RICS Professional Guidance, Global

Sustainability and commercial property valuation

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Acknowledgments

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RICS Valuation – Professional Standards (the ‘Red Book’)

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To ensure that its members are able to provide the quality of advice and level of integrity required by the market, RICS qualifications are only awarded to individuals who meet the most rigorous requirements for both education and experience and who are prepared to maintain high standards in the public interest.

Members who qualify as valuers are entitled to use the designation ‘Chartered Valuation Surveyor’ and, in addition to compliance with the general rules of conduct applicable to all members, must also comply with the RICS Valuation – Professional Standards, generally referred to as the ‘Red Book’.

RICS has in place a regulatory framework. Where a valuer undertakes work that has to comply with the Red Book, that valuer is also required to register with RICS. Registration enables RICS to monitor compliance with the RICS Valuation – Professional Standards and take appropriate action where breaches of those standards have been identified. For further details, please see www.rics.org/vrs
This is a guidance note. Where recommendations are made for specific professional tasks, these are intended to represent ‘best practice’, i.e. recommendations which in the opinion of RICS meet a high standard of professional competence.

Although members are not required to follow the recommendations contained in the note, they should take into account the following points.

When an allegation of professional negligence is made against a surveyor, a court or tribunal may take account of the contents of any relevant guidance notes published by RICS in deciding whether or not the member had acted with reasonable competence.

In the opinion of RICS, a member conforming to the practices recommended in this note should have at least a partial defence to an allegation of negligence if they have followed those practices. However, members have the responsibility of deciding when it is inappropriate to follow the guidance.

It is for each member to decide on the appropriate procedure to follow in any professional task. However, where members do not comply with the practice recommended in this note, they should do so only for a good reason. In the event of a legal dispute, a court or tribunal may require them to explain why they decided not to adopt the recommended practice. Also, if members have not followed this guidance, and their actions are questioned in an RICS disciplinary case, they will be asked to explain the actions they did take and this may be taken into account by the Panel.

In addition, guidance notes are relevant to professional competence in that each member should keep themselves up to date and should have knowledge of guidance notes within a reasonable time of their coming into effect.

This guidance note is believed to reflect case law and legislation applicable at its date of publication. It is the member’s responsibility to establish if any changes in case law or legislation after the publication date have an impact on the guidance or information in this document.
Document status defined

RICS produces a range of professional guidance and standards products. These have been defined in the table below. This document is a guidance note.

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Global guidance note – Executive Summary

Sustainability encompasses a wide range of physical, social, environmental and economic factors that can impact on value and of which valuers should be aware. The range of issues includes, but is not limited to, key environmental risks such as:

- flooding
- energy efficiency
- climate
- design
- configuration
- accessibility
- legislation
- management and
- fiscal considerations.

As commercial markets become more sensitised to sustainability matters, they may begin to complement traditional value drivers, both in terms of occupier preferences and purchaser behaviour.

The pace at which sustainability may feed into value will vary depending on the property type and the geographic market/submarket in which the asset is situated.

In order to respond appropriately as markets change, valuers should continuously seek to enhance their knowledge of sustainability.

The role of valuers is to assess market value or fair value in the light of evidence normally obtained through analysis of comparable transactions. 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.

Valuers are advised to collect appropriate and sufficient sustainability data as and when it becomes available for future comparability even if it does not currently impact on value.

Only where market evidence would support this should sustainability characteristics be built into a report on value.

Valuers are often asked to provide additional comment and strategic advice. In these cases valuers will need to consult with the client as to the use and applicability of sustainability metrics and benchmarks in each case. For example, when preparing investment values (commonly known as ‘worth’), sustainability factors that could influence investment decision-making may properly be incorporated, even though they are not directly evidenced through transactions.

Where appropriate, in order to comply with best practice in reporting, valuers are recommended to:

- assess the extent to which the subject property currently meets sustainability criteria and arrive at an informed view on the likelihood of these impacting on value, i.e. how a well-informed purchaser would take account of them in making a decision as to offer price
- provide a clear description of the sustainability related property characteristics and attributes that have been collected, that may include items not directly reflected in the final advice as to value
- provide a statement of their opinion on the relationship between sustainability factors and the resultant valuation, including a comment on the current benefits/risks that are associated with these sustainability characteristics, or the lack of risks and
- provide a statement of the valuer’s opinion on the potential impact of these benefits and/or risks to relative property values over time.
1 Introduction

1.1 Sustainability, which covers a broad range of physical, environmental and social factors, is playing an increasingly important role in legislation and patterns of economic behaviours and preferences. It is vital that valuers of commercial property and players in the wider pricing sector are fully aware of the various ways that sustainability may impact on the level of values that they report. For example, sustainability issues can relate to:

- physical characteristics of buildings
- the impact of climate change on location
- legislation, public policy and fiscal measures or
- increasingly sustainability-aware attitudes of both occupiers and investors.

All or any of these may impact on market value, fair value, market rent or investment value. The potential or actual impact of sustainability factors should be considered, and where appropriate, recognised at all times.

1.2 Commercial markets, though varying geographically, have become progressively sensitised to sustainability considerations over time. Therefore, valuers should ensure that they are informed of the relevant legislation and policy trends and the changing views of stakeholders.

1.3 As a consequence, sustainability-related attributes and characteristics of property assets are now beginning to enhance and complement the traditional drivers of a property’s economic value, investment risk and performance. Sustainability affects all buildings, not just those that purport to be ‘green’, ecologically-friendly or certificated, but will vary in terms of their significance for different properties in different markets with different regulations and varying elasticity of supply and demand. Therefore, consideration of sustainability matters should be inherent within each and every market or investment valuation.

