A Changing Climate for Property Investment: A Trustee’s Guide
Acknowledgements

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A Changing Climate for Property Investment: A Trustee's Guide 01
This guide is designed to increase trustee awareness of the risks and opportunities that climate change and related policy developments present to their property investment activities, and to show how incorporating climate change factors into investment decision processes is consistent with trustees’ fiduciary responsibilities. In doing so, the report complements earlier IIGCC documents focusing on the wider risks and opportunities of climate change for the long term performance of pension fund investments.

The report not only examines the impacts that existing and new buildings are having on the climate but highlights the financial risks and opportunities that climate change and related policy developments create for property investments.

Finally, the report considers what steps trustees can take to ensure that their investment managers and consultants are fully integrating climate change considerations into their investment processes and advice.
The overwhelming consensus among scientists is that increasing concentrations of greenhouse gases in the atmosphere are causing climate change. Global temperatures have risen by about 0.6°C over the last 100 years. Whilst the Earth has historically undergone periodic cycles of climatic change, it is now generally held that human activity has and continues to contribute significantly to the effect in recent times.

Owing to inbuilt inertia in the climate system, further change in the climate over the next 30–40 years is now inevitable. Beyond this timeframe, it is within the control of humankind to reduce the level and rate of further climate change by reducing greenhouse gas emissions. This is leading experts to look at both how to mitigate the further effects of climate change and how to adapt behaviours and activities to the climate change that is now inevitable. These discussions are equally as relevant for the built environment as for any other aspect of human activity.

Investors have a clear vested interest in the long term health of the global economy. If climate change reduces economic growth, this will negatively affect the value of investments made. As such, considering climate change impacts and seeking economic ways to improve the sustainability of property assets is clearly consistent with the fiduciary duty of any long term investor.

For trustees with interests in commercial property investment, it is therefore essential that they appreciate how climate change will affect the built environment in general and the value of their property investments in particular. While evidence to measure the effect on investment returns is currently limited, the emerging belief is that property investment performance will be impacted by climate change and the policy responses taken to curb or adapt to it. Furthermore, if property investors are to play their part in helping curb longer term climate change or adapting their assets to it, they also need to understand how the built environment contributes to the effect. Developing such an understanding lies at the heart of this briefing note.
Valued for its excellent diversification and risk reduction credentials and for its relatively steady returns, real estate is now a common if modest element of most institutional investors’ portfolios. Such investors typically have up to 15% of their assets in property. However, despite representing only a minority element of the investment portfolio, real estate has the potential to play a much greater proportionate role for concerned investors wishing to reduce their greenhouse gas emissions. This is because real estate, through its construction, use and demolition, is responsible for around 30–40% of global carbon dioxide emissions.\(^1\)\(^2\) Indeed, the Intergovernmental Panel on Climate Change identified buildings as offering the most significant opportunity for cost-effective emissions reductions worldwide.\(^3\)

When looking at the effects of climate change on investment performance, we need to look at property in two ways. Firstly, it is clear that, over time, as temperatures rise, UK summers become hotter and drier and its winters wetter and warmer, and extreme weather events occur more frequently, climate change will increasingly affect the operational performance of commercial and retail properties. Those properties better able to cope with these changes should retain greater utility for tenants and thereby command higher rents. Similarly, by being easier to let and re-let, they should prove less risky and, as a result, command higher values generally.

Secondly, as policy-makers act to curb future climate change levels and encourage property owners to adapt their assets, extra costs may be incurred by property owners, which will dilute future returns.

These policy impacts on asset performance will be further magnified by the choices made by the entities that occupy and own property. If owners and occupiers are concerned for both the well-being of the planet and for the role and reputation they have for acting responsibly in the face of climate change, then they may tend to shun properties that are environmentally poor in favour of more environmentally acceptable assets. This will, in turn, affect the rents and prices they are willing to pay for such assets which could materially impact the performance of assets both in absolute terms and relative to each other across the spectrum of environmental performance.

Newsflow suggests that the occurrence of extreme weather events is rising. However, the physical effects of climate change on the performance of real estate assets will unfold over a long period of time. As such, we should think of them as long term impacts on value and asset performance. Much more pertinent to short and medium term performance is the impact of government policies towards mitigation and adaptation policies, and the decisions made by occupiers and the wider investment community.

