evolve over time and can increase or reduce based on social or political events.

Valuers may find the market is sensitive to specific controversies and they play a role in how assets are valued. These may be common across markets, or specific to a given market – for example a controversial tenant in Central London may result in increased negative public exposure to the asset which results in acute negative publicity (or vandalism and related destruction of property), but the same tenant’s operations outside London may not be as exposed.

¹⁴ Taskforce on Nature-related Financial Disclosures website: <https://tnfd.global/>.

Green Leases help manage capex risk

Green leases contain specific clauses to promote landlord and tenant collaboration, for example data sharing or minimum standards across landlord and tenant on green issues. They have historically been challenging to implement due to failures to reach an agreement of terms between parties and have been often limited in their effectiveness. However, as climate regulations develop, so does the need for a formalised approach to managing climate risks which spans landlord and tenant considerations.

The contents of green leases vary depending on the asset type and property characteristics. The Law Society has prepared some guidance⁽¹⁵⁾ in partnership with the RICS, the Building Better Partnership (BBP) and the Chancery Lane Project, which provides a useful basis for establishing Green Leases. The BBP suggests that, at a minimum, a green lease should include an agreement on the sharing of data between parties and a collaborative approach to improving the environmental performance of the asset⁽¹⁶⁾. This may include provisions for the management of energy, waste and water, as well as transport and opportunities to improve biodiversity.

Given the sophistication of ESG related capex risks, Green Leases are a way to establish minimum requirements for how occupiers should operate within their lease, which protects investment in ESG risk mitigation features. They clarify roles and requirements as sustainability and related ESG impacts on values evolve. These are beneficial to landlords as they can protect against risks to value from tenant interventions, and establish requirements for asset operations in line with sustainability objectives. Green leases should include the sharing of ESG performance data so the landlord can ensure the ESG related capex has been deployed effectively, or monitor performance against green or sustainability linked loans.

Presence of green leases or lease clauses could be a consideration for valuers, as it becomes more pressing for landlords to manage risks to climate regulations, investor driven sustainability requirements and decarbonisation programmes.



¹⁵ The Law Society, “[Green Leases and Minimum Energy Efficiency Standards](#)”, 2023, which references the [Better Buildings Partnership \(BBP\) Green Lease Toolkit](#) or [Chancery Lane Project](#) as examples of green lease clauses. At the time of writing, the BBP Green Lease Toolkit was expected to be updated.

¹⁶ See BBP Green Lease Toolkit.

Version one of a journey

The management of ESG risks in lending is complex and will require greater focus as impacts on value become clearer. This report, like the AREF report for Fund Managers, presents the topic at it is today rather than offering a definitive description of what we can expect as regulations, market norms and other transition factors continue to evolve. Our aim is to provide more certainty at the time of publication while recognising that as an industry commercial real estate is going through a significant change at a rapid rate.

Many outstanding challenges emerge from the discussion above:

- How will real asset performance be reflected in lending going forward?
- How will lenders' focus on financed emissions affect their participation in the real estate finance market, and willingness to finance brown-to-green strategies?
- Will biodiversity considerations, possibly presented through the Biodiversity Net Gain regulations, influence sponsor/borrower and lender decisions in the future?
- Is it sufficient for lenders that any social value implications are implicitly addressed in comparables and in the all-risks yield (especially as so many lenders have social programmes associated with their brand reputation)?
- How can collaboration within the commercial real estate market be accelerated to neutralise climate risks appropriately within lending?

Each of these questions, and others, will require greater thought and consideration in the short and medium term. Addressing these questions is not an academic exercise, as they do have real-world implications for the risks associated with real estate investment and lending. These can be regulatory, societal, financial, or linked to evolving market requirements.

Ultimately, lenders use ESG as a risk management framework that should help better articulate non-financial risks within their loans, but increasingly these non-financial risks are mis-named as they can and already sometimes do affect asset value. We hope this guide will support the risk assessment and valuation process within lending to implement a common ESG risk management framework most effectively. However, we expect this to continue to evolve to better articulate the risks and capture a wider range of risks. We are at the end of the start of this journey, rather than the start of the end.



Roles of those managing ESG risk to value in the lending process

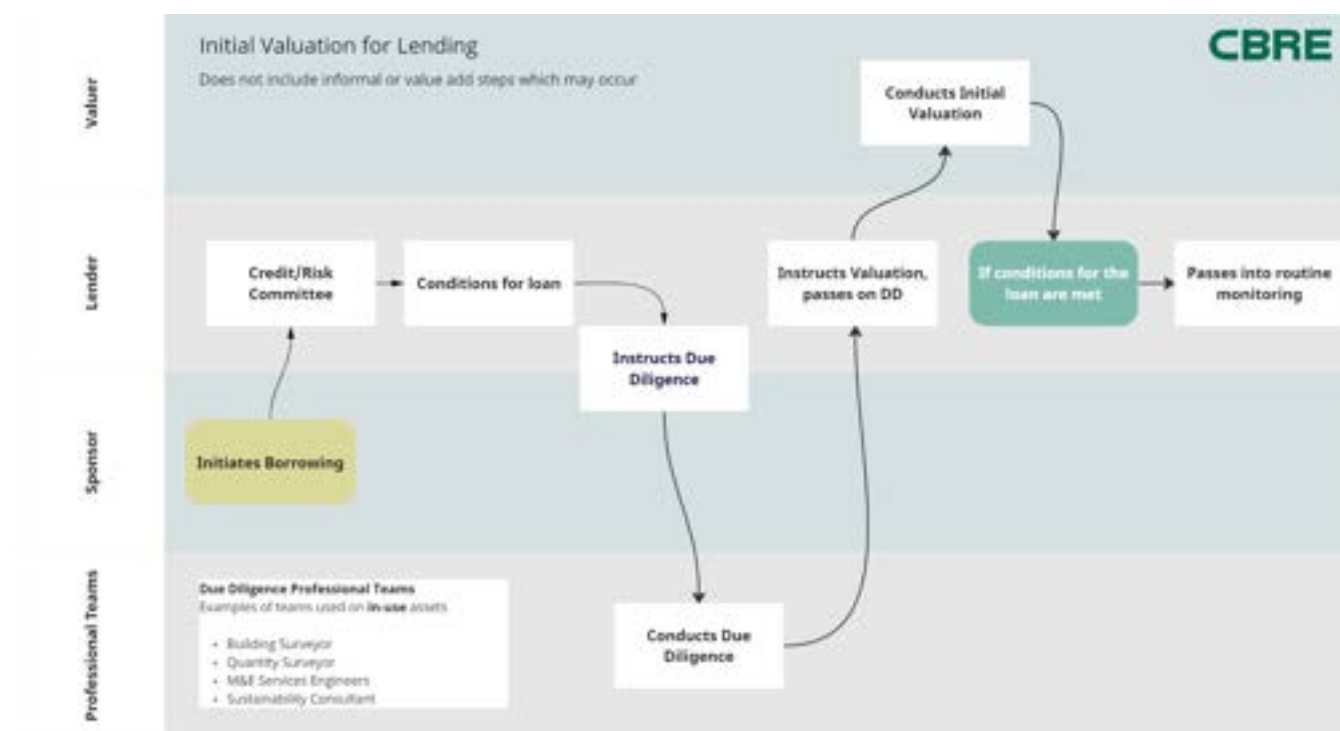
This section specifically focuses on how different parties may, in theory, incorporate sustainability into the valuations and risk assessment functions within a lending process. We recognise that specific engagements will vary but this section should provide a guide to help understand what the various roles should consider. We expect this to evolve in the short and medium term as the integration of sustainability practices matures.

Valuation in Lending

There are two distinct phases in which to manage ESG risks in lending. The first is the initial valuation which has a clear process which results in the lending arrangement and management of risk. There is also the cyclical ongoing loan monitoring which carries on over the course of the lending.

The initial valuation

The initial valuation aims to provide the lender with an understanding of risks to support the underwriting of the financing, so ESG risks are best considered at this stage.



