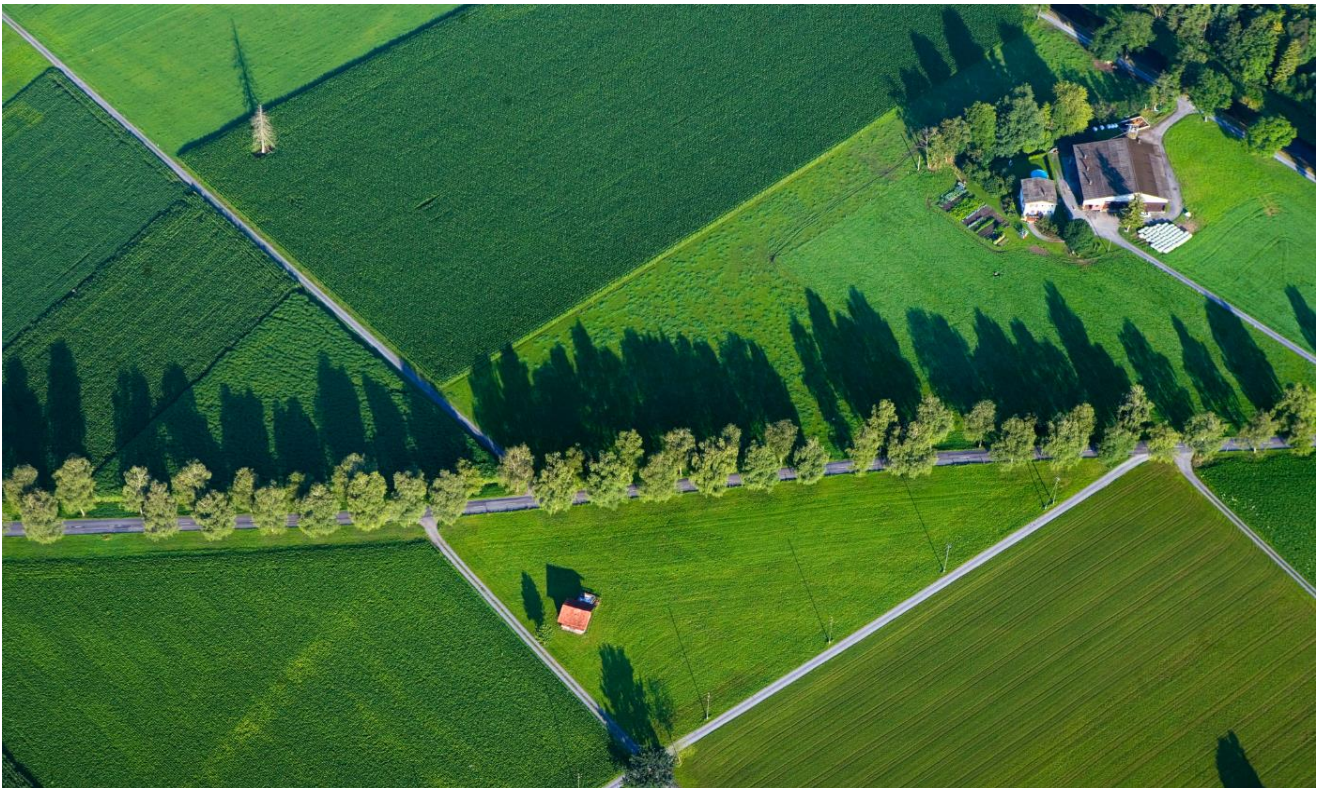


Real estate and sustainability: *investing for returns and the future*

UBS Global Asset Management, Global Real Estate



Investors and businesses increasingly incorporate information on environmental issues into their occupational and investment strategies. With energy efficient buildings providing a potential hedge against volatile energy prices and preferences of occupiers and investors shifting, the sustainable buildings sector may provide a key theme for investors looking to enhance the performance of their real estate portfolios.

Investment decisions

Investors and businesses appear to be increasingly incorporating information on environmental, social and governance performance into their occupational and investment underwriting decisions. From an environmental perspective, the real estate sector is of specific interest to policymakers and governments given that construction and occupational activities account for an estimated 40% of annual energy consumption and up to 30% of all energy-related greenhouse gas (GHG) emissions across the globe. Importantly, residential and commercial buildings represent an ever-increasing share of global energy consumption. This trend is likely to accelerate as emerging markets gradually shift away from capital intensive growth towards service-based economies which utilize office, logistics and retail buildings more intensively.

With governments and supranational organizations increasingly concerned about the potential impact of climate change on future generations and the sustainability of global economic growth, the sector remains an easy target to achieve energy savings and carbon emission reductions via increased regulation, disclosure requirements and other restrictions on activity. Investors at the forefront of these changes may be in a strong position to enhance performance of their real estate portfolios.

