Real Assets: Driving Change for the Long Term

About the authors

Etienne Dupuy
Managing Director -
Asset Management, Europe

Michael Kirby
Managing Director -
Asset Management, US

Sze Ann Ong
Managing Director -
Asset Management, Asia Pacific

Summary
Environmental, social and governance (ESG) considerations are influencing more and more investment decisions. In the case of real assets, which can be significant contributors to global risk, the importance of these issues is undeniable.

In this paper we explore the effective identification and management of ESG risks around real assets, focusing in particular on real estate. We highlight an investment process that encompasses all three dimensions – E, S and G – and which encourages what we call "authentic" ESG integration.

We describe how such an approach supports the cause of sustainable capitalism by aiming to deliver long-term benefits for investors and other stakeholders. From the perspective of real estate, we explain how it fully recognises that the places where we live and work are uniquely vital to the future of our planet. Finally, we outline how it underscores our belief that investment managers are the principal agents of positive, ESG-led change.

> "The places where we live and work are uniquely vital to the future of our planet."

Real assets and ESG

An ever-growing body of research shows that real assets are central to some of the biggest challenges facing humanity. Crucially, they are central both to creating these challenges and to addressing them. Carbon emissions and climate change, the impact of residential and commercial property development, the far-reaching effects of deforestation – all provide arguably unrivalled opportunities to demonstrate the benefits of identifying and effectively managing ESG risks.

The environmental dimension of ESG is usually to the fore in these settings. Environmental concerns are often quantifiable and, as such, tend to capture attention. The panel below features just a few examples.

Importantly, the social and governance aspects of real assets are now also attracting overdue recognition. Like their environmental counterparts, they can play a vital part in helping companies manage risk, improve transparency and enhance long-term profitability.

> "Real assets provide arguably unrivalled opportunities to demonstrate the benefits of identifying and effectively managing ESG risks."

Real estate and ESG

According to the United Nations Environment Programme (UNEP), tenants in buildings consume around 60% of all of the world's electricity, 40% of energy, 40% of resources and 25% of water. These figures alone make clear why the places where we live and work are uniquely vital to the long-term future of our planet and why an ongoing shift from "brown" to "green" buildings is imperative with a change on how tenants live and use their real estate assets.

As the illustration below shows, investors have driven such a move. A 2015 analysis of more than 2,000 studies into the links between ESG and financial performance revealed real estate as one of three sectors – along with fixed income and emerging market equities – to exhibit "a disproportionately positive response to integrating ESG criteria"[4].

Despite progress to date, the challenge of reducing buildings' contribution to global warming remains significant. The Intergovernmental Panel on Climate Change recently identified property as an area requiring "rapid and far-reaching transitions… on an unprecedented scale" if the Paris Agreement target of limiting the increase in global average temperatures to 1.5ºC above pre-industrial levels is to be realised[5]. UNEP has even described the managers of global real estate assets as "one of the most important decision-making groups on Earth".

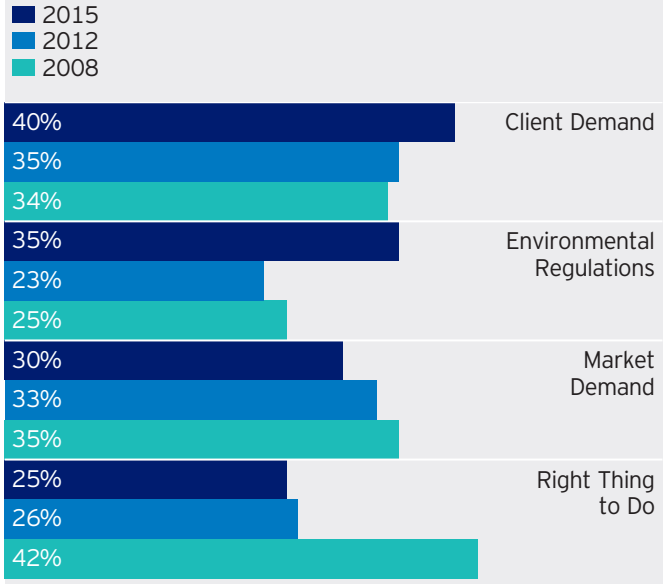
Real assets and the environment

Research continues to underline real assets' role in the global environmental challenges confronting humanity. Below are some of the latest findings.