In the following sections, we will first record the possible long-term physical effects that climate change will have on commercial properties. After that we will examine how the policy environment is developing currently and how it could affect property performance in the medium term. This is followed by a review of how property occupiers and investors are responding to climate change issues. This includes reviewing some of the low and no cost actions property owners can take to reduce the environmental impacts of their assets.

As is always the case in changing markets, changing circumstances offer both opportunity and risk for investors. This is as true for property with respect to the changes outlined above, as it is for any other investment market.
Flood Level

Nov. 24 1990
Dec. 3 1975
Nov. 24 1986
Dec. 2 1977
Whilst it might be changes in policy and social attitudes that will impact the value of property investments in the short to medium term, there will be significant physical effects from climate change in the long term. The range of physical impacts on property of climate change identified below have a common thread. Not only do they create inconvenience and cost for the property owner and occupier when they occur, but they also create a perception of future vulnerability to similar such events in the future. This, in turn, has a detrimental effect upon the ongoing desirability of such properties to occupiers and owners and, as such, naturally impacts on investment value and performance.

a. **Flooding**
Rising sea levels and the increasing frequency and severity of storms will increase the risk of flooding. This will result in physical damage to buildings, disruption to business occupiers, and increased costs and inconvenience. In addition, there will be implications for the development of new buildings. Moreover, predicted climate change is likely to exceed current flood defence specifications and future design criteria may need to be enhanced in response.

b. **Damage to the external envelope**
The external envelope of a building forms the primary barrier against the weather. Higher wind speed, increased intensity of driving rain and increased solar radiation will increase the weathering rates of the external envelope and make it susceptible to damage. The effects of climate change will consequently affect the future design and specifications for cladding materials for both new build and retro-fitting.

c. **Wind-related structural damage**
Buildings are currently designed for wind loads derived from historical wind speed data, and on the basis of acceptable risk using a reoccurrence interval of 1 in 50 years. Future predictions suggest that more extreme wind speeds will occur more frequently in the future. When they do, they will result in a higher incidence of damage and lead to increasingly onerous and costly design specifications for new buildings.
d. Decreased durability and performance of materials
With predicted increases in temperature, wind speed and rain intensity, the current performance standards of building components may not be met. Whilst this will naturally lead to increased future costs to specify higher performance materials either for new developments or for replacement elements to existing buildings, related increased maintenance activity will also result in higher operating costs and, as a result, reduced net investment income.

e. Poorer internal environment
The ability of a building to maintain a satisfactory internal environment for occupiers may become increasingly difficult to achieve as climatic conditions become more extreme, especially in summer where temperatures are predicted to rise significantly. This is particularly so if relevant components and equipment are limited in design capacity. A reduced demand for properties unable to cope may lead to their more rapid obsolescence unless significant expenditure in upgrading or replacement is both feasible and affordable. Either way, investment returns will be reduced.

f. Subsidence
Already a common occurrence with domestic buildings today, drier summers coupled with more intense rainfall causing flash flooding will result in less water infiltration into the ground which is likely to produce a greater occurrence of subsidence in commercial buildings. This will require new engineering solutions.

g. Pressure on water resources
We already know that construction processes are heavily reliant on water supply and may be impacted by greater pressure on water resources. However, existing buildings may be equally affected in future, especially those with intensive demand for water to operate older, less efficient building services.

h. Pressure on infrastructure
The capacity, quality and ability of existing drainage systems to accommodate periods of severe rainfall is such that water collection opportunities are missed and supplies can become cross contaminated. This could well affect the quality of living and working conditions in town centre locations.

i. Delays to construction
Extreme weather events can lead to delays to construction activities, and with it the late delivery of a project resulting in potential losses either in the form of increased project costs from overheads or finance, or from delayed occupation and deferred rental receipts.
We will now look at the more immediate investment impacts from climate change, looking first at policy-led impacts and then at the choices property owners and occupiers are making.

The potential for real estate to make a major contribution to reducing greenhouse gas emissions is understood by policy makers and, as the scientific evidence of climate change accumulates, the political momentum to tackle emissions from the built environment is gathering pace. Governments recognise the potential for imposing taxes, fiscal incentives and penalties to encourage reduced CO₂ emissions on real estate given that it offers potentially significant emissions savings and is fixed in situ and relatively easy to police. As such, these policy and regulatory responses to climate change will have profound implications for the value and performance of property investments.