Ongoing loan monitoring

The ongoing loan monitoring can also manage various risks that were identified in the initial valuations process. If there are any green clauses or requirements in the business plan for the lending, the ongoing monitoring will ensure these risks are managed and requirements are met. This can include any green or sustainability linked requirements of the financing, as agreed with the lender.

The sponsor or borrower

In this report, we consider the sponsor (also referred to as the borrower) as the party who is seeking finance for a given asset or portfolio. They have the most detailed understanding of the asset, operations and business planning. Within the initial valuation process the sponsor/borrower provides the appropriate information, either directly or via third parties, for the lender to be satisfied with the management of the risks associated with financing the asset.

There are three important risks within this process to understand regarding the sponsor/borrower:

1. We must acknowledge that risks which the sponsor/borrower presents within the initial valuation process may negatively affect the terms of the lending, so the sponsor/borrower is not incentivised to be transparent or specifically detailed about the nature or level of any risks.
2. ESG risks are relatively new to being considered in lending, and the sponsor/borrower may not have the correct documentation, be experienced in providing this level of detail or in commissioning appropriate parties to obtain the appropriate information.
3. Lenders are culturally tuned to recognise long-term risks and manage them. Sponsors/borrowers are more likely culturally focused on recognising opportunities. So the cultural mismatch between the two parties may lead to different assessments of the same information or miscommunication or misalignment of acceptable outcomes.

The risks above can be managed by clearly requesting an appropriate amount of detail, so the sponsor/borrower understands what is expected and how to present it.

The Business Plan

Where assets do not meet the risk specification for the lending, the sponsor/borrower may include upgrades to the asset which reduce these risks to an acceptable level for the lender. The business plan sets out how the sponsor/borrower will upgrade the asset, and the associated costs.

For example, if the lender requires an EPC of B or better, the upgrade works to achieve this can be included and financed through the loan. The lender may see these upgrade works as a benefit of providing the loan, as they may see the social utility of upgrading building stock as a key part of their own sustainability programmes.

Business plans should set out objectives to improve the asset, including specific targets, and the associated capex or funding required to achieve the outcome. The business plan should be shared with the lender and valuer as a part of the initial valuation process.

To date the expectation is for business plans to understate the costs associated with managing ESG risks. This is commonly because these kinds of costs are relatively new in being required for financing, the market is not as sophisticated at presenting these costs and planning becomes more complex as there may be different ways to manage a given ESG risk.

These risks can have different cost profiles, and there will be mixed opinions on how to prioritise specific upgrades or structure costs. Put another way, there are a wide range of potential ways a sponsor/borrower may address ESG risks leading to an even wider range of how they may be costed, with little certainty, experience, or common approaches across the market.

Adding to this the first risk highlighted above about sponsor/borrower incentives, there is a reasonable possibility sponsor/borrowers may not have assessed appropriate costs to manage ESG risks.

The lender

The lender is seeking to provide financing on terms which are appropriate given the risks. The lender may want to provide incentives for the sponsor/borrower to align with some ESG related objectives, a so-called green loan. More often, a sponsor/borrower who clearly presents a plan for the management of ESG risks is likely to be offered better financing terms.

The lender will have a dialogue with the valuer regarding how the market will perceive the risks to value, using the information developed over the course of the initial valuations, including due diligence materials. The lender may include requirements on lending which are reviewed during the valuation (such as understanding [Financed Emissions](#)), though these requirements may be additional to the valuation and considered strategic advice. The lender should recognise where these are beyond a standard engagement requirement and arrange the collection of this information with the valuer as appropriate.

The valuer

When valuers carry out valuations, they are independently assessing the value of an asset, or a collection of assets, at a given point of time. To make this assessment, many factors may be considered, for example the location, asset quality, configuration and features, relative obsolescence, fire safety due diligence, the tenant(s) covenant, lease structure, and so forth.

To understand the ways sustainability and ESG affect value, valuers need to understand the market for an asset in a given location, including the market participants and what they would be seeking. Ultimately, market value is determined through how market participants are transacting. Sustainability considerations may not be sufficiently recognised by the valuation unless the valuer understands how they have impacted the purchase price in a given transaction. This is specifically important when considering capital expenditure (capex), and how market evidence about ESG risks should be interpreted.

It must be stressed that the valuer's role is to understand the market and reflect the market value at the point in time of the valuation. As we comment below, ESG and sustainability are concerned with long-term risks. These risks may quite appropriately not be considered within transactions which reflect the market value at that time.

The RICS Global Red Book and “Sustainability in Valuations” Professional Standard

The RICS states in VPGA 8 section 2.6 (c), Valuation of real property interests, that valuers should have a working knowledge of the various ways that sustainability and ESG can impact value:

‘While valuers should reflect markets, not lead them, they should be aware of sustainability features and the implications these could have on property values in the short, medium and longer term.’

The RICS has produced guidance in the form of the Professional Standard referenced above which supports RICS Red Book Global Standards VPGA 8 Section 2.6 (c) (vii)⁽¹⁷⁾ with commentary on sustainability and ESG matters:

- Assess the extent to which the subject property currently meets sustainability and ESG criteria,
- Provide a description of the sustainability-related property characteristics,
- Opinion on the relationship between sustainability factors and the resultant valuation,
- Opinion on the potential impact of these benefits and/or risks to relative property values over time.

¹⁷ The RICS consultation on a revised Red Book UK Supplement includes “UK VPGA 1.5 Reflecting ESG and climate-related matters in valuation and financial reporting” which is aligned with the points raised in this paper and highlights the consolidation of ESG and sustainability reporting standards under the International Sustainability Standards Board (ISSB).

These requirements and guidance have been formed for a global audience and can be applied across markets, so valuers must interpret how these requirements apply to a local market.

These factors should be recognised by valuers and reflected in valuations in accordance with the relevant market at the time of the valuation. However, the challenge remains, how to explicitly reflect the impacts of sustainability on value when these impacts have historically been implicit in purchase prices or not factored?

There is a lack of shared adopted standards for assessing sustainability and ESG criteria across the market. The terms ESG and sustainability cover a wide range of activities, which could include social impact, addressing climate change or managing the waste generated from an asset. The RICS Professional Standard also refers to ESG and sustainability related criteria, characteristics, factors and impacts, but as it is intended for a global audience, further UK market definition will support a coherent approach to valuations⁽¹⁸⁾.

The Valuer and ESG risks in the lending process

The valuer plays an important role in the lending process providing a market analysis of the value of the asset and may provide an assessment of risks to value. The Valuer may consider due diligence material such as legal documentation and asset-based technical building surveys alongside market evidence. In this report we suggest common practices of what material may be considered.

Historically, ESG risks were considered a specialist topic beyond the scope of valuations and did not feature in valuation reports. However, as stated above, the evolution of Global Red Book valuation has increasingly included sustainability and ESG as topics for consideration.

ESG Metrics in Comparables

Historically, in common with other property features, sustainability and ESG risks associated with the asset have been reflected implicitly within the valuation. This has been done through the use of ‘comparables’ (comparing the given asset with other assets of comparable quality and characteristics) to assess the value at a specific moment in time. A more explicit approach has been difficult to date, as the basis for comparison of sustainable features has not been standardised, and the market is not explicit about the value attributed to individual sustainability and ESG risks and attributes in any given transaction.

We recommend that valuers use standard market evidence, to the extent that the information is available, in comparables which reflect ESG risks. These should include but not be limited to the metrics outlined in the Recommended Sustainability Metrics section, below. This includes EPCs, Green Certificates such as BREEAM, whether the asset requires fossil fuels for heating, and flood risk, especially where the risks may impact income.

We recommend valuers reflect on these metrics when analysing market evidence and provide commentary. Valuers may provide comment even if the metrics do not reflect any explicit impact on value, stating this fact, as lenders may wish to understand the impact either way.

¹⁸ The RICS recognises the need for jurisdictional guidance and is seeking to update the Professional Standard to reflect this in 2024.