- **30%** – the share of CO2 produced by buildings worldwide each year. This makes buildings the single largest contributor to global greenhouse gas (GHG) emissions.
  Source: United Nations Principles for Responsible Investment, 2016[1]
- **4.8 gigatons** – the average amount of CO2 generated annually by deforestation between 2015 and 2017. This is higher than the CO2 produced by the entire European Union during the same period.
  Source: World Resources Institute, 2018[2]
- **53.5 gigatons** – the amount of CO2 produced globally in 2017. An increase of 0.7 on the previous year, this marked a record high and ended a three-year period in which emissions did not rise.
  Source: United Nations Environment Programme, 2018[3]

Key drivers for green developments

Published by the World Green Building Council, the World Green Building Trends reports survey the main motivations behind companies' development of sustainable real estate. Client demand and environmental regulations have exhibited the sharpest rises in recent years.



Source: World Green Building Council/Dodge Data & Analytics: World Green Building Trends 2016; findings based on a survey of more than a thousand architects, engineers, owners, contractors and specialists/consultants worldwide

> "The United Nations has described the managers of global real estate assets as 'one of the most important decision-making groups on Earth'."

An "authentic" approach to ESG integration in real estate
There are many criteria for identifying a "sustainable" building. As we have seen, although environmental considerations have tended to dominate, every element of ESG should be incorporated into the investment process.

Applying this approach, we might define a sustainable property in terms of broadly overarching fiduciary objectives. It should lower costs, improve financial performance, achieve competitive advantage and – in keeping with responsible investing's wider ambitions – somehow contribute to a better world.

As the panel below explains in detail, such a definition encompasses multiple facets. This holistic view encourages engagement with a variety of stakeholders and stands in stark contrast to a one-dimensional reliance on headline environmental data. It is key to what we call "authentic" ESG integration[6].

"This holistic view stands in stark contrast to a one-dimensional reliance on headline environmental data."

Multi-faceted ESG integration by Invesco Real Estate

The Invesco Real Estate (IRE) team takes into account the following ESG considerations when identifying and managing sustainable properties:

Environmental
- Measuring and regularly reporting buildings' energy, emissions, water and waste levels
- Evaluating and implementing low-cost measures, capital improvements and new technologies to improve asset performance and advance the built environment
- Using rating schemes to evaluate buildings' energy efficiency
- Evaluating the feasibility of pursuing third-party certification through schemes such as BREEAM, LEED and Energy Star
- Taking a managed approach to the procurement of energy in deregulated energy markets

Social
- Providing tools and resources to engage property managers on sustainability issues
- Encouraging sustainable practices by tenants through engagement tools relevant to each property type
- Providing services and amenities (e.g., gyms, bicycle storage areas and green spaces) at properties to encourage tenants and occupants to lead healthier lifestyles
- Providing employee training on ESG issues
- Engaging with communities on sustainability-related issues
- Supporting diversity and inclusion

Governance
- Leading the real estate industry in the implementation of ESG practices and the integration of sustainability considerations into investment decisions
- Transparently disclosing ESG strategy and performance to investors through reporting frameworks such as GRESB (Global Real Estate Sustainability Benchmark), GRI (Global Reporting Initiative), INREV (European Association for Investors in Non-Listed Real Estate Vehicles), CDP (Carbon Disclosure Project) and UN PRI (United Nations Principles for Responsible Investment)
- Ensuring that our employees adhere to the highest standards of honest and ethical conduct

Source: Invesco

GRESB: a benchmark for sustainable real estate investment
One of the most notable investment-related initiatives to emerge in recent years is GRESB, the Global Real Estate Sustainability Benchmark. GRESB provides the basis for the reporting, scoring and peer ranking of IRE's ESG management and policies.