At European government level, the EU has agreed to cut greenhouse gas emissions by 20% unilaterally by 2020 (increasing to 30% if a global deal is reached). It has also set itself the target of increasing the share of renewables in energy use to 20% and increasing energy efficiency by 20% by 2020. National governments are putting new policies in place to meet, exceed and otherwise implement these international commitments with policies ranging from tighter regulations and higher taxes to market-based instruments such as emissions trading.

Many of these existing or incoming policy commitments have direct implications for property investments. This is particular so for those relating to the energy performance of buildings. For example, the EU’s Energy Performance of Building Directive, adopted in 2002 requires buildings to be ‘classified’ (in a manner similar to household white goods, such as cookers and refrigerators) based on their relative energy performance. This policy is currently being implemented in the UK as well as across Europe and will assuredly impact on both tenant and investor attitudes to buildings of different environmental quality and therefore asset value and performance.

At UK national level, the government is now set on introducing a Carbon Reduction Commitment (CRC) from 2010. This is an obligatory emissions trading scheme covering large business and public sector organisations whose electricity use exceeds a certain amount and is designed to incentivise organisations, including property owners, to reduce their carbon emissions in the most efficient way.4

Similarly, the UK government is keen to see national policies applied to developments in local areas across the country. By and large these relate to what the land use planning regime can control, which is primarily new developments and refurbishments of existing stock. These generic policies take specific forms in different local authorities but tend to look at issues such as energy efficient building design and technologies, local area approaches to power and heating, reusing demolition materials, reducing on-site potable water use, and encouraging the use of renewable energy or, indeed, encouraging on-site energy generation. All of these (and many other) measures are changing the context in which property development and refurbishment processes are conducted in the UK.

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The usefulness of buildings lies at the heart of value in real estate investment. The old adage of 'location, location, location' is one expression of this, identifying as it does the utility conferred on a building by its relative location and attractiveness for the human activities of production, consumption and exchange. However, it is also true that the more able a building is of efficiently hosting the activities required of it, the better its utility is retained. Climate change will affect both the relative attractiveness of a given location for a given activity and the relative utility a building intrinsically provides.

For example, occupiers are likely to become increasingly concerned as the proportion of their overall occupation costs attributable to energy and natural resources increases. Therefore, buildings that are more energy efficient will prove more attractive. Given that the new Energy Performance Certificates will provide clear and tangible evidence on energy efficiency for both prospective owners and occupiers, buildings that fail to meet requisite standards will suffer decreased demand and become obsolete more quickly unless significant, costly and often technically complex improvements are made; either way, values and performance will be reduced. Similar circumstances may also extend to water resources and waste reduction and recycling provision.

Similarly, if fiscal disincentives are applied to road use through, say, local charging and taxation, this may encourage more occupiers to locate closer to public transport links and shun locations heavily dependent on the private motor car. In this scenario, property assets that are heavily reliant upon an increasingly congested road infrastructure for access may well suffer reduced demand, rents and values.

Finally, over and above any direct cost implications, high profile organisations will see embedded benefits in the enhanced or maintained reputation gained through occupying more sustainable buildings. As such, sustainable buildings attracting such occupiers are likely to provide more secure prospects for growth, value and overall investment performance.
As stated in the previous section, building utility lies at the heart of value in real estate investment. Higher rents tend to translate into higher capital values. If, over time, locations become more attractive in relative terms to occupiers, rents and values will also tend to rise relative to other locations. If locations become less attractive, the opposite will occur. Similarly, if buildings fail to cope with changing climatic conditions or meet the rising standards set by tenants or those evident in competing lettable premises, then their value and investment performance will suffer relatively.

As such, investors need to be conscious of shifts in occupier sentiment and look to own premises that match requirements if they want to attract and retain the best occupiers. By securing desirable or ‘future proofed’ buildings, property owners give themselves a better chance of securing stronger tenant covenants and longer lease terms, as well as reducing asset depreciation and periods when the building is un-let.

Clearly, given the above, environmentally superior buildings should, over time, provide an investor with higher value and better returns. Sadly, it is not easy for investors to simply implement an investment strategy based on this observation. Unlike investments in companies, which evolve and develop their activities continually, most of the properties investors can invest in are products of the time they were constructed; developed to the standards and regulations current at time of construction. Given that only 2% of new stock is added each year by development, the pool of assets a property investor can draw from at any given time is comprised of properties of different historic vintages which generally exhibit poorer environmental performance than contemporary standards would demand. As such, property investors are, for the most part, drawing from a pool of ‘legacy’ assets of relatively poor environmental quality. As such, and exaggerated by the heterogeneity of commercial buildings, each and every property investment will possess its own risks and opportunities for environmental improvement.