Professional Teams and Due Diligence

Due diligence plays an important role by providing information about risks relevant to the proposed financing, so professional teams may be instructed to review the asset. This may involve new specialisms that review climate risks and potential ways to address and reduce the financed emissions associated with the asset.

Some of these new professional teams will provide information on ESG and sustainability matters which are relevant for the lender and not necessarily directly relevant to a Red Book valuation. These may be risks to the loan or to its refinancing at the end of the loan term. For example, the topic of financed emissions is relatively new and growing quickly, so the severity of these risks in how commercial real estate is financed is not yet entirely clear. If these additional risks are highlighted through the valuer, they should be additional to the valuation report (for example, in an appendix) and be regarded as strategic advice.

We examine due diligence in greater detail below in the ESG and Due Diligence in Commercial Real Estate Lending section.

ESG is influencing the roles in the lending process

As sustainability and ESG risks are increasingly expected to affect asset values, they may be considered by lenders in the context of valuation. This recognition of valuation impact is not only on the initial valuations, but in the requirements in the business plans of the loan, potentially affecting its refinancing.

However, ESG risks are often woven into the quality and fabric of the asset, where it is located and how it is managed. This means all parties in the lending process are likely to want to understand how to assess these risks appropriately. This requires all parties to develop new processes and rely on new sources of expertise to provide a more accurate reflection of the risks as they develop.

As this is a changing environment, these new skills and processes are often being established for the first time. We hope these recommendations support the development of these additional skills and processes, informing the valuation process as appropriate and allowing the valuation community to continue to accurately reflect how the market is impacted by sustainability and how market participants manage these ongoing risks to value.



ESG and Due Diligence in Commercial Real Estate Lending

Due diligence plays an important role in identifying and assessing risks to be incorporated into the loan underwriting process, often in relation to matters that are beyond the technical expertise of the valuer and lender.

Basic requirements

While there are many requirements that lenders may seek to include in due diligence to support their management of risks, the focus of this report is on the risks to value. Due diligence should assess risks over the course of the loan term and ensure any risks to refinancing are addressed in any business planning.

Material risks to value which valuers should be alert to are those consideration of which will provide a better assessment of the physical and transition risks associated with the asset, and the level of capex required to address those risks over the course of the loan, as understood at the date of the valuation.

Frameworks to support due diligence

There are several frameworks that have been established which can be adopted to support the due diligence process. CREFCE produced a guide to climate-related due diligence in May 2021⁽¹⁹⁾. The working group reviewed this document and agreed lenders may find the guide useful to structure due diligence requests, however not all considerations within that guide are material to valuation or the management of risks to value. At Schedule 1, the guide sets out a series of suggested questions focused on relevant metrics. The working group agreed the metrics-related questions about climate change policies and improvements (at section 5 of that schedule), in particular, could be relevant for valuers assessing risks as at the date of valuation for the lender over the course of the loan.

The UK's Better Buildings Partnership (BBP) has developed an "acquisitions toolkit"⁽²⁰⁾ which has historically been focused on how investors acquire assets. An update of that toolkit is integrating lender considerations, making it a useful resource to be considered by lenders in structuring the ESG aspects of due diligence.

Rationale for enhanced services

Lenders traditionally employ audits to understand the state of technical building services and the quality of the asset. While these technical reviews may provide a useful understanding of the quality of the building, they may not be sufficiently detailed to provide accurate capex costs to upgrade the building in line with market expectations.

Lenders may seek enhanced services to assess how the building aligns with a decarbonisation pathway, and a more detailed assessment of the financed emissions associated with the asset. This would review the current state of emissions, helping in the determination of financed emissions (see [Financed Emissions, above](#)), and the capex that it might be appropriate to include in business planning to reduce these emissions to align with the lender's net zero objectives. Such an assessment would support the lender's corporate ESG objectives alongside reducing the transition risks associated with the asset and potential future loss of value when refinanced.

¹⁹ CREFCE Europe, "Climate-related Due Diligence Guide", 2021.

²⁰ BBP, "Acquisitions Sustainability Toolkit", 2017; an update to the toolkit is expected which will make reference to lender requirements.

The future physical climate risks of the asset may also be assessed, particularly if the asset had known localised physical risks such as flood risk. These longer-term physical climate risks would also support the lender's climate risk disclosures as well as providing more understanding of the long-term viability of the loan and any possible risks to refinancing.

The enhanced services noted above require additional expertise and tools to provide the analysis with sufficient rigour and lenders or sponsor/borrowers may expect additional costs. It would not be appropriate to assume that them to fall within the normal scope of a valuation.

Reliance

The rapid evolution of the management of ESG risks in real estate raises an issue around reliance in the lending context. Valuers, like lenders and sponsors/borrowers, are still developing the tools and processes to understand risks to value and assess the quality of information provided within the course of an initial valuation on lending. For example, determining the cost of improving an EPC is not a simple process and there are many options for improving energy efficiency in a building which will have different costs, quality of delivery and technical trade-offs.

Valuers will require specialist input from professional teams if they are to reflect appropriate information in their valuations. Not reflecting input from a clear, reliable source may reduce the quality of analysis and can risk the valuation being outside of Red Book regulation. At the same time, not having this additional information can also pose a risk that the analysis is incomplete and lacks the detail required to perform the analysis, for example the capex assumptions not sufficiently reflecting what would be required to improve EPCs in line with expectations.

Valuers' role within lending can extend beyond the valuation and include strategic advice. As sustainability presents a view of how to mitigate future risks to value, it often presents risks in the future which are beyond the scope of a valuation. However, a valuer may understand and report these risks outside of the valuation (for example, explicitly stated as strategic advice in an appendix) to help the lender form a view as to how to mitigate risks which are not reflected in the valuation itself. If provided outside of the valuation, the need for reliance may be mitigated, allowing the valuer the opportunity to provide the lender with information on potential but unquantified risks. This, however, assumes that the valuer has sufficient expertise at their disposal to provide such commentary.

Lenders who require ESG metrics within their valuation instructions may seek to require appropriate due diligence from specialist teams, which are likely to require additional fees. This will ensure the valuers have appropriate information with sufficient levels of reliance for the valuer to provide a valuation which reflects an expert understanding of the issues on site.

Specialist expertise may be required in, or alongside, the lending valuation process

The due diligence process plays an important role in providing the explicit expertise and detail that valuers and lenders use to assess risks over the course of a financing. The rapid rate of integration of ESG risks, especially climate risks and regulations, into how assets are priced may result in a more explicit understanding of how the asset will be refinanced at the end of the lending term. Greater focus on the due diligence can mitigate these risks by providing greater detail on the capex required to maintain market positioning and asset value.

This may require the lender and/or sponsor/borrower to include more detail in the due diligence process, which can include new skills such as the assessment of transition or physical climate risks. These specialist skills may require additional fees to ensure a high quality of analysis.

Recommended Sustainability Evidence for Valuation

The analysis of asset values relies on site data and market information to inform the impact on asset values. The market evidence data used must be sufficiently widely available to support comparables, and appropriate to assess against market risks. Four sources of market evidence are standard across UK real estate where they can be considered within the analysis of lending. These risks align with typical climate risk to be considered against ESG risk criteria.

Consideration	Type of risk ⁽²¹⁾
Energy Performance Certificates (Minimum Energy Efficiency Scheme compliance in England and Wales)	Transition risk
Green Certificates	
(BREEAM, LEED, NABERS UK, Well Standard)⁽²²⁾	
Localised physical risks (typically flood risk in the UK)	Physical risk

Each of these will be further explored in the following sections.

Comparables and market evidence

Valuers need to understand and reflect the market, including sustainability features and ESG risks. However, in some cases the evidence to support sustainability impacts on values may not be sufficient to reveal any impact on value. We recommend the sustainability aspects and ESG risks noted below should be set out by all market participants when reporting market evidence where it is obtainable. This will provide valuers with more explicit evidence that they can apply consistently in asset valuations. When considering and reporting market comparables to their clients, valuers will then be better able to comment on target buyer priorities for a given asset. In markets where sustainability has an influence on investor or occupier decisions, green building certifications are likely a requirement for prime rents and values.