GRESB assumes a holistic approach to ESG integration, evaluating factors including resilience to environmental challenges, the health and wellbeing of tenants and occupants and the levels of stakeholder engagement achieved by investment managers. In 2018 it assessed more than 900 real estate funds, representing nearly 79,000 assets across 64 countries. It has ranked several Invesco Real Estate (IRE) funds as regional and/or sector leaders.

The illustration below shows GRESB's role in IRE's property improvement cycle. It is a crucial component of our continuous efforts to identify and manage sustainable real estate with a view to delivering long-term benefits.

IRE's property improvement cycle
The effective management of ESG risks is an ongoing process. IRE leverages a range of insights and expertise for each of its sustainable properties, working with data providers, property managers, rating and certification organisations, tenants, occupants and other stakeholders to ensure continuous improvement.

Benchmark
Energy, Water, and Waste (Consumption & Cost):
- Current & accurate data
- Establish baseline

Monitor
- Check for errors, omissions, operational changes, leaks, usage increase, etc

Report
Quarterly Sustainability Performance Indicators:
- Compare to self over time
- Compare to peers
- Provide context for increases

GRESB
- Consumption decreases
- Data coverage

Improve
Identify opportunities:
- Sustainability Policies & Reference Guides
- Checklists
- Work with PMCs

Implement:
- Evaluate proposals
- Incentives
- Assist PMCs

Certify
- Energy Ratings & Certification (annually)
- Green Building Certifications

NOI
- Improve performance
- Reduce cost
- Add value

Source: Invesco

"GRESB is a crucial component of our continuous efforts to identify and manage sustainable real estate with a view to delivering long-term benefits."

Investment managers as agents of positive change
ESG investment decisions should be shaped not only by data but also by stakeholder engagement and a forward-thinking mindset. Such an approach marks out "authentic" investment managers whose approach to real estate – and to real assets in general – is underpinned both by a desire to bring about positive change and by an obligation to protect and grow investors' wealth.

Active ownership is key here. Studies and experience alike have repeatedly shown that investment managers tend to get results when they take the lead in trying to reform or improve ESG policies and practices. This might be achieved in a number of ways, from insisting on green clauses in lease contracts to acting on the wealth of "actionable" data now available via assessment tools.

It can also be achieved through interacting with the people who live or work in the properties that make up a portfolio, as well as the broader communities in which those properties exist. Sustainable real estate, after all, is about more than countering a global threat: it is also about individuals. The choices that tenants and occupants make can contribute massively to an asset's long-term performance, which is why – as explained in more detail below – active ownership should extend to ESG education and buy-in.

Tenants, occupants and the importance of buy-in

An "authentic" approach to ESG-led real estate investing requires engagement with a variety of stakeholders. Tenants and occupants are in many ways the most significant of these, since how they use a building goes a long way towards determining its performance.

Engagement with these groups can take numerous forms. To ensure that they are able to fully contribute to sustainability initiatives, for example, it is essential to educate tenants and occupants on how a property makes use of green technology. IRE often provides Green Living Guides and Sustainable Office Handbooks and Checklists; in addition, regular surveys gather important information and help shape policies and practices going forward.

Gamification can also encourage positive behaviour. For instance, rather than lecturing tenants and occupants on the importance of saving energy, IRE recently devised inter-office competitions to reduce electricity consumption in commercial buildings.

"Investment managers tend to get results when they take the lead in trying to reform or improve ESG policies and practices."

Conclusion
Real assets are major contributors to global risk. Effective ESG integration offers a vital means of identifying and managing that risk. We believe that what we call an "authentic" approach to this issue should be holistic, forward-looking and proactive; that it should make best use of data and dialogue alike; that it should foster transparency, accountability and pride of ownership; and that it should be rooted in a long-term outlook that prizes stewardship over speculation.

Such an approach can work only if every element of ESG is taken into account. Given the understandable emphasis placed on the threat posed by environmental phenomena such as climate change, this is sometimes too easily forgotten. Real estate and other real assets can give rise to highly significant social gains, while good governance is a cornerstone – if not the whole foundation – of responsible and sustainable investing.