1.4 Recent empirical research has shown that many national property markets increasingly distinguish and differentiate between buildings that exhibit different sustainability-related building features and associated performance. This is recognised not only by responsible investors and their professional advisers, but also by the wider investment community. There is much greater awareness of the risks to value of building obsolescence in relation to climate change, energy shortages and price volatility, occupier demand, their occupation costs and corporate social responsibility objectives. It is also the case that many owner-occupiers are developing awareness of how sustainability impacts on their decision-making processes throughout their supply chains, including their real estate purchasing decisions.

1.5 Further, as part of their inspection procedures, valuers are advised to collect appropriate and sufficient sustainability data, as and when such data becomes readily available, so that they can utilise the data for analysis and apply them to their estimates of value. Over time the collection of such data will allow valuers to make well-informed judgments on value and enable them to provide clients with appropriate information on which to base their investment or purchase decisions. Valuers are also referred to the RICS information paper Comparable evidence in property valuation (2012).

1.6 When requesting information, valuers are advised to refer to sustainability metrics where available, even if not for immediate use, as this will contribute to the growth of information and data available in the marketplace. These data will then provide a framework for the analysis of comparable properties in order to inform future valuations. The types of data that should be investigated are considered later in this guidance note.

1.7 The type, size and location of the property will have a significant influence on the extent to which sustainability features are likely to impact on market or investment value. This includes not only its desirability from a design and accessibility point of view, but also the cost and ease of adaptability to incorporate sustainable features, as this can vary significantly between different construction and design types.
2 Role of the valuer

2.1 If sustainability features are identified and recognised as having an impact on value, they should be built into the calculations to the extent that a well-informed buyer and the market would account for them, as evidenced by comparable transactions. If more detailed advice is to be given, valuers may wish to place the valuation within a wider context that may include the likelihood of sustainability issues gaining in importance over time. Valuers should provide the best qualitative assessment based on the best quantitative information that should reasonably be available. When considering the impact of these data on value, it should be taken into account that the guidance in this document is at a global overview level and that the influence and impacts of sustainability features vary across local markets and from country to country. There may also be occasions where the information required to provide full and appropriate advice goes beyond the reasonable expertise of the valuer. Where this is the case, the valuer should discuss with the client the appropriateness of seeking specialist advice.

2.2 Where a market value or fair value, for use in financial statements prepared under International Financial Reporting Standards (IFRS), is being prepared, only those factors that can be evidenced from analysis of the market should be included. However, where a valuer is providing an investment value (commonly known as ‘worth’), factors not yet reflected in market value, but that may influence an investor’s decision-making, should be considered and a view taken as to whether they are relevant over the proposed holding period. Similarly, where an estimate of fair value is made that differs from the market value, it may be relevant to incorporate consideration of sustainability factors that are not yet evidenced through market transactions.

2.3 Valuers are referred to the RICS Valuation – Professional Standards (the ‘Red Book’) for definitions of market value, fair value and investment value.

2.4 When collecting data on a property for valuation, valuers are advised to expand their basic data collection to include a record of any sustainability factors, even if they do not currently impact on value. Through expanding the data available within the market, valuers are contributing to the improvement of knowledge within the profession by establishing an information base on the sustainability of market comparables – an essential exercise when valuing new build properties. For example, when valuing existing stock it is recognised that such properties, due to the period at which they were built, may not meet current environmental standards, which, in most jurisdictions, have risen significantly over recent years. Not only might this affect the weighting given to the analysis of comparable evidence, but valuers should take a view, if necessary supported by additional investigations by a sustainability specialist, as to the likely ability to bring the property up to modern standards at a cost that is economic. Valuers should also take into account any special considerations that might apply in the case of a historic building to which extra regulatory requirements or physical constraints might apply.

2.5 In order to identify and assess sustainability features proficiently, valuers should continuously seek to improve their knowledge of sustainability so that they are fully aware of any new developments that may have an impact on value. This includes new technologies, legislation, public policy and fiscal measures as well as the wider market’s attitudes towards sustainability.

2.6 Valuers are increasingly being asked to provide strategic advice regarding properties in relation to proposed sale/purchase or in terms of investment management. It is likely that sustainability considerations will come into play when such advice is sought, in relation to trends in both occupier and investor markets, and in the wider economic and political environment. At all times valuers will need to consult with the client as to the use and applicability of metrics and benchmarks (such as sustainability accreditation schemes) in each case. Further, where valuers lack the necessary knowledge and skills to interpret sustainability data they should seek specialist advice, as it is an RICS requirement that valuers always operate within their area of expertise.
3 Assessing a building’s sustainability characteristics

3.1 Introduction

3.1.1 The perception of what a ‘sustainable’ building is will change over time and between locations. Additionally, there are varying interpretations of the concept of sustainability and each stakeholder in a building will have a different perception as to what the critical issues are. Buildings are complex structures, and every element from design to construction materials to location, is likely to have an impact on the building’s performance against sustainability criteria. Therefore, it has to be acknowledged that assessing a building’s sustainability characteristics is a complex activity and that it is not a precise science. It follows that the considerations detailed below are only an indication of the matters that may impact on value. Sustainability factors do not just relate to matters of environmental design and performance but equally to leasing and management matters, and to transport, location and accessibility.