This may extend beyond the lender, sponsor/borrower and valuer to include agency teams who may also consider the metrics in this section, so that market evidence is considered as standard across the real estate investment process.

²¹ Climate risks as defined by the TCFD recommendations.

²² See the [guidance for the Global Real Estate Sustainability Benchmark \(GRESB\)](#) for a global list of market recognised potential certificates within real estate.

Energy Performance Certificates

Energy Performance Certificates (EPCs) provide a rating which reflects the theoretical, modelled performance of an asset, typically at demised unit level. They do not reflect actual performance achieved and as with any generalised assessment model conducted by independent third parties, may be an inconsistent representation. However, EPCs are very common across the UK and Europe, and are the basis of regulations, specifically the Minimum Energy Efficiency Standards (MEES) in England and Wales. For that reason, EPCs are primarily considered an indicator of regulatory risk exposure and may be used as a proxy for asset quality and/or relative operating costs. The benefits for considering EPCs in valuations are their market coverage, driven by regulations. The absence of an EPC may be noteworthy as a risk.

Due to their wide coverage and place within regulations, EPCs provide a meaningful basis for comparables and risk assessment.

EPCs are variable in quality, a combination of the use of a generalised building model⁽²³⁾ which covers a range of asset types and uses, alongside historically poor-quality control across EPC assessors, use of defaults (rather than actual measurements) in calculations, a lack of audit of EPC calculations and lack of enforcement. Some of these risks will reduce as market participants improve the quality of their EPC instructions due to their growing regulatory importance. Also the EPC supplier market is improving tools and quality of outputs. Market participants are encouraged to invest in the assessment and management of EPCs going forward.

The recommendation reports the accompany EPCs are widely considered to be of limited use but can support an understanding of capex costs. Sometimes recommendations reports can include unlikely suggestions, but the quality of the recommendations can be used to understand the quality of the EPC assessment itself. Poor recommendations may reflect a poor-quality assessment.

Asset owners should keep EPCs up to date and share changes to EPCs with valuers. EPCs are required to be updated every 10 years or when there has been a material change to the asset. This material change could be as minor as LED lighting upgrades.

Recommendations

It is recommended that EPC data is provided at an individual EPC level to valuers, so lenders should encourage sponsors/borrowers or their managing agents, to do that, including the following information:

- Property address and unit information.
- EPC numeric score and expiry dates.
- Floor area, especially if not aligned with specific units already in routine valuations.
- Material risks identified, either in the EPC Recommendations Report or by the sponsor/borrower or managing agents.

It should be noted that EPC numeric score for Scottish EPCs, as well as Non-Domestic EPCs and Domestic EPCs in England and Wales operate on different scales and can be in reverse order.

EPCs risks should be assessed against the following risk bands:

²³ It is also worth noting that EPCs are based on an asset model, and the model and/or calculations of the EPC may be updated. In the summer of 2023, the EPC model was updated for the first time since 2016. The update included a significant change to emissions factors for electricity used within the calculation which could mean that EPCs would rate differently on an asset reviewed before the changes.

Risk	Definition	Description
Green	EPC A and B	Efficient demises under SFDR, aligned with UK policy stated in the 2020 Energy White Paper. Includes EPC C for Domestic EPCs where appropriate.
	Documented exemption with immaterial expenditure	Where the demise is exempt and the rationale is evidenced and there will be no requirement for material expenditure on expiry of the exemption, and the anticipated expiry of the exception.
Amber	EPC C through E	Inefficient demises, compliant with current 2018 version of the Minimum Energy Efficiency Standards (MEES).
	EPC Expired or Soon to Expire	The status of the EPC is either unknown or known to require intervention. The EPC model continues to evolve, and EPC ratings set to expire are unlikely to be of the same rating as when assessed 10 years before.
	Exemption with modest expenditure	Any future EPC expected to be at an A or B rating or a registered exemption where only modest and viable expenditure is estimated on expiry of the exemption and the anticipated expiry of the exception.
	Financial Viability Exemption	Demises have received an exemption based on the Financial Viability test (7 year payback). The capex required to achieve market levels of quality are recognised to not be viable. The market effects of these exemptions are unknown.[1]
Red	EPC F and G	Demises considered sub-standard by the Minimum Energy Efficiency Standards regulations, not compliant to be let under the current Minimum Energy Efficiency Standards, or to have a lease granted after 1 April 2023. Requires immediate intervention.
	Exemption with significant expenditure	Registered exemption where material and significant expenditure will be required on expiry of the exemption and the anticipated expiry of the exception.
	Missing EPCs	Where EPCs have not been assessed or cannot be provided and there is an unknown regulatory risk exposure.

Where EPCs highlight the need for significant expenditure, a payback test (the Financial Viability test mentioned in the table above) can result in MEES exemption. However, this may reflect poorly on the market positioning of the asset, so it may be appropriate to approach such cases with a degree of caution.



Green Building Certificates and Ratings

Green Certificates are dominated by BREEAM and LEED and have been historically important for bundling sustainable features into a marketable badge which can then attract additional rent or capital value, the so-called Green Premium.

Feature based asset quality certificates

Specific green certifications typically dominate a market, depending on the investors and occupiers. In the UK, BREEAM is the most dominant green building certification outside of mandated EPCs. In North America, the LEED is dominant and elsewhere there is a market preferred certification. For example, due to US occupiers playing a major role in the Dublin market, LEED is preferred. Germany (DNGB), France (HQE), Japan (CASBEE) and Australia (Green Star and NABERS) have their own national certifications.

Voluntary green certifications come at a cost and are therefore typically present at the prime end of the market. Green certifications multifaceted with varying levels and are updated over time. For example, BREEAM offer a certification for “New Construction” and “Major Refurbishment” which reflect the sustainability features of the asset, but also “In Use” which are based on different operational criteria. The most common, such as BREEAM New Construction, are certified on the design when it is built. BREEAM has been updated several times over its life to reflect the evolution of sustainability in buildings. However, this means a BREEAM Very Good building built in 2010 will have different credentials from a Very Good certified building completed in 2020. This is also true of the other certifications.

Green certifications typically operate on a scale, depending on the scoring achieved. Certain specific metrics may be required, but other aspects will be elective with more features resulting in a greater achievement on the scale. This means a BREEAM Very Good is a very different building from a BREEAM Outstanding from a sustainability perspective. It also means the credits achieved, and therefore the sustainability specification, can vary a great deal within two comparable BREEAM Very Good assets. As we have noted, climate risks are a focus for how sustainability is considered in valuations, but credits associated with climate risks make up a small proportion of what is required for BREEAM ratings.

Performance based certificates

An industry initiative, convened by the Better Buildings Partnership⁽²⁵⁾, introduced NABERS to the UK market, with the UK Government expressing support⁽²⁶⁾. The challenge for the market is how to retrospectively certify existing buildings to these schemes at such a scale as to provide sufficient market evidence of a relationship with market value, in the shortest period possible. As of summer 2023, only three buildings had been certified to NABERS UK.

A potential alternative is to use the existing Display Energy Certificate (DECs) scheme which has been operating in the UK for as long as EPCs, starting in 2008. These have been mandated only on public buildings, including universities and government offices. The private sector has explored the use of DECs, but only implemented the scheme in limited pilots, but between public and private buildings there remains a significant sample of existing certificates that might be used as market evidence.

Not all certifications impact value; there must be a notable demand in the market for the certification with a related scarcity of supply of it. A relatively unknown certification, even demonstrating high quality sustainable features, may not impact value any more than the features it represents.

²⁵ The initiative included the BCO, BPF, CIBSE, BSRIA, RIBA, RICS and UKGBC alongside the BBP.

²⁶ At the time of writing, the consultation has not been replied to, and it is unclear if any such scheme is in the works.

Recommendations

Sponsors/borrowers should provide details of any certifications stating the date and version of the green certificate (or, if the certification has not yet been achieved, the status and/or target). This should be provided to the valuer for consideration during the valuations process.