It is also essential to acknowledge that the people who buy, manage and sell assets are uniquely placed to bring about positive change. They can apply a broader perspective, see beyond the short-term appeal of greenwashing and adopt a high-touch philosophy that takes full note of the more "human" dimensions of investment. As the meaningful incorporation of ESG factors assumes ever-greater importance, investment managers should be the primary providers of momentum – not just in real estate but across all asset classes and sectors.

"As the meaningful incorporation of ESG factors assumes ever-greater importance, investment managers should be the primary providers of momentum."

Boulevard Haussman, Paris, France

References and suggested reading

- Allen, J, Spengler, J, MacNaughton, P, Santanam, S, and Satish, U: The Impact of Green Buildings on Cognitive Function, 2015
- Boubekri, M, Cheung, I, Reid, K, Kuo, N, Wang, C, and Zee, P: Impact of Windows and Daylight Exposure on Overall Health and Sleep Quality of Office Workers – A Case-Control Pilot Study, 2013
- Brounen, D, and van der Spek, M: Sustainable Insights in Private Equity Performance: Evidence From the European Non-Listed Real Estate Fund Market, 2017
- Bryson, J, and Lombardi, R: Balancing Product and Process Sustainability Against Business Profitability: Sustainability as a Competitive Strategy in the Property Development Process, 2009
- Cajias, M, Geiger, P, and Biernert, S: Green Agenda and Green Performance: Empirical Evidence for Real Estate Companies, 2012
- Chegut, A, Eichholtz, P, and Kok, N: The Value of Green Buildings: New Evidence From the United Kingdom, 2011
- CitySavvy: "Don't forget, people are also polluters", 12 March 2018
- Davis Langdon: Cost of Green Revisited: Re-Examining the Feasibility and Cost Impact of Sustainable Design in the Light of Increased Market Adoption, 2007
- Eichholtz, P, Kok, N, and Quigley, J: Doing Well By Doing Good? Green Office Buildings, 2013
- Eichholtz, P, Kok, N, and Quigley, J: The Economics of Green Building, 2013
- Eichholtz, P, Kok, N, and Younder, E: Portfolio Greenness and the Financial Performance of REITs, 2012
- Friede, G, Busch, T, and Bassen, A: ESG and Financial Performance: Aggregated Performance From More Than 2,000 Empirical Studies, 2015
- Hasselgren, U, Saynay, B, and Stein, H: Lost in Translation: In Search of Authenticity in ESG Integration, 2018
- IGCC: Special Report: Global Warming of 1.5ºC, 2018
- IGCC, IIGCC, INCR Ceres, RICS, UNEP and UN PRI: Sustainable Real Estate Investment: Implementing the Paris Climate Agreement, 2016
- LaBuhn, R: A Preliminary Study of the Effects That Four LEED Gold Certified Elementary Schools Have on Student Learning, Attendance and Health, 2010
- McAllister, P, and Fuerst, F: Eco-Labelling in Commercial Office Markets: Do LEED and Energy Star Offices Obtain Multiple Premiums?, 2011
- McAllister, P, and Fuerst, F: Green Noise or Green Value? Measuring the Effects of Environmental Certification on Office Values, 1999-2008, 2011
- UNEP: "CO2 emissions on the rise for the first time in four years, UN agency warns", 27 November 2018
- Olson, S, and Kellum, S: The Impact of Sustainable Buildings on Educational Achievements in K-12 Schools, 2003
- Saynay, B, and Stein, H: Proxy Voting: The Hallmark of Active Ownership, 2017
- Singh, A, Syal, M, Grady, S, and Korkmaz, S: Effects of Green Buildings on Employee Health and Productivity, 2010
- Solar Today: 'Daylighting and productivity at Lockheed', May/June 1995
- UNEP: Fiduciary Duty in the 21st Century, 2015
- UN PRI: The Environmental and Financial Performance of Buildings, 2012
- Vigeo Eiris: Sustainable Development Goals: Challenges and Perspectives for Real Estate Companies With the 2030 Agenda, 2017
- World Economic Forum: Environmental Sustainability Principles for the Real Estate Industry, 2016
- World Economic Forum: "What if deforestation were a country?", 22 November 2018
- World Green Building Council: Health, Wellbeing and Productivity in Retail: The Impact of Green Buildings on People and Profit, 2016
- World Green Building Council: World Green Building Trends 2016, 2016
- World Resources Institute: "By the numbers: the value of tropical forests in the climate-change equation", 4 October 2018