3.1.2 Although there is no one definition of a sustainable building, developers and owners of buildings are increasingly and voluntarily seeking to certify their buildings using one of a range of recognised codes (for example, LEED and BREEAM – there may be others that might be more applicable in certain regions). While many of these were originally designed for use with new buildings, increasingly they have been designed for use with existing stock. Further, in some jurisdictions, such as the EU, there are some mandatory codes that apply to existing buildings. Values should be aware of the codes that apply to the buildings they are valuing and be cognisant of the fact that most schemes are multi-criteria, which makes comparison between buildings complex. Most schemes are updated regularly, so a building’s past rating may no longer be a sound indication of the rating it would achieve if re-assessed at the date of valuation. Importantly, the schemes are often prescriptive in terms of measures in contrast to valuation standards, which are principles-based. Further, the quantum of use of certification schemes varies from country to country. Although they are commonly used in some parts of the world, such as Australia, the USA and the UK, in other countries, including some European countries, certificated stock may form an insignificantly small proportion of the stock. Their use is also more common among some types of stock, typically offices and buildings that may appeal to public sector occupiers or large corporate concerns, rather than other commercial buildings.

3.1.3 In addition to the building certification listed above, valuers should be aware of other international corporate benchmarking and performance measurement schemes that are enabling companies to systematically embed their corporate responsibility policies throughout all aspects of their businesses, including their property strategies. Schemes such as the CEN standards and ISO 14001 measure a company’s progress towards more sustainable management. Also since 2010 the Global Reporting Initiative’s Construction and Real Estate Sector Supplement has provided a mechanism whereby the rapidly increasing number of companies who measure, monitor and report on their sustainability performance can measure their property’s sustainability performance against a standard list of metrics. While it is recognised that the use of such tools is largely restricted to global or high worth companies, such companies play a dominant role in some property markets as occupiers and/or investors. Within property markets that are dominated by local players and/or low value stock these metrics are potentially of little current relevance, but, as mandated systems develop and the use of voluntary systems becomes more widespread, this position is likely to change.

3.1.4 The absence or presence of certification is not an absolute measure as to whether a building is sustainable, presence of a certificate merely provides a quick reference point towards this. The lack of a certificate does not mean that a building is not sustainable; the presence of a new one is, however, an indication that a building continues to be sustainable. Valuers are therefore advised to gain understanding of the measures used and when undertaking their investigations to seek to establish the age of the certificate in determining whether continued
compliance is being monitored and to take this into account when assessing the overall characteristics.

3.2 Collecting evidence: inspection and other investigations

3.2.1 The extent of the inspection and investigation will normally be as set out in the RICS Valuation – Professional Standards. They should also be agreed with the client at the time of instruction, and the matter of specific sustainability-related investigations should also be discussed at this stage. Valuers should be satisfied that sufficient information is held to enable them to make an informed judgment and provide sound advice to the client. Information may have been provided through valuers’ due diligence processes and must be subject to appropriate verification. Data should, wherever appropriate, be collected for future comparability even if it does not have an impact on value at present. It is recognised that the amount and robustness of data available to valuers will vary between jurisdictions. In undertaking their investigations, the valuer should also ask their clients to provide data (e.g. on energy performance). If clients are unable (or unwilling) to provide data, then this should be treated as a potential additional risk factor.

3.3 Key environmental risks

3.3.1 There are many environmental risks that may affect a property. Extreme weather events such as flooding, mudslides, drought, earthquakes and tornadoes are becoming more common in some locations. While in some regions environmental risks are routinely built into valuations, the increasing incidence of extreme weather events, the impact of rising sea levels and temperature changes have all significantly increased the number of properties at risk. Further, the increasing inclination of governments to legislate to mitigate where possible against climate change implications presents a changing regulatory framework within which valuations take place. It is not just the impact of climate change that presents environmental risk. Natural resource depletion, soil and air pollution, and the rising levels of waste materials produced all present risks that require management, with consequent implications for real estate management and values. Valuers should ensure that, as far as reasonably possible, up-to-date information on key risks is gathered and considered when comparing the subject property to others used as part of the evidence base. In so doing valuers should investigate the extent to which such risks are insurable and the extent to which these risks relate to the subject property alone or to other properties within the locality. For example, in terms of susceptibility to storm damage, the degree of risk will relate to the building’s structural design as much as to its location.

3.4 Design and configuration

3.4.1 Sustainable buildings will generally include several key components. Usually they will have been designed or refurbished to achieve longer life cycles, will have different resource utilisation or ecological footprints (which have been considered over their life cycle) or will have design features that impact on factors such as:
- the heat island effect
- internal natural light distribution
- natural ventilation
- water and
- storm water management
and so on.

These are complex factors that can positively or negatively impact on the building’s letability and financial and investment profile, as well as the building’s resilience to climate change and resource depletion.

3.5 Construction materials and services

3.5.1 While a full survey may not always be undertaken as part of a valuation, prospective market participants will wish to consider:
- the type of building materials used (including the presence or otherwise of dangerous and deleterious materials)
- the servicing and replacement of building materials
- building services such as air-conditioning and heating installations
- energy efficiency and sourcing
- water efficiency and
- waste management provision.

The extent to which these services are provided and the life cycle implications inherent to certain materials may well impact on profitability and financial outlay for both investors and occupiers. Not only could the impact be directly financial, but the types of materials and services can also have social implications, such as on staff productivity and health and well-being, and environmental implications, as non-renewable materials or inefficient services can cause avoidable negative environmental consequences.

3.5.2 Valuers should assess the use of new technologies, such as photovoltaics and solar panels, and consider them within the context of the local market. Technology is constantly developing and changes rapidly, and although some systems have
been proven as reliable and effective over time, many are quickly becoming more advanced, efficient and cheaper. As a result, valuers should be aware of the differences in the technology available, as well as any financial incentives or grants associated with the technology. They should also be aware that not all new technologies are successful, and in some submarkets, prospective occupiers and investors may actively avoid properties with technologies they consider to be unproven.