Localised physical risks

Apart from the risk of damage and lost access/operations of the asset, flood risks could affect operating costs through insurance premiums, or become unattractive to investors or occupiers as climate events become more frequent. Physical risks can affect exit strategy, liquidity or carry other long-term investment risk⁽²⁷⁾.

Climate risk reporting under the TCFD recommendations include modelling macro physical risks such as heat or water stress. While these may be important, asset value will reflect the risks that the market recognises. As noted above in relation to TCFD, long-term physical risks which are dependent on future changes in climate may be a consideration for the investment strategy of an asset without necessarily affecting RICS governed market value today⁽²⁸⁾.

In the UK, the most material localised climate risk is flood risk and assets lower in elevation and closer to water may be at increased risk. In other countries, there may be other risks such as wildfires or tornados where risks of higher frequency events may vary across the market.

When assessing flood risk, the granularity of the data is important. Analysis of flood risk should use localised risk maps, such as the Environment Agency Flood Risk maps, to determine the relative risk within the market. Flood defences or flood management plans may also be present and could be considered.

Lenders may find such lower resolution, long-term flood risk analysis helpful at targeting their lending exposures towards more flood and physical risk resilient areas, while avoiding exposure to locations with higher risk of flooding. The role of the valuer is to reflect the impact on value of the specific risk to the asset in alignment with the market. So localised standard flood risk maps should be considered sufficient to identify that risk within the relevant market.

Recommendations

Flood risk has historically been considered within valuations. This should not change in considering the following, which should be provided by the sponsor/borrower, but may be conducted by the valuer using Environment Agency tools (or similar):

- Summarise known flood risk in the area, to include river, coastal, surface and storm, that could impact the property, and any evidence that the property has been previously damaged or impacted by flooding.
- Summarise any flood risk defence measures in the area that could mitigate risk and/or property flood resilience measures that have been implemented at the property.
- Note current or future flood risk that has been identified by any available environmental/flood risk audit.
- Note long-term physical risks if provided by the sponsor/borrower or in due diligence.
- Reflect if insurance is obtainable on standard terms.

²⁷ United Nations Environment Programme Finance Initiative (UNEP FI) and Henley Business School, "[Climate Risk & Commercial Values: A review and analysis of the literature](#)", 2021.

²⁸ Though this may evolve in the future as more market participants consider long-term risks in due diligence.

Fossil Fuels: Emissions and Heating

Most buildings in the UK rely on fossil fuels such as natural gas for heating. Fossil fuels can also be used for cooking, for example in hospitality. Sometimes buildings can have backup generators on site, and assets such as petrol stations store fossil fuels on site for distribution. These expose different types of risks to lenders, some of which may be material.

The risks associated with the burning of fossil fuels to heat or perform the operations of the site are material from a decarbonisation perspective. Lenders should be aware of assets that require fossil fuels for their heating or operations. There is an important link with how lenders report their financed emissions and decarbonisation efforts.

Storing fossil fuels on site for use or distribution (for example oil for heating, diesel for backup generators or petrol for distribution) should be noted in disclosures under the EU's Sustainable Finance Disclosures Regulation (SFDR) and while many lenders may not be exposed to these regulations, they may be important considerations if the debt may be distributed to other parties which are.

Recommendations:

Lenders may require reporting on the fuel needed for heating or site operations, or acknowledgement of any fossil fuels stored on site as a part of valuations reporting.

Proposal for a category of buildings with managed climate risks

The current working definition of a net zero building in operation, as set out but the Science Based Targets initiative and quoted by the World Green Building Council is:

When the amount of carbon dioxide emissions associated with building operations on an annual basis is reduced (highly energy efficient and fully powered from on-site and/or off-site renewable energy sources) to a level that is consistent with reaching net zero at the global or sector level in 1.5°C pathways. Any residual emissions that remain unfeasible to eliminate should be neutralised through carbon removals⁽²⁹⁾.

It is difficult to apply this definition in relation to current market pricing as it relies heavily on how energy is used within the building, typically by the tenant or through the management of the asset; and may not reflect the quality of the asset itself. The Urban Land Institute has set out new indicators⁽³⁰⁾ that may become adopted in assessing net zero and transition metrics in real estate but rely on complex information which may be challenging to acquire or gain appropriate reliance on. These data are not commonly available in the reporting of market evidence or comparables. While common practice may evolve to include such data, we also must acknowledge the time it will take for developing the skills to manage these new indicators to the rigour required for valuations reporting.

In the interim, we believe a simplified, interim definition could provide some market clarity, guiding it towards net zero. This new definition is not a net zero building but can help to manage transition risks and clarify the direction of travel. Importantly, it draws on existing indicators noted above which should be readily available and can be put into practice immediately.

We propose a temporary classification for real estate for assets which:

1. Have no EPCs below B.
2. Have no fossil fuels on site, and do not require fossil fuels for their operation (including tenant areas).
3. Have no present localised physical risks, or where such risks are present, it can be shown that these risks are sufficiently managed.

²⁹ Science Based Targets initiative, "[Foundations for Science-based Net Zero Target Setting in the Corporate Sector](#)", 2020.

³⁰ ULI, "[C-Change: Transition Risk Adjusted Valuation](#)", 2023.

This classification would be temporary until an appropriate way of consistently demonstrating the building is net zero is at sufficient scale to be considered in market analysis. This is not a net zero classification, nor does it seek to replace one. However, we present this as a way of moving the market towards assets which can demonstrate potential energy efficiency (in the form of the EPC), the removal of fossil fuels and the present management of physical climate risks.

This temporary classification does not attempt to reflect performance attributes such as the energy use intensity; similarly, embodied carbon would have to be considered separately. However, while assets which meet this definition are not net zero, all net zero assets would likely have to meet this definition, allowing it to operate as a bridge towards better market clarity and practice.

While there may be issues with this definition such as the quality of EPCs, it can mobilise the market to consider asset upgrades which improve the energy efficiency of the building and removal of fossil fuels.

Recommendations

Lenders may consider recognising a classification for buildings that have the combination of EPC B or better, lack any form of fossil fuels for the heating or operations of the site, and do not exhibit, or have sufficiently managed, any localised physical risks (such as flood risk).

We are at the start of the ESG measurement journey

Lenders will require greater market evidence of sustainability impacts to manage risks in the lending process. The more coherence the market has in the evidence it uses to assess the quality of lending and refinancing risks, the faster the market will be able to respond to how sustainability impacts value in practice.

The metrics provided here are simple and commonplace enough to be applicable to every commercial building and be considered in market comparables and analysis. While lenders may require additional information to manage specific risks to asset value or corporate sustainability programmes, the evidence in this section can reliably be considered within a Red Book valuation, reflecting the extent the market is pricing such factor.

The proposal for categorising buildings with managed climate risks can provide a simple but useful way of tracking the potential for an asset to decarbonise, while not requiring specialist analysis or additional data collection. This temporary classification could support the transition towards more demanding net zero certifications or standards that are currently difficult to evidence or achieve for the large majority of existing buildings.



Capex Costs & Asset Transition Plans

The real estate market is incorporating climate risks, specifically transition risks, at a rapid rate. This is reflecting a combination of occupier, investor and lender requirements and increasing regulation. The speed at which real estate is adjusting to incorporate these complex considerations requires an explicit focus on how capex costs are recognised in valuations.

These costs could be a material risk to market value and valuers may consider this capex and the impact on asset values as appropriate.

ESG related capex will vary significantly across assets making this a sophisticated challenge for sponsors/borrowers, lenders, and valuers to consider. Most assets will be impacted significantly and the uncertainty over these costs is high. This is because case studies of successfully transitioned assets are not commonplace, and many asset owners and valuers are recognising these costs for the first time.

Furthermore there are different routes to improving energy efficiency, decarbonisation and sustainability, and two seemingly similar buildings may require significantly different approaches which will result in combinations of tangible and intangible benefits. This uncertainty will perpetuate for the short term, as the market properly incorporates these factors into asset plans and pricing.