1 See UN PRI: Sustainable Real Estate Investment: Implementing the Paris Climate Agreement, 2016.

2 See World Resources Institute, "By the numbers: the value of tropical forests in the climate-change equation", 4 October 2018, and World Economic Forum, "What if deforestation were a country?", 22 November 2018.

3 See UNEP, "CO2 emissions on the rise for the first time in four years, UN agency warns", 27 November 2018.

4 See Friede, G, Busch, T, and Bassen, A: ESG and Financial Performance: Aggregated Performance From More Than 2,000 Empirical Studies, 2016.

5 See Intergovernmental Panel on Climate Change, Special Report: Global Warming of 1.5ºC, 2018.

6 This concept was first introduced in an Invesco white paper entitled Lost in Translation: In Search of Authenticity in ESG Integration, published in 2018.

Investment Risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested. Property and land can be difficult to sell, so investors may not be able to sell such investments when they want to. The value of the property is generally a matter of an independent valuer's opinion.

Important information

This document is for Professional Clients only in Dubai, Continental Europe, Ireland and the UK, for Qualified Investors in Switzerland, for Institutional Investors only in the United States, Australia and Singapore, and for Professional Investors only in Hong Kong and in Japan as defined under the Financial Instruments and Exchange Law of Japan. In Canada, the document is intended only for accredited investors as defined under National Instrument 45-106. It is not intended for and should not be distributed to, or relied upon by, the public or retail investors. Please do not redistribute this document.

For distribution of this document, Continental Europe is defined Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Italy, Luxembourg, Netherlands, Norway, Spain and Sweden.

The views expressed herein are those of Invesco Real Estate professionals based on current market conditions and other factors and are not necessarily those of other Invesco professionals. The views expressed herein do not refer to any specific Invesco product. Target figures, where mentioned, are not the actual allocations of a specific Invesco product. Opinions and forecasts are subject to change without notice. Past performance is not a guide to future returns.

This document contains general information only and does not form part of any prospectus. It is not an invitation to subscribe for shares in a fund nor is it to be construed as an offer to buy or sell any financial instruments. As with all investments, there are associated inherent risks. The information contained in this document may not have been prepared or tailored for any audience. It does not take into account individual objectives, taxation position or financial needs. Nor does this constitute a recommendation of the suitability of any investment strategy for a particular investor. This should not be considered a recommendation to purchase any investment product. This does not constitute a recommendation of any investment strategy for a particular investor. Investors should consult a financial professional before making any investment decisions if they are uncertain whether an investment is suitable for them.
You may only reproduce, circulate and use this document (or any part of it) with the consent of Invesco. This material may contain statements that are not purely historical in nature but are "forward-looking statements." These include, among other things, projections, forecasts, estimates of income, yield and return. These forward-looking statements can be identified by the use of forward looking terminology such as "may," "will," "should," "expect," "anticipate," "project," "estimate," "intend," "continue," "target," "believe," the negatives thereof, other variations thereon or comparable terminology. All forward-looking statements included herein are based on information available on the date hereof and Invesco assumes no duty to update any forward-looking statement (except as required by law). They are based upon certain beliefs, assumptions and expectations, some of which are described herein. These beliefs, assumptions and expectations can change as a result of many possible events or factors, not all of which are known to us. Actual events are difficult to predict, are beyond the issuers' control, and may substantially differ from those assumed. Accordingly, there can be no assurance that estimated returns or projections can be realized, that forward-looking statements will materialize or that actual returns or results will not be materially lower than those presented. You should not place undue reliance on these forward-looking statements.