3.5.3 It is also worth noting that the suitability of certain materials or services can vary between construction type, age, use and context of the building, and that the ability and cost for a building to be upgraded to particular sustainability standards can also vary. Valuers are therefore advised to familiarise themselves with this information so that they can make an informed judgment as to whether a particular sustainability feature is suitable and whether it has a negative or positive impact, if any, on value.

3.6 Location and accessibility considerations

3.6.1 Location is particularly important and is normally factored into the valuation. It is often assumed that for a property to be sustainable, it should discourage car usage and be close to public transport. However, such an approach denies the requirement to satisfy the needs of both employees and visitors. A property that depends wholly or primarily on public transport may simply fail on economic or use-efficiency grounds. Ideally, it should be accessible via a variety of means of transport and have sufficient parking provision to maintain value. The definition of what is sufficient will vary between cities and countries, and national and local transport policies will be relevant. Where premises lack accessibility, it can lead to higher stress and staff turnover among those working there and it impedes the social role of assets designed for visits by members of the public. In operational terms, asset managers can ensure that their operational management plans do not simply seek to penalise car users (for example, by the introduction of car parking charges) but that, as far as possible, access by all transport modes is enhanced (for example, by the installation of secure cycle storage, changing facilities and showers).

3.7 Fiscal and legislative considerations

3.7.1 While the exact type and focus of fiscal and legislative measures will vary between countries, there is an overall move towards tighter regulation, the majority of which focuses on the environmental side of sustainability. Regulation for EU Member States is increasingly being driven by EU legislation rather than domestic measures at the individual country level. Despite this, some countries are introducing their own fiscal and legislative measures that seek to improve the sustainability performance of buildings. Valuers should be aware of both existing measures and potential future measures, as these may have severe impacts on rental and capital values.

3.7.2 Making progress towards achieving sustainability is a high government priority in many countries and in some cases specific goals are linked to fiscal initiatives including tax breaks and incentives. In most jurisdictions, increased government regulation affects the process and requirements for compliance across the entire range of asset ownership and sectors.

3.7.3 These impacts exist at international, national, regional and local levels and may vary substantially. In certain instances, the regulations are intended to ensure increased sustainability and act as barriers to non-sustainable buildings, improvement, renovation and retrofit, construction or use. Non-compliant assets may be at risk of depreciating in value.

Taxes levied on emissions or unsustainable aspects of buildings may detract from value.

In some jurisdictions, fiscal and planning incentives exist to encourage sustainability. Where this is the case, these could enhance asset value.

Credits from validated and (usually) registered carbon emissions reductions could potentially add to value.

3.8 Planning considerations

3.8.1 Most jurisdictions have statutory land use or spatial planning frameworks within which development takes place. The notion of ‘sustainable development’ is defined in the Brundtland Report as follows:

’Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.’ (Our Common Future, World Commission on Environment and Development, chapter 2, OUP, Oxford, 1987)

This is increasingly translated into planning policies and regulations, so the valuation of commercial properties with development potential may be impacted by the need for such redevelopment or refurbishment to be delivered to sustainable standards. Valuers should consider whether such standards have an impact on
the likely costs of development or on the potential rental or capital value realised upon development.

3.9 Management and leasing issues

3.9.1 When seeking to improve a building’s inherent sustainability characteristics, owners or occupiers normally have little option other than to refurbish. However, even the ‘greenest’ building, if inappropriately managed, will not perform to its specification standards. Sustainable management systems, including simple behaviour changes, can therefore have a great impact on operational sustainability aspects. Whether the letting arrangements factor in for sustainable management systems may in some cases be pertinent to value.

3.9.2 The inability of some assets to perform against increasingly stringent environmental and social standards or to physically withstand the impact of, for example, flood and storm, presents additional risks to the building owner and/or occupier. Such risks, where they can be quantified, may be insurable. A market valuation does not normally factor in the costs of insurance. However, in some instances the ability to insure against extreme weather events may change as they become increasingly common, leaving some properties exposed to a risk of significant future management costs.

3.9.3 Within the investment sector there is an emerging movement towards the implementation of landlord and tenant arrangements that encourage, or even contractually impose, standards of sustainable asset management on either or both the landlord and the tenant. Some such leases aim to address the inequities of investment and return inherent in traditional leases, in which the landlord has responsibility for capital investment but the beneficiary is the tenant. The concept behind these ‘green leases’ is to share the tenant’s savings with the landlord so that both benefit and there is an incentive for the landlord to undertake sustainable investment. Some green leases may place the tenant under potentially onerous liabilities in relation to repair, including specification of materials and hand-back clauses. Where such arrangements exist valuers should assess whether they may have an impact (positive or negative) on rental value or yield within the local market.

3.10 Social considerations

3.10.1 Sustainability is not purely about environmental issues: there is a strong social dimension as well. Within the commercial context, considerations such as corporate social responsibility and the health and well-being of employees (for example, ambience in the provision of social space in offices) are increasingly important in property decision-making. Further, depending on the type and location of the buildings, perceptions of security and installation of security systems may affect the attitudes of those working within or visiting buildings. Where valuers believe that such considerations will be material value factors they should be noted and accounted for within the valuation. With the rise of changes in working patterns, the presence (or otherwise) of high speed digital connectivity may be regarded as a socio-economic factor that fits potentially under the heading of social sustainability. If a property is in an area without good connectivity the new styles of working may not be possible – with potential value implications.
4 Reflecting sustainability characteristics in market value, fair value, market rent and investment value

4.1 Introduction

4.1.1 All valuations prepared under the Red Book should take account of the actual or potential implications of sustainability factors on the valuation, to the extent that they are reflected in the open market. It is acknowledged that for many markets and submarkets these may not, as yet, feed through to pricing. Valuers should consider the possibility that they might do so in future, and actively seek to collect appropriate evidence and analyse it as part of their informed judgment on comparable evidence. The degree to which sustainability characteristics are likely to vary, depending on whether a market value, fair value or investment value is being prepared, should also be considered.