The working group has been clear that while these costs require specialist input, as capex costs, they are no different from other costs requiring consideration to align an asset to regulations and market conditions. Sponsors/borrowers, lenders, and valuers should resist focusing on them as ESG-specific costs. For clarity in this report we have called them capex related to ESG risks to be specific about what we are considering, but in valuations these are considered in the same way as any other costs.

Sponsors/borrowers should have an understanding of capex costs and the business plan for delivering them. These should include those costs relating to ESG risks. The valuer should be provided with any planned works for the asset, or any capex proposals. These costs should reflect the investment strategy of the asset and the needs of the most likely buyer and tenant to maintain or enhance market value.

Poor positioning, in general, can result in accelerated depreciation as market requirements evolve. Positioning to mitigate ESG risks, especially regulations but also occupier or investor needs, are a notable example of this. Capex costs prepared by asset owners should reference ESG requirements.



The RICS Professional Standard⁽³¹⁾ states:

“It is accepted that in certain circumstances, and subject to their experience and competence, valuers may need to make professional judgements around capital expenditure cost estimates. This will depend on the nature of the asset, the purpose and basis of valuation and the details of the specific instruction.”

While it may be beyond RICS requirements, we recommend valuers have at least an approximate understanding of whether the costs provided are realistic. Where capex is not provided, the valuer should raise the risks of ESG related capex with the lender. The valuer should state how the asset or portfolio should be positioned in line with market expectations and the urgency of these improvements.

The valuer should not be considered as a reasonable source for either carrying out or reviewing cost assessments, as they do not have specialist skills required to assess capex and it is not within the scope of a Red Book valuation to be able to undertake this level of analysis. However, they must work with the sponsors/borrowers, lenders, and appointed specialists to reflect risks identified, their costs and any resultant impact on valuations.

Types of capex which may be considered

Capex to manage physical risks to the asset

These costs may reflect any potential physical damage to the asset which is related to weather or climate. This may include short-term localised risks, but some lenders may seek to consider longer-term climate risk analysis, though this would be beyond a valuation and considered strategic advice. These costs may include flood resilience (or resilience against localised physical risks) or to enhance resilience in line with TCFD reporting or Transition Plans.

Presence of TCFD analysis or transition plans for the asset. Valuers are likely to lack the expertise to interpret the quality of a TCFD scenario analysis or Transition Plan but may consider the results and recommendations against any capex plans.

Capex to improve the ESG qualities of the asset

This capex is to improve the features of the asset and align with market expectations, most likely to manage transition risks, with the following examples:

- EPC compliance
- Energy efficiency improvements
- Onsite renewables
- Operational Green Certificates i.e. BREEAM In-Use or NABERS
- Net Zero or decarbonisation pathways

A key metric for managing this capex is reporting the regulatory and market risks associated with EPCs. Valuers should report the EPCs, and related risk recommendations aligned with the EPC Risk Table and use these against market comparables. However, asset business plans may include investment in other features to improve the asset quality and align with current or anticipated market expectations.

Valuers may interpret the value impact of capex plans as they align to market requirements. EPC and Net Zero capex should only be included to the extent that the most likely tenant or investor would require it. Conversely, while valuers should not be considered a reasonable source for cost assessments, they may question if the capex is sufficient to meet market expectations. Valuers may be instructed to report on a special assumption that the capex is carried out, where appropriate.

31
ICS Professional Standard, p. 22.

Lenders may recognise some features which are anticipated to be required by the market or regulations to maintain market value in the future, with a view to mitigating refinancing risk. For example, the market may still be learning to interpret how net zero alignment is reflected in value, but lenders may expect this risk to increase over the course of the loan and seek capex and business planning to align with net zero. This would be over and above today's market expectations, but strategic advice recognising reasonably anticipated market requirements over the coming years would be appropriate. Valuers may be instructed to consider a special assumption within a valuation to address this potential additional capex, as appropriate.

Asset Business Plans

Business plans should consider the tenant and lease structure and the ability for the borrower/sponsor to deploy the required capex and implement the changes required to keep the asset in line with market expectations.

Valuers may provide strategic advice in the phasing of this capex with the tenancy schedule, and could note any misalignment. Valuers may comment on the presence or lack of green leases in relation to capex plans or may present green leases or MOUs as a risk management benefit.

The effect on value from ESG related capex

Historically, sustainability in the built environment has focused on creating additional value through best practices and additional sustainable amenities. These added features, certification processes and additional costs, with a view to increasing rental and capital values, result in what has historically been called a "Green Premium"⁽³²⁾.

The UK has committed to be Net Zero by 2050⁽³³⁾, which means the UK commercial real estate market must become net zero by that time. As the UK's net zero commitment has been made law through the Climate Change Act⁽³⁴⁾, it follows that policy and regulation will continue to develop to ensure that different parts of the economy, including real estate, align with this objective.

These additional requirements on real estate are likely distinguish assets that are net zero-aligned from those that require the capex to meet these objectives. We can expect occupiers and investors to increasingly require real estate that meets these objectives, accelerating the depreciation of those assets that do not. This results in the "Brown Discount", which will likely be guided in part by the capex required to align the asset to regulations and market positioning.

As the capex required is to meet the requirements of the most likely buyer, tenant or investor, the valuer plays an important role in reflecting the current needs of the relevant market. This is made more complex by the rapidly evolving nature of ESG and sustainability requirements, which is not uniformly recognised or understood across all market participants.

³² The RICS provides a global overview of how the investment in green features, or lack thereof, may affect values in the [2022 RICS Sustainability Report](#).

³³ Department for Business, Energy & Industrial Strategy, "[Net Zero Strategy: Build Back Greener](#)", 2021.

³⁴ Climate Change Committee, "[A legal duty to act](#)", accessed January 2023.

Conclusion

At the time of writing, 2023 was anticipated to be the globally hottest year on record, while the eight warmest years to date have been since 2015. Summer 2023 saw a sustained period at 1.5C above the pre-industrial climate. This was also a year when we saw many of the physical effects of global warming with forest wildfires, flooding and storms. These physical effects are impacting our economy through the cost and availability of insurance, inflation caused by restrictions on global trade, climate related migration and more.

In commercial real estate, the management of ESG and climate risks have become more prominent in how investors and lenders consider asset value. This is alongside increasing requirements from stakeholders and regulators to report on emissions and decarbonise. CREFCE and AREF believe this evolution will continue as a permanent feature of the commercial real estate market.

Lenders can have a catalytic impact on the real estate market and can accelerate decarbonisation efforts if climate risks are recognised and managed within commercial real estate loans. As lenders provide finance on buildings across the market, their reach can be transformative in how we integrate sustainability activities in the buildings they finance, especially beyond the prime part of the market where institutional investors and occupiers are already focused on the net zero agenda. This would address longer-term risks associated with the buildings which underpin secured lending and therefore improve the security of the finance.

The practice of considering ESG and climate risks and the resulting sustainability related activities will become more prevalent in commercial property. It will be integrated into more of our responsibilities and technical analysis of assets. Real estate professionals need to adapt to this and develop the skills to understand these risks and activities. Doing this will improve how our buildings operate, reduce their impact on our planet and improve how they interact with the community and society. It will improve commercial real estate as an investable asset class, reducing the risks associated with owning, operating, and financing buildings.

Part of this evolution is the need for more market alignment in assessing how sustainability is considered in commercial real estate, to provide clarity and certainty for the commercial real estate financing market, especially on larger or higher value assets and portfolios. This report seeks to draw together a common sense baseline of how sustainability risks and features can be articulated in asset valuations, and how to approach capex considerations.

The valuer has an important role to play. That role may be limited to a specific focus in reflecting market value at the time of the valuation, as governed by the Global Red Book. However, the valuer's role in understanding how ESG risks are considered by market participants unlocks the potential for valuable strategic advice to be provided to lender clients. While this is outside a valuation, we would argue this additional advice is an important and growing responsibility for the valuation profession.