This document is issued in:

- **Australia** by Invesco Australia Limited (ABN 48 001 693 232), Level 26, 333 Collins Street, Melbourne, Victoria, 3000, Australia which holds an Australian Financial Services Licence number 239916.
- **Austria** by Invesco Asset Management Österreich – Zweigniederlassung der Invesco Asset Management Deutschland GmbH, Rotenturmstrasse 16-18, A-1010 Wien.
- **Belgium** by Invesco Asset Management SA Belgian Branch (France), Avenue Louise 235, B-1050 Bruxelles.
- **Canada** by Invesco Canada Ltd., 5140 Yonge Street, Suite 800, Toronto, Ontario, M2N 6X7, Canada.
- **The Czech Republic** by Invesco Real Estate s.r.o., Praha City Center, Klimenstska 46, 110 02 Prague 1, Czech Republic.
- **Denmark, Finland, and Norway** by Invesco Asset Management SA, 18, rue de Londres, F-75009, Paris, France.
- **Dubai** by Invesco Asset Management Limited, PO Box 506599, DIFC Precinct Building No 4, Level 3, Office 305, Dubai, United Arab Emirates. Regulated by the Dubai Financial Services Authority.
- **France** by both Invesco Asset Management S.A., 18, rue de Londres, F-75009, Paris, France authorised and regulated by the Authorité des marchés financiers in France, and Invesco Asset Management Limited French Branch, 18, rue de Londres, F-75009, Paris, France.
- **Germany** by Invesco Asset Management Deutschland GmbH, An der Welle 5, D-60322 Frankfurt am Main.
- **Hong Kong** by Invesco Hong Kong Limited 景順投資管理有限公司, 41/F, Champion Tower, 3 Garden Road, Central, Hong Kong.
- **Italy** by Invesco Asset Management SA Sede Secondaria, Via Bocchetto 6, 20123 Milan, Italy.
- **Ireland** by Invesco Real Estate Management S.a.r.l., President Building, Avenue JF Kennedy 37A, L - 1855 Luxembourg.
- **Japan** by 1) Invesco Asset Management (Japan) Limited, Roppongi Hills Mori Tower 14F, 6-10-1 Roppongi, Minato-ku, Tokyo 106-6114; Registration Number: The Director-General of Kanto Local Finance Bureau (Kin-sho) 306; Member of the Investment Trusts Association, Japan and the Japan Investment Advisers Association, and/or 2) Invesco Global Real Estate Asia Pacific, Inc., Roppongi Hills Mori Tower 14F, 6-10-1 Roppongi, Minato-ku, Tokyo 106-6114; Registration Number: The Director General of Kanto Local Finance Bureau (Kin-sho) 583; Member of the Investment Trusts Association, Japan and Type II Financial Instruments Firms Association.
- **Luxembourg** by Invesco Asset Management S.A., 18, rue de Londres, F-75009 Paris, France and Invesco Real Estate Management S.a.r.l., President Building, Avenue JF Kennedy 37A, L - 1855 Luxembourg.
- **The Netherlands** by Invesco Asset Management S.A. Dutch Branch, Vinoly Building, Claude Debussylaan 26, 1082 MD, Amsterdam, The Netherlands.
- **Singapore** by Invesco Asset Management Singapore Ltd, 9 Raffles Place, #18-01 Republic Plaza, Singapore 048619
- **Spain** by Invesco Asset Management S.A. Sucursal en España, C/Goya, 6, 3rd floor. 28001 - Madrid. Spain.
- **Sweden** by Invesco Asset Management SA (France) Swedish Filial, c/o Convendum, Jakobsbergsgatan 16, Box 16404, SE-111 43 Stockholm, Sweden.
- **Switzerland** by Invesco Asset Management (Schweiz) AG, Talacker 34, CH – 8001 Zürich, Switzerland.
- **The UK** by Invesco Real Estate, a division of Invesco Asset Management Limited, Perpetual Park, Perpetual Park Drive, Henley-on-Thames, Oxfordshire RG9 1HH. Authorised and regulated in the UK by the Financial Conduct Authority.
- **The United States of America** by Invesco Advisers, Inc., Two Peachtree Pointe, 1555 Peachtree Street N.E., Atlanta, Georgia 30309, USA.

GL437/64830-v1/PDF/250919