4.1.2 An estimate of market value, fair value or market rent normally reflects the views of a well-informed potential buyer or tenant using evidence of value found through the analysis of transactions of comparable properties. Such analysis and subsequent valuation may or may not involve a discounted cash flow calculation in which individual factors are explicitly appraised. However, even where an all risks yield approach is undertaken, valuers may be instructed to give further advice as to how the value sits within a market context. Therefore, when advising a purchaser, the advice may in some circumstances extend beyond the estimation of sale price or rental value. For example, it may include an opinion on the level of risk to which the value may be susceptible under foreseeable market changes, with one of these areas of risk being the level of sustainability. It is therefore important that valuers not only assess the extent to which the subject property currently meets sustainability criteria but also hold an informed view on the likelihood of environmental and social factors impacting on values, either positively or negatively over the short term, and that the hypothetical well-informed purchaser would account for in making a decision as to offer price.

4.1.3 An estimate of investment value will normally require valuers to prepare detailed explicit discounted cash flow predictions of the subject property taking a specific time frame and calculating an exit value (see the RICS guidance note Discounted cash flow for commercial property investments (2010)). It is normally prepared when a valuer is providing specific advice to a client for the purposes of a proposed purchase, or to make strategic decisions regarding holding or selling a property already held within a portfolio. But such predictions may also be used for the purposes of preparing a market value or fair value. For investment value calculations, valuers will have taken full account of what is happening within the market. Additionally, they may need to reflect more closely on attributes that are not yet clearly evidenced within the market but that may have an influence in the future, for example rental growth, the risk rate for discounting, and the prospect of obsolescence, which needs to be reflected within the exit value. For these reasons it is more likely that sustainability characteristics will feed through into investment values before they are clearly reflected in market pricing.

4.2 Analysing comparable evidence in the light of sustainability issues

4.2.1 In some parts of the globe and in some markets, comparable evidence is emerging through empirical studies that certain sustainability characteristics – primarily those relating to energy efficiency – are beginning to filter through to market pricing. In other markets the evidence is far less apparent. Due to the constrained amount of data in the market, it is likely that it will be some time before sufficient information exists to empirically support a valuer’s decision to differentiate values based on the full range of sustainability criteria. In some submarkets – for example, central business district offices, where occupational demand is likely to be from international occupiers, or low value properties where occupiers are cost-conscious – the market may react more swiftly, particularly where supply and demand are not in equilibrium.
4.2.2 In recent years the amount and type of data available to valuers in relation to sustainability have been growing. Although this varies considerably between countries, the data regarding sustainability available to valuers either on inspection or through desk-top research can typically include matters relating to location, site, building specification and configuration, documentation and letting specifics. Appendix A contains a checklist of matters valuers should consider. It should be recognised that the quality and quantity of data will vary between regions; similarly the impact on value will vary from nothing to significant. The valuer’s judgment will also affect the strength of the impact.

4.2.3 It is important to note that the distinction between data that has commonly been regarded as a ‘sustainability issue’ on the one hand, and data relevant to valuation on the other, is constantly evolving and is also location dependent. It has already been noted that the availability of data and their impact on valuation will vary between jurisdictions and between submarkets. Further, discussion on sustainability has altered over time, from an agenda dominated by environmental factors such as energy consumption and propensity to flood, to embrace wider issues such as health-related aspects and, more recently, matters such as comfort and flexibility, etc.

4.2.4 Valuers are encouraged to gather the type of information listed in Appendix A routinely and to provide explanations of their valuation adjustments in relation to the risks associated with less sustainable property, as well as considering the more subjective and intangible features before coming to a final value of the subject property. Notwithstanding this, when preparing a market value or fair value, the final figure should be adjusted for sustainability factors only if there is evidence to support the adjustment. Over time, the degree to which the factors will influence market pricing will change, and much will depend on the type of building, its use and the type of market and submarket within which it is located. The influence of regulation and future proposed legislation is also likely to have an increasing impact on property values. For example, as governments take the scientific evidence in relation to climate change ever more seriously, the incidence and financial implications of more stringent regulatory frameworks is likely to affect values to the point where some buildings will suffer significant advanced obsolescence and shortening of economic life, or may be prohibited from future use, as is already planned for some buildings in the UK.

4.2.5 To support this process and add to the data in the market, it is recommended that the valuation report, where the valuation instruction allows, includes the following:

- a clear description of the sustainability-related property characteristics and attributes that have been collected, even where these are not directly reflected in the final advice as to value
- a statement of the valuer’s opinion on the relationship between sustainability factors and the resultant valuation, including a comment as to the current benefits/risks that are associated with these sustainability characteristics, or the lack of risks including risks relating to lack of data; and
- a statement of the valuer’s opinion on the potential impact of these benefits and/or risks to relative property value over time.

This will enable valuers to give the client all material information relevant to the judgment on value.

4.3 Occupiers/tenants

4.3.1 Occupiers generally view property as a resource from which to operate. It follows that their prime concern will focus on the ability of the building to perform to their current and emergent needs, including both their environmental targets and, increasingly, their social responsibilities. Therefore, to occupiers, the specific sustainability characteristics that are most likely to influence their own view of the property will relate to the following issues. Over time each is likely to gain increased importance and will be likely to impact on rental growth.