We hope this report will have a short shelf-life as sustainability and ESG in real estate continue to evolve in line with changing regulations and market requirements of lenders, investors, and sponsors/borrowers, and the growing sophistication of how sustainability is interpreted in asset value. We hope to see new and better ways emerge for articulating the value of sustainability features in real estate as the market responds to climate and other ESG risks. This will represent progress which we hope this report supports.

Appendix A: Green Finance Disclosure Regulations

UK Sustainable Disclosure Regulations (SDR) and UK Taxonomy

In October 2022, the UK's FCA consulted⁽³⁵⁾ on a package of disclosure requirements (SDR) for the investment industry to reduce risks of greenwashing and provide transparency on ESG-related investment claims. At the time of writing, the policy statement on SDR was still awaited, so it seemed likely that the proposed June 2024 implementation date may be delayed.

The SDRs are expected to have structure and requirements which are not dissimilar to SFDR, though the consultation appears to have made some attempts to address some of the problematic definitions and challenges of SFDR.

As with SFDR, the SDRs are expected to provide greater clarity on how investment products define sustainable outcomes within investment strategies and reporting. The UK is also preparing its own Green Taxonomy. However, the effect of the SDRs and UK Taxonomy on lending and the valuation of assets to support lending is unclear and may be included in a future update of these recommendations.

EU Sustainable Finance Disclosures Regulation (SFDR)

The Sustainable Finance Disclosures Regulation (SFDR) was introduced by the EU on 10 March 2021 with the purpose of helping institutional asset owners and retail clients understand, compare and monitor the sustainability characteristics of investment funds by standardising sustainability disclosures.

Effectively, SFDR requires reporting at entity (company) level and product level. SFDR distinguishes between three types of product classification and disclosure requirements (Article 6, Article 8 and Article 9) which are defined by reference to the level of sustainability ambition of the underlying investments.

Principal Adverse Impact Indicators (PAIs)

The Principal Adverse Impact indicators (PAIs) are a set of indicators defined by the EU to assess adverse sustainability impacts of investment decisions. The PAIs are prescribed and defined in SFDR for different asset classes. Across three "tables", there are 64 indicators, with methodologies defined in varying detail in the regulation. At the time of writing, only ten indicators had been defined for real estate.



Source	Topic	Indicator	Description
Table 1 (Core PAI indicators)	Fossil fuels	17. Exposure to fossil fuels through real estate assets	Share of investments in real estate assets involved in the extraction, storage, transport or manufacture of fossil fuels
	Energy efficiency	18. Exposure to energy-inefficient real estate assets	Share of investments in energy-inefficient real estate assets
Table 2 (Additional climate and other environmental-related indicators)	Greenhouse gas emissions	18. GHG emissions	Scope 1 GHG emissions generated by real estate assets Scope 2 GHG emissions generated by real estate assets From 1 January 2023, Scope 3 GHG emissions generated by real estate assets Total GHG emissions generated by real estate assets
	Energy consumption	19. Energy consumption intensity	Energy consumption in GWh of owned real estate assets per square meter
	Waste	20. Waste production in operations	Share of real estate assets not equipped with facilities for waste sorting and not covered by a waste recovery or recycling contract
	Resource consumption	21. Raw Materials consumption for new construction and major renovations	Share of raw building materials (excluding recovered, recycled and biosourced) compared to the total weight of building materials used in new construction and major renovations
	Biodiversity	22. Land artificialisation	Share of non-vegetated surface area (surfaces that have not been vegetated in ground, as well as on roofs, terraces and walls) compared to the total surface area of the plots of all assets

18. Exposure to energy-inefficient real estate assets

This relates to the share of investments in energy-inefficient real estate assets. This calculation highlights:

- Buildings which do not have a Primary Energy Demand (PED) which meets the Net Zero Energy Buildings (NZEB) definition in the EU's Energy Performance in Buildings Directive which came into force on 31 December 2020 ("a" in the equation below) or,
- Buildings which are EPC C or below before the 31 December 2020 ("b" in the equation below);
- As a function of the total value of real estate which should abide by the EPC or NZEB rules ("c" in the equation below).

$$\frac{(a + b)}{c}$$

This relates to the [Energy Performance Certificates](#) metric shown above. Note the UK has not commonly aligned with the NZEB criteria. UK EPCs do have a Primary Energy Demand (PED) indicator on them. This isn't commonly referred to in the market, but it would be possible for lenders to request this additional detail.

17. Exposure to fossil fuels through real estate assets

This relates to the share of investments in real estate assets involved in the extraction, storage, transport or manufacture of fossil fuels. In real estate this has generally been interpreted to apply to petrol stations where fossil fuels are stored on site. It would be relevant to our proposed interim classification (see [Fossil Fuels: Emissions and Heating](#), above).

Additional PAIs

Lenders may consider the other "Table 2" additional factors, but these are not linked with indicators which we have established as standard for valuations. These are typically [Performance Based](#) metrics, which we discuss in the [ESG Risks in Commercial Real Estate Lending](#) section above. While lenders may seek to recover this information during asset due diligence, it would be additional to those which would be considered within a Red Book valuation, though this may evolve in the future.

Significant Contribution or Do No Significant Harm (DNSH)

The SFDR sets out a framework for asset level objectives to declare criteria which contribute to sustainable objectives. These can be set by the reporting party and reported under SFDR. These are not considered in this paper and lenders may have Significant Contributions on which they may require additional information, but this process would be beyond the requirements of a Red Book valuation.

There are also "Do No Significant Harm" (DNSH) requirements to ensure the investments do not adversely impact other indicators, namely the PAIs noted above, but also OECD Guidelines for Multinational Enterprises⁽³⁶⁾ and the UN Guiding Principles on Business and Human Rights⁽³⁷⁾. Lenders and valuers may choose to use this framework to define any adverse impacts in due diligence. These are not specific to real estate but may be applied in screening sponsors/borrowers or tenant activities for reputational risks (see [Controversial Tenants](#)).

EU Taxonomy

The EU taxonomy came into force on 12 July 2020, and is a classification system that defines criteria for economic activities that are aligned with EU sustainable finance objectives and the net zero trajectory by 2050. It is a key part of the EU's sustainable finance framework and has been developed for market transparency and to reduce risks of greenwashing. It aims to direct investments towards sustainable economic activities in line with the European Green Deal objectives.

It sets out common definitions of economic activities which can be considered sustainable by setting out six climate and environmental objectives and four overarching conditions that an economic activity has to meet in order to qualify as sustainable. The objectives are:

- Climate change mitigation
- Climate change adaptation
- Sustainable use and protection of water and marine resources
- Transition to a circular economy

³⁶ OECD, "OECD Guidelines for Multinational Enterprises on Responsible Business Conduct", 2023.

³⁷ United Nations Human Rights, "Guiding Principles on Business and Human Rights", 2011.

- Pollution prevention and control
- Protection and restoration of biodiversity and ecosystems

The overarching conditions are that the activity must:

- Make a substantial contribution to at least one environmental objective
- Do no significant harm to any of the other five environmental objectives
- Comply with minimum safeguards: adherence of the investee company/or underlying real estate investment to OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights (aligned with the DNSH of the SFDR, see below)
- Comply with the technical screening criteria set out in the Taxonomy delegated acts.

There are seven real estate-specific activities for which there are available criteria to measure Taxonomy alignment against, including:

- Acquisition and ownership of buildings
- Construction of new buildings
- Installation, maintenance, and repair of charging stations for electric vehicles in buildings
- Installation, maintenance, and repair of energy efficiency equipment
- Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings
- Installation, maintenance, and repair of renewable energy technologies
- Renovation of existing buildings

In practice, the EU Taxonomy typically applies to the commercial real estate industry in relation to: the Acquisition and ownership of buildings; the Construction of new buildings; and the Renovation or existing buildings. The most relevant objectives are:

- Contribution to climate mitigation: the asset must meet the ‘substantial contribution’ criteria and ‘do no significant harm (DNSH)’ criteria. The substantial contribution criteria for climate mitigation typically depend on the energy efficiency of buildings, and the certification, measurement and monitoring of this (other DNSH criteria around climate adaptation, water, waste, pollution prevention and biodiversity will also be relevant).
- Contribution to climate adaptation: the asset must meet the ‘substantial contribution’ criteria and ‘do no significant harm (DNSH)’ criteria. The substantial contribution criteria for climate adaptation typically depend on the physical climate risk assessment under suitable climate scenarios, along with specific climate risk vulnerability assessments. The DNSH criteria are typically focused on climate mitigation elements (around energy efficiency, typically similar to the requirements of the climate mitigation pillar), along with water, waste, pollution prevention and biodiversity.