Property investors need to know – at a minimum – how vulnerable (or ‘future proofed’) assets are against current and likely changing occupier needs. Similarly, since more environmentally acceptable assets will prove more liquid and less risky, then investors need also to understand how assets will be viewed by other investors in the market.
Simply understanding how property values and investment performance might be affected by climate change and related policy and social reactions makes for ‘informed’ rather than ‘responsible’ property investors. Responsible investors need to go further than just appraising the financial effects of climate change on their property investments and act positively to contain or actively reduce the environmental impacts of their property holdings.

There are three phases in the life of a building when property owners can take action with respect to the physical built structure, namely, when the property is first developed, when it is refurbished, and, more generally through the general running of the property throughout its operational life. The first two of these listed phases typically occur when the investment is unencumbered by occupier considerations; the latter needs to be attempted whilst the property is occupied. This dramatically affects the scope for action.

Clearly, an investor can have substantial control over how a building is originally designed and developed. The easiness of intervention at this development stage probably explains why the vast bulk of literature on ‘green buildings’ relates to responsible construction and design. Similarly, albeit constrained by the existing frame of the building, most refurbishments offer substantial freedom to improve the environmental performance of buildings.

Green developments ensure that new structures do as little extra damage to the environment as possible. Despite being major energy consumers in their own right, new developments can eventually reduce climate change emissions by replacing inefficient structures. By contrast, refurbishments and property management have the potential to make existing structures more environmentally friendly and reduce emissions in the short term.

Arguably, though individually small in scale, the multiplicity of actions property managers can take to reduce the environmental impacts of the general stock of existing buildings might yet prove to be the source of greatest environmental benefit for property investors. Given that, by leasing a property, an owner is effectively selling a bundle of ‘occupation rights’ for an income stream, trying to improve the environmental performance of a building is less easy when it in occupation. The owner only retains direct control of common areas. The tenant is in almost total control of what happens in the let area. If the tenant is not sympathetic to taking action, then the scope for improving a building’s environmental impact can be limited.

Clearly, the landlord can engage with and encourage the tenant to take action, but there is no guarantee that the tenant will respond. However, in the ‘common areas’, which are material in properties like shopping centres, retail parks, mixed use office blocks, there are still many things that an owner can do, at low and no cost, to improve the environmental performance of assets through general property management.
For example, there are many ways in which property managers can reduce energy use. The simplest is the identification and cessation of lighting use in un-occupied space. Coupled with staff awareness and greater management attention, careful operational checks and maintenance regimes, the specification and use of more energy efficient equipment, notable efficiencies can be made at no cost. This type of intervention can and should be applied systematically across a property portfolio.

At a more technical level, the commissioning of service reports with recommendations from reliable professional consultants is perhaps the best way of establishing economic means to reduce carbon emissions through lighting control, boiler replacement, ventilation and air-conditioning upgrades, and understanding the associated costs and paybacks.

Ultimately, energy efficiency gains should be capable of translation into reduced operational costs for the building from which both owner and occupier can benefit. This should simultaneously strengthen the relationship between the two parties and perhaps cement a profitable long term association. Clearly, one way in which landlords and tenants can work together more effectively to better manage the environmental impacts of property, is through agreeing a ‘green lease’. Here both sides would agree at the outset of the lease to undertake certain actions and reporting environmental data to each other.

Whatever the objectives and targets, be they strategic or detailed, at portfolio or individual property level, the collection of baseline environmental performance data is the foundation to any responsive action and to be able to assess any risks or opportunities from climate change or policy. It is only with clear and reliable baseline data that interventions can be monitored and compared to establish what benefits might or have accrued.
The previous sections have shown that climate change has many financial implications for the current and future value of real estate investments. These result from a variety of sources including the physical impacts of a changing climate, tighter legislation and policy regimes to control and reduce energy use, and the changing attitudes of tenant and investors towards properties of varying environmental standards. All of these will impact the utility of buildings, both in absolute terms but also relative to each other. It is the fiduciary duty of both trustees and their real estate fund managers to understand these impacts on value.

However, ‘responsible’ investors will go further than simply organising their investment strategies in the light of this knowledge. They will take positive action, through the development, refurbishment and day-to-day management of property assets to reduce the environmental impacts of their property portfolios.