Statutory or voluntary certification schemes: some schemes are single issue schemes like Energy Performance Certificates (EPCs) in the EU or Energy Star Ratings in the USA, while others are multi-issue such as LEED, BREEAM and Green Star. The single rating schemes provide the most transparent benchmarks for potential occupiers and are most likely to impact on rental values. Voluntary certification schemes are less transparent or well understood, but they do provide clear indications to potential occupiers as to the likely performance of the building across a range of indicators and may well indicate a building that will be both efficient to run and liked by their occupiers. They do not provide clear quantifiable cost reduction metrics but they do show the value sets of their occupiers and can be important indicators of social responsibility policy. For this reason some companies and public sector bodies have taken decisions to only operate from buildings that have certification at prescribed levels. Where the building is located within an area where such occupiers are the most likely bidders for the property, rental value may well be impacted by the presence (or otherwise) of certificates.
**Energy**: energy efficiency has a direct bearing on operational costs. Energy prices have had a tendency to rise faster than other costs, and in some jurisdictions carbon pricing is also a reality. However, valuers should be aware that in high value areas the cost of energy remains a very small proportion of overall occupancy costs; in other areas, or for some types of property such as data centres (see the RICS guidance note *Valuation of data centres* (2011)), reliability of energy sources may be a more important consideration.

**Flood risk**: business continuity is a major issue, therefore a building that is prone to flooding is less desirable even if that risk is insurable and, as a consequence of climate change in some localities, this may itself be an issue. The presence of on-site defences will go a long way towards mitigating the risk but forward planned defences will not provide tenants with assurances against possible breaks in business activity. As patterns of rainfall change and may become more intense in some regions, often accompanied by high winds, the ability of the structure to withstand abnormal weather conditions may gain importance in locations where previously this was not an issue.

**Water conservation/water recycling facilities**: the level of threat to water supplies varies between countries, but in many parts of the world water supply is becoming an increasingly important issue, and costs have risen accordingly. While this may not be an issue for some types of property, the expectation for some buildings, such as Grade A office stock, is that water conservation measures will have been introduced and in many cases grey-water schemes have been designed. Failure to do so could result in a negative impact on the rental bid.

**Waste reduction facilities**: natural resource depletion and profligate consumer behaviours have led to increased consciousness of the need to reduce and manage waste. Not only does the removal of waste cost money, it is a matter of social responsibility. Waste minimisation is an ambition of many governments, and is supported through RICS policy in terms of, for example, refurbishment works (e.g. the Ska Rating system). From a management perspective, the ability to segregate and compact waste on-site is important in some types of properties, such as shopping centres and industrial units where waste production is an important concern.

**Occupier health and well-being statistics**: in relation to workplaces, notably offices, there is a large body of literature now emerging that relates the work environment to hard data in relation to feelings of productivity, mental and physical well-being, and employee recruitment and retention. Where there is a strong demand for employee ‘talent’, the market is likely to be more sensitised to the need for workplace design to accommodate employee preferences, which include factors such as good social space, natural lighting and individual temperature control. Facilities such as showers may also be important as well as on-site facilities for refreshments and religious observance; and in off-centre locations, child care and recreational activity.

**Building flexibility within use**: building design is not something that can normally be altered without large-scale capital investment. However, even when occupiers hold only short-term legal interests they may need to make changes to the way they use space during the period of possession. If a building does not accommodate this, it will be less attractive to occupiers who require flexibility in how they use space. Even when the period of occupation is anticipated to be lengthy, building flexibility is important: rapidly evolving work patterns mean that inflexible buildings will require capital expenditure and may exacerbate waste problems as adaptation takes place. Therefore buildings specified with reusable partitioning, for example, may well be advantageous to their occupiers.

**Lease clauses**: in some countries, most notably Australia and Canada, the use of so-called green leases is becoming more widespread. Sometimes green leases are interpreted as leases of ‘green’ buildings, but this is inaccurate. Green leases are those that contain clauses within the lease, or the addition of a Memorandum of Understanding attached to the lease, that place additional responsibilities and potentially additional costs on the tenant. While these clauses are not necessarily punitive, some are. If they involve the tenant in actual or potential additional costs they could result in a lesser rental bid. Alternatively, some tenants could regard the acceptance of a green lease as fulfilment of their public stance of being socially responsible. As with all matters of lease interpretation valuers should take care to analyse the inter-relationship of clauses against each other, and between the subject property and those of comparable properties.

**Fire risk**: the extent to which a building is at risk from fire will be a product of its specification, usage, management and location. Buildings located in hot arid climates may be more at risk, and devastating fire is more likely where the construction is lightweight and uses large amounts of combustible materials. However, there are factors other than specification and climate that matter. A well-managed building should also have well-maintained fire prevention systems in place as well as a sound and effective educative system to ensure that all users of the building are fire-alert. These
Discounted cash flow (DCF) is increasingly used for secondary buildings where the likely tenant is unknown. Information collected by RICS reveals that as indicated above, the use of discounted cash flow (DCF) is widespread in some countries for the determination of market values and fair values. But whether or not DCF is adopted to establish market value or fair value, it is the preferred methodology for determining investment value. Where a market value or fair value has been determined using a DCF the evidence base for support a differential value between more and less sustainable buildings is increasingly strong. Valuers, in agreeing instructions, should ensure that the client is aware that sustainability issues are likely to affect the capitalisation rate. However, large buildings that will most likely trade between institutional investors or property companies with a strong commitment to responsible investment may sell for higher yields than those that have good sustainability credentials, both in relation to their ability to reflect corporate values and to their prospects for rental growth. It is, however, stressed that it is the responsibility of valuers to understand their local market and to be able to determine with confidence the extent to which such matters are impacting on purchaser behaviours.