Lenders may seek to address EU Taxonomy criteria in their lending but reporting against them may be outside the requirements of a Red Book valuation. They may seek to capture this information during the due diligence and valuers may find the information may support the valuation of the asset in establishing a current or future risk to value. However, like [Financed Emissions](#) (see [ESG Risks in Commercial Real Estate Lending](#) or SFDR disclosures (above)), these are reporting requirements which reflect the investment strategy of the lender or sponsor/borrower.

Appendix B: Glossary

BREEAM

The Building Research Establishment's Environmental Assessment Method— is a leading sustainability assessment method for master planning projects, infrastructure and buildings. BREEAM certification is an internationally recognised scheme.

Brown Discount

Brown discount refers to any negative differential in a valuation metric derived specifically from poor sustainability credentials, such as high emissions or necessary capex to meet legislative requirements.

Climate Risk

Climate risk refers to risk assessments based on formal analysis of the likelihood, consequences and responses to the impacts of climate change and how societal constraints shape adaptation options.

CRREM

CRREM is the Carbon Risk Real Estate Monitor, widely considered to be the industry standard for decarbonisation pathways in the commercial real estate investment market. It is used to assess stranding horizons based on Greenhouse Gas Intensity.

Embodied and Operational Carbon

Embodied carbon refers to the emissions released during the creation of a product or asset, such as the emission of the concrete that goes into constructing a building.

Operational carbon refers to the emissions released from the running or sustaining of a product or asset, such as the fossil fuels burned to create electricity to light a building.

ESG

ESG is an investor analysis framework for recognising non-financial environmental, social and governance risks. The term is relevant to all forms of investing. Note that governance risks are typically corporate issues (for example board diversity or executive remuneration) and may be felt to be less applicable in the analysis of commercial property.

EPC

The Energy Performance Certificate is an asset rating system which aims to standardise the theoretical energy efficiency of buildings. They are typically per demise. There are different rating scales for domestic (residential) and non-domestic (commercial) property. There are separate EPC rating systems in Scotland and Northern Ireland. EPCs were established by the EU's Energy Performance in Buildings Directive, so all EU countries have implemented EPCs, albeit national frameworks and ratings can vary considerably.

EU Taxonomy

The EU taxonomy for sustainable activities is a classification system established to clarify which investments are environmentally sustainable, in the context of the European Green Deal. The aim of the taxonomy is to prevent greenwashing and to help investors make greener choices. See [Appendix A: Green Finance Disclosure Regulations](#), above.

Financed Emissions

A category of Scope 3 emissions defined by the Greenhouse Gas Protocol that refer to the emissions associated with investment or finance. These would be the emissions associated with the assets which lenders are securing their finance against. Lenders would likely include these emissions within decarbonisation targets, so will seek to calculate, report, and reduce them.

Green Certificates

Certifications such as BREEAM or LEED which aim to provide an overview of green features within a building.

Greenhouse Gas Protocol

The "accounting standard" for calculating greenhouse gas emissions (aka carbon footprints). The Greenhouse Gas Protocol is used for reporting emissions, categorised as Scope 1 (direct, such as natural gas for heating), Scope 2 (indirect usage, such as electricity) and Scope 3 (value chain, where the Scope 1 or 2 is reported by another party, such as emissions from tenant purchased energy).

Green Lease

A lease that incorporates clauses whereby the owner and the occupier undertake specific responsibilities/obligations with regards to the sustainable operation/occupation of a property, for example: energy efficiency measures, waste reduction/ management and water efficiency, and related data sharing.

GRESB

The Global Real Estate Sustainability Benchmark is a global ESG benchmark for real assets (real estate and infrastructure), providing validated ESG performance data and peer benchmarks for investors and managers to improve business intelligence, industry engagement and decision-making.

LEED

Leadership in Energy and Environmental Design, governed by the US Green Building Council, is the American counterpart to BREEAM, and the most widely adopted green certification in the world. It is relevant to new construction, interior fit-out and operation and maintenance. Ratings are Platinum, Gold, Silver or Certified.

Localised Physical Risks

Physical risks to the asset such as flooding. The term “localised” has been added to note where the risks may notably vary within a given market (for example, a city). Most defined physical climate risks (such as water stress) would apply more or less uniformly across a market and not have any specific implications to a building compared with another building in the same market.

Minimum Energy Efficiency Standards (MEES)

Regulations in England and Wales which impose minimum standards of energy efficiency in buildings based on the EPC. As of April 2023, MEES requires any demise of non-domestic property with a lease in place to have an EPC of E or better.

NABERS

The National Australian Built Environment Rating System – created in Australia & New Zealand. It is a sustainability rating for the built environment which focusses on in-use energy performance and provides an annual 6 star rating. NABERS was introduced to the UK in 2020 as NABERS UK.

Net Zero

To reduce greenhouse gas emissions in line with limiting warming to 1.5°C, and to balance any remaining emissions with carbon dioxide removals. For commercial real estate this means shifting to all electric energy, powered by renewable sources, and reducing usage in line with the asset's share of forecasted green energy. See a formal definition in [Recommended Sustainability Evidence for Valuation](#), above.

Offset

Offsets refer to carbon offsetting – It is the process whereby a company or individual can purchase Carbon Credits in order to offset their unavoidable emissions. A criticism of the offsets market is that it is not regulated, and the offsets being purchased can be unreliable and vary in price considerably.

Paris Agreement

The Paris Agreement, often referred to as the Paris Accords or the Paris Climate Accords, is an international treaty on climate change, adopted in 2015. It covers climate change mitigation, adaptation, and finance.

Science Based Targets initiative (SBTi)

A set of science-based goals developed to provide a clearly defined pathway for companies to reduce greenhouse gas (GHG) emissions, helping prevent the worst impacts of climate change and future-proof business growth. An emissions reduction target is defined as 'science-based' if it is in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement – limiting global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C.

SFDR

The Sustainable Finance Disclosures Regulation (SFDR) – The SFDR is EU legislation which has been in force since 1 January 2022, and aims to create more transparency and prevent greenwashing (purposeful or not). It places a requirement on financial services providers and owners of financial products to assess and disclose ESG considerations publicly. See [Appendix A: Green Finance Disclosure Regulations](#), above.

TCFD

The Taskforce on Climate-related Financial Disclosures (TCFD) was established in 2015 and is a body of market-leading professionals which has released recommendations on financial disclosures in relation to key climate risks. Whilst the recommendations are voluntary, many countries are looking to make them mandatory for their largest businesses, including the UK, France and Japan, where it has been mandatory since early 2022.

TNFD

The Taskforce on Nature-related Financial Disclosures (TNFD) was established in 2019 and is an additional group which follows on from the TCFD. However, the recommendations of the TNFD are linked to nature related disclosure and biodiversity as opposed to climate related disclosure and risk.



We are the trade association for real estate lenders and the real estate finance market in Europe. Our mission is to promote transparent, liquid and sustainable real estate debt markets for the benefit of our members, the wider industry and ultimately the economy and society as a whole. We are the meeting place for real estate lenders, debt investors and borrowers, and the collective voice of the industry in communicating with policymakers and regulators.

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The Association of Real Estate Funds represents the UK real estate funds industry and has around 60 member funds with a collective net asset value of around £65 billion under management on behalf of their investors. The Association is committed to promoting transparency in performance measurement and fund reporting through the AREF Code of Practice, the MSCI/AREF UK Quarterly Property Funds Index and the AREF Property Fund Vision Handbook.

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