In light of this, trustees need to work with their advisors to develop clear policy statements and objectives with respect to how they should manage the environmental impacts of their buildings. By doing so, they will provide impetus and give a clear mandate to their managers to implement such measures.
The key message for trustees from the above is that sustainable characteristics are being increasingly demanded in property assets. As such, they need to recognise that a clear focus on the nature of the assets included in their portfolios, and an active approach towards their responsible management will be crucial to maintaining the ongoing viability of assets and, ultimately, investment performance going forward.

### How are the direct impacts of climate change and related changes in policy and regulation being taken into account in the buy, hold and sell decisions being made on properties; development, redevelopment and refurbishment of properties; and management and leasing of properties?

Trustees should be satisfied with seeing social, environmental and economic considerations of climate change embedded and genuinely contributing to standard investment appraisal processes. Evidence to show similar incorporation into day to day operational matters and occupier liaison as well as leading, supporting and challenging project teams and suppliers should give further comfort.

### What actions is the property fund manager taking to reduce the environmental footprint of the properties already held in the portfolio, and how do these actions relate to the need to continue to provide competitive returns?

Trustees should be satisfied with seeing activities aimed at establishing and maintaining accurate data on the key impact areas of energy and water consumption and waste production and management as a prerequisite for the identification of improvement targets. The elimination of inefficiencies and implementation of simple no-cost and low cost interventions represents good management practice and will assist in reducing overheads and thus contribute to improving net income and returns. Trustees should be satisfied that there is adequate disclosure on the environmental performance of buildings and that relevant energy standards are met.
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<td>What evidence can the property fund manager provide of reducing environmental impacts from its managed portfolio and development activities in recent years, and what actions have been principally responsible for reducing those impacts?</td>
<td>A track record of data collection and analysis, typically seen in the form of benchmarking across individual portfolios or competing portfolios, should provide comfort, as would statistics to confirm the benefits of implementing actions.</td>
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<td>What policies does the property fund manager have in place to ensure that those supplying goods and services to the property portfolio are doing so in a responsible manner? How is performance of suppliers monitored?</td>
<td>The degree to which supply chain management is undertaken can vary enormously commensurate with the range of manager's activities. However, trustees should at least be satisfied that an impact assessment and a resulting policy covering key suppliers together with a process for ensuring that policy is implemented.</td>
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<td>How active is the property fund manager in dialogues within the property industry and with government to develop appropriate awareness and action to reduce the environmental impact of buildings?</td>
<td>Active involvement of the manager with industry organisations and focus groups is clear evidence of a desire to learn and share experiences and the emphasis placed on specific training and learning within the organisation will be reflected in awareness and knowledge.</td>
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<td>Given the inevitability of some impacts from climate change, how is the property fund manager adapting both its stock selection processes and the management of its assets to cope with these changed climate conditions?</td>
<td>A specific strategy aimed at accepting and dealing with any such inevitable impacts ahead of critical impact should provide some comfort.</td>
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Questions Concerned Trustees should ask of themselves

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<td>Do we, as trustees of a fund, understand enough about the issues of climate change and how it affects our commercial property assets?</td>
<td>Trustees should consider whether they are encouraging and pursuing opportunities to engage in and contribute to dialogue on climate change issues, and whether they are we sufficiently open minded to accept the potential impacts on their funds.</td>
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<td>Is the way that we are rewarding our fund managers conducive to encouraging them to manage our funds in an environmentally responsible way?</td>
<td>Trustees should consider that the medium to long term time horizons over which interventions to address climate change are set may not be consistent with the short term performance horizons typically placed on fund managers.</td>
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About IIGCC
The Institutional Investors Group on Climate Change (IIGCC) provides institutional investors in Europe with a voice on climate change and engages with government, companies and investors on addressing the long-term risks and opportunities associated with climate change.

The IIGCC’s objectives are:
– to encourage public policy solutions that ensure an orderly and efficient move to a low carbon economy and support measures for adaptation to unavoidable climate change which are consistent with long-term investment objectives.
– to encourage a pro-active approach amongst asset owners and asset managers on climate change in order to preserve and enhance long-term investment values.
– to improve company disclosure/performance on climate change.

The IIGCC currently has over 45 members with combined assets under management of around EUR4 trillion.

Further information
Further detailed information on the debate, the risks and what actions can and have been taken can be obtained from the following:
– www.iigcc.org
– www.ipcc.ch
– www.ipf.org.uk
– email info@impax.co.uk.

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