4.4.3 For secondary buildings where the likely tenant profile is cost-conscious, the issue of energy efficiency may be the only environmental factor that is currently likely to affect the capitalisation rate. However, large buildings that will most likely trade between institutional investors or property companies with a strong commitment to responsible investment may sell for higher yields than those that have good sustainability credentials, both in relation to their ability to reflect corporate values and to their prospects for rental growth. It is, however, stressed that it is the responsibility of valuers to understand their local market and to be able to determine with confidence the extent to which such matters are impacting on purchaser behaviours.

4.4.4 Valuers must be aware of the profile of the likely investment purchaser and the degree to which such a purchaser will be cognisant of sustainability concerns at all times, in seeking to determine the appropriate market capitalisation rate for any building. They should also be aware of the purpose for which the valuation has been commissioned and the needs of the client. In particular, where a market value has been commissioned for the purposes of a secured loan, the lender will wish to be aware of the quality of the building as a security over the term of the loan. Valuers, in agreeing instructions, should ensure that the client is aware that sustainability issues are likely to have an increasing impact on capital values moving forward even where these are not yet evidenced in the market.

4.4.5 Additional considerations where DCF techniques are adopted

4.5.1 As indicated above, the use of discounted cash flow (DCF) is widespread in some countries for the determination of market values and fair values. But whether or not DCF is adopted to establish market value or fair value, it is the preferred methodology for determining investment value. Where a market value or fair value is determined using a DCF the evidence base to support a differential value between more
sustainable buildings and those that are not so sustainable is not yet well developed. However, investment values are usually calculated using explicit DCF techniques and are normally prepared for investors who are seeking to judge not just current performance but who are also looking to the future. Therefore, when preparing such calculations to provide strategic advice valuers are advised to consider the following aspects.

**Rental growth:** various sustainability factors are now beginning to work their way through to rental bids. In time there are likely to be widening rental growth differentials between more and less sustainable buildings. This will not necessarily result in a ‘green premium’: it may well result in a ‘brown discount’. Although not proven, given the high profile granted to matters of energy efficiency and carbon reduction, and the way these issues are feeding through into fiscal and regulatory actions, overall energy matters are likely to be the most sensitive to rental growth differentials.

**Obsolescence and depreciation:** many sustainability factors will impact on the rate of obsolescence and consequent value depreciation. Valuers should consider whether the subject building is below best standards appropriate to its location and class in ways that are curable or non-curable. Where retrofitting can bring the building to a reasonable and appropriate level of sustainability, this can be factored in by the discounted net cost of retrofitting. However, in some cases this will not be possible at an economic cost and building life will be compromised: in this case an early reversion to site value should be considered.

**Risk premiums:** from all that has been said above it is clear that buildings that do not display good sustainability characteristics may suffer from decreasing occupier and investor demand. It follows that they represent a higher investment risk, and the risk premium attached to the discount rate may need adjustment, either throughout the cash flow period or from the point where value erosion is thought likely to take place. Sensitivity analyses or other explicit risk modelling may be needed to measure the potential impacts on investment value. Where a discount rate based on a risk-adjusted rate is used, it is recommended that an explicit explanation is provided to the client. It is also important that the main sources of risk are identified. Finally, in considering risk it is important not to double-count. Risks to the actual cash flow should be placed within the annual anticipated income/expenditure estimates within the cash flow. Only those risks which do not relate to rent or direct outgoings should be applied to the discount rate.

**Exit yield:** any DCF calculation is undertaken for a fixed period, normally not exceeding a maximum of 15 years (for further advice, see the RICS guidance note *Discounted cash flow for commercial property investments* (2010)). Although some aspects of sustainability are beginning to filter through to observable values in some submarkets, this is still believed not to be the case in the majority of transactions. However, given the current rate of change and the speed with which regulations are changing worldwide, it is anticipated that the effect may be significant in a decade’s time. Valuers are therefore advised to consider the likely impact of sustainability on the residual value at the end of the explicit cash flow period. This may simply mean adjustment to the capitalisation rate: in extreme cases it could mean a reversion to site value only if the building is considered likely to have suffered significant obsolescence or is not economically viable to bring up to an acceptable standard.

**Duration to sell or let:** valuers undertaking a DCF will need to consider whether the cash flow is likely to suffer interruption at the end of a lease term or in the event that a tenant operates a break clause, if the property is less sustainable than others on the market. While the impact is likely to relate to the prevailing economic conditions, the security of cash flow is a critical consideration for investors. Therefore, valuers should consider whether sustainability characteristics are likely to be determining factors in the length of time taken to either let or sell a building, as some empirical evidence is starting to suggest.
5 Conclusion

5.1 The role of valuers is to assess market value or fair value in the light of evidence normally obtained through analysis of comparable transactions. While valuers should reflect markets, not lead them, they should be aware of sustainability features and the implications these could have on property value in the short, medium and longer term. Awareness of sustainability varies between markets, but has risen significantly in recent years, and attention is beginning to expand beyond the initial primary focus on energy efficiency and, to a lesser extent, on carbon emissions and propensity to flood. A range of social and other environmental factors could potentially lead to changes in market demand. Further, increasingly stringent legislative requirements will change the specification of new buildings, and existing stock that cannot be retrofitted at economic cost to meet more demanding standards will be at risk of value depreciation. Conversely, some more experimental construction techniques and technologies may prove to be unattractive to funders and could negatively impact value.

5.2 When assessing the impact of sustainability on market value and fair value, or in calculating investment value (worth) to an individual or individual organisation for strategic purposes, valuers should be aware of the variation in impact that is likely to arise depending on the type of building, which market sector it falls within, and the profile of potential purchasers or tenants. While some purchasers or tenants are likely to move towards requiring sustainability features based on cost savings, for others less tangible considerations may be of greater concern. In all cases it must be recognised that sustainability is not just a matter of environmental performance. Social aspects, including context, space, security, aesthetics, and access to services and amenities, are all important. Currently some, though not all, of these may be routinely included in any estimate of value, but over time they are likely to be of increasing significance, depending on the submarket.

5.3 As part of establishing market value, fair value, market rent and investment value, all valuers should keep abreast of features, technologies and approaches and ensure that they collect appropriate and sufficient sustainability data when inspecting property, as this will enable them to analyse and apply them to any property valuation, as appropriate.
Appendix A: Sustainability checklist

This is a suggested checklist of data and other information factors that valuers should consider collecting where feasible, whether or not there is direct evidence that these currently impact on value. By so doing valuers will be contributing to the systematic improvement in data that will help ensure that, as markets become sensitised to sustainability issues, appropriate analysis can be undertaken to support future estimates of value. The checklist is based on, among other things, international and European standardisation activities on the sustainability assessment of buildings and construction works at CEN (TC 350, e.g. EN 15643-1:2010) and ISO (TC 59/SC 17, e.g. ISO 15392:2008 and ISO 21929-1:2011)

A1: Inspection and investigation

Location

How accessible is the property to:

- public modes of transportation?
- private modes of transportation?
- users with special needs (e.g. physical disability)?
- green and open areas?
- user-relevant basic services?

Site considerations

What is/are the:

- land use and likelihood of achieving a change of type and quality of land use?
- current and planned on-site defences against environmental risks?
- likely or known on-site contamination?
- building’s exposure to sunlight/shading?
- conditions of the soil (e.g. bearing capability, potential for geothermal energy usage)?

Building

In relation to the building’s specification, condition and configuration, what is/are the building’s:

- energy asset rating (if one exists)?
- energy performance (consumption of non-renewable resources during use)?
- carbon emissions?
- source of energy sources available and/or used?
- services in relation to age and efficiency and future life expectancy?
- potential for energy renewal usage?
- likely risks to the local environment through emissions, etc.?
- water consumption during operation?
- water conservation or installation of measures to promote water use efficiency?
- waste reduction facilities (e.g. on-site waste segregation for recycling)?
- capacity to be adaptable/flexible to enable it to be used differently in the event of changing demand patterns?
- likely resilience to the consequences of climate change (e.g. storm damage, maintaining usability if temperature change ensues)?
- barrier-free accessibility to and inside the building (e.g. for disabled users)?
● safety under extreme conditions (such as fire and tempest)?
● design and construction in relation to its ability to facilitate future re-use and recycling of materials in the event of refurbishment and/or demolition?
● health impacts in relation to building materials and building specification (daylight/natural ventilation, etc.)?
● ability to support user comfort (thermal conditions, visual conditions, acoustic conditions and indoor air quality)?
● overall likelihood to maintain a long future life based on the developing sustainability agenda including the periods between refurbishments?
● availability of solutions to resist environmental risks (e.g. flood prevention schemes for buildings at risk)?

Documentation
What documentation is available in relation to:
● statutorily required certifications or ratings (e.g. as required in the EU under the Energy Performance in Buildings Directive)?
● voluntary certifications, including the date granted and grade achieved (e.g. LEED, BREEAM, etc.)?
● any other externally verifiable evidence of sustainability (e.g. winner of any sustainability-orientated design awards)?
● building passports/building files (in the sense of object/building documentations along the building life cycle)?
● ground expert testimonies, building diagnostics, blower-door-tests, etc.?
● planning documentation that supports claims of sustainability?
● life-cycle assessments, ecological footprint analysis, etc.?
● lease terms that encourage or mandate behaviours and standards in relation to environmental and social factors?
● management of the building in line with ethical/social responsibility goals (e.g. Environmental Management Systems, etc.)?

A2: The relationship of data to value
In reviewing and using the data gathered, valuers should consider:
● To what extent does the analysis of sustainability characteristics of the subject property meet the best practice of comparable buildings?
● Does the building present environmental risks that can be quantified and linked to insurance and the ability to form appropriate security for a loan?
● Does the building fail to meet best practice in relation to health, well-being and occupier comfort standards?
● Where a building is below best practice standard, would it be economic to remedy the deficiencies given the context in which the building sits, taking due account of any local or national incentives or discounting schemes that would/could reduce the costs of retrofitting?
● Does the building present operating cost advantages or in other ways present a profile that might make it more attractive to tenants/owner-occupiers than comparable properties?
● What impact does the presence/absence of sustainability characteristics have on the timing and level of resale or re-letting values and the ease of marketing?
● Where the building is currently compliant or even beyond compliance, to what extent is this likely to change in the future given the direction of legislation?
● In the case of tenanted property, what is the likelihood that the actual or potential tenant would use the sustainability feature currently lacking, such as energy efficiency or carbon reduction, etc., as a bargaining tool during rental negotiation (i.e. is there likely to be a ‘brown’ discount)?
● In the case of tenanted property, does the lease or other documented management process support programmes of sustainability improvements?
● Overall, is the subsector of the market and the likely potential tenant/buyer profile ‘sustainability aware’?
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