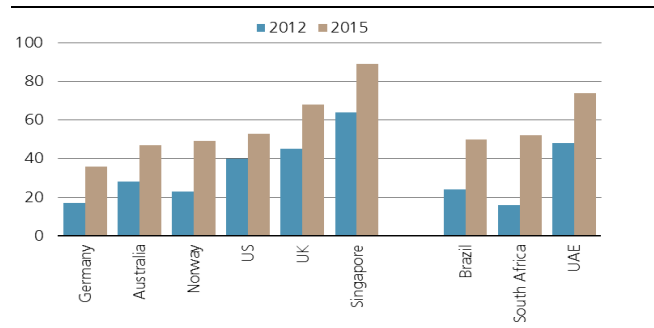
Global growth of sustainable buildings

Although the stock of energy-certified buildings available to occupiers and investors remains relatively small in most real estate markets, the sector has seen rapid growth in recent years. In the US market, for example, the number of commercial buildings rated with an Energy Star by the US Environmental Protection Agency and the Department of Energy has more than tripled since 2007. These buildings now represent around 4% of the total US commercial stock by floor space. By value, the stock of energy star-rated buildings is a little higher. In the UK, estimates from IPD's quarterly database and Eco-Portfolio Analysis Service (EcoPAS) Universe suggest that around 1% of buildings have received Building Research Establishment Environmental Assessment Methodology (BREEAM) ratings.

Studies in sustainability and green building trends have revealed a greater awareness and willingness by the public and private sectors globally to adopt sustainable construction practices and to pursue energy efficiency of buildings in recent years. More than half the 800 organizations across 65 countries surveyed by McGraw Hill Construction reported that they were planning for more than 60 percent of their work to be certified under a recognized green rating system or built to qualify for certification by 2015 compared to 28% in 2012 and 13% in 2009. Importantly, these green building market trends are not isolated to one region, with the percentage of

firms with a substantial amount of green work rising across developed and emerging markets (Chart 1)

Chart 1: Percentage of firms with more than 60% of construction work certified under a recognized green rating system or built to qualify for certification



Source: McGraw Hill Construction, World Green Building Trends, 2011

Green rent and price premiums

Analyzing the growth of energy-certified office buildings in the US market (buildings with an energy star rating and those rated for sustainability by the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system), recent academic research has found that green properties in CBD locations of gateway cities have generally commanded higher rents, reduced leasing downtime and increased tenant retention compared to their non-certified counterparts. These rental premiums range from 5–20% and occupancy levels from two to eight percentage points higher.

Unsurprisingly, where the data is available, measured characteristics of energy efficiency and sustainability are found to be capitalized into the price with certified property assets selling at higher prices than their comparable conventional buildings. Higher levels of energy efficiency are also found to be associated with higher rent and price premiums. Notably, these premiums appear to remain intact in a regression setting by using a panel set of building assets to control for other quantifiable factors that are also likely to affect asset pricing, such as location, lease and building quality and local economic market conditions. In the UK and other developed markets the existence of such panel sets is limited but growing as valuers and data providers begin tracking less tangible factors that may also influence asset pricing, including energy efficiency, proximity to public transit, occupier amenities and sustainability.

Interestingly, despite the sharp increase in the supply of these buildings in the US (albeit from a low base) and substantial contraction in the demand for commercial space in the aftermath of the financial crisis, it appears that these premiums have persisted relative to other comparable high-quality property assets. The resilience to wider

macroeconomic and financial volatility and supply issues suggests that the demand for green buildings from occupiers and investors may become more entrenched as the market matures, market awareness and transparency improve, and regulatory and disclosure requirements are strengthened. Traction in the US and global economic recovery may also aid the sector as some occupiers become less cost conscious, businesses begin re-focusing on expanding revenues and income recovery takes place.

Enhancing performance

For investors, additional build costs are incurred in bringing refurbished assets or new buildings to the market with certain energy efficiency ratings. These costs tend to increase with higher energy and sustainability ratings. In some cases, costs increase exponentially with the energy label or certification rating. However, the benefits of higher cash flows and valuations that are attributable to these green labels may be more than a justification of these additional costs.

Although systematic cost-benefit analyses of the investment returns from energy certifications and green labels at the property level are limited and the development of listed and unlisted green indices by data providers such as FTSE, NAREIT and IPD remain in their early stages of development, a recent study finds that the financial performance of Real Estate Investment Trusts (REITs) is positively related to the share of energy-certified properties in their portfolios. Financial variables which focus on the returns earned by investors such as the Return on Assets (RoA) and Return on Equity (RoE) are found to improve as the share of energy-certified buildings on the balance sheet of a REIT increases. Importantly, these variables are found to increase even after controlling for other factors that may also be positively related to both performance and the share of green labelled assets in a REIT portfolio. This preliminary finding tends to suggest that the additional benefits of attaining an energy certification or sustainable rating for a commercial building provide a favorable return on the additional capital outlays incurred in delivering these products to the market for investors.

Interestingly, the study also finds that the share of a REIT's portfolio that achieves an energy efficient or sustainable label is inversely related to the market beta of the listed property company. A higher green portfolio tends to reduce the volatility of a REIT's market performance with respect to the whole equity market. Presumably this is achieved by reducing the link with the wider macroeconomic and credit conditions. For example, this may occur because green buildings tend to have higher and more stable occupancy levels and are therefore less exposed to the cyclical growth swings. An alternative explanation is that green buildings are less exposed to the volatility of energy prices which could potentially contribute to below-trend economic growth and recessions. This would suggest that those investors that are

looking to reduce the volatility of their portfolios may wish to invest in those property companies with higher percentages of green rated buildings on their balance sheets. Conversely, those investors that are looking to take on more market risk and boost absolute performance, for example during a rising equity market, may be better off targeting those REITs where the managers have little interest in attaining energy efficient and sustainable ratings for their buildings and/or purchasing properties from investors that do not currently incorporate sustainable issues into their strategies. For these investors, performance could then be boosted by refurbishing the properties to achieve appropriate energy efficient ratings.

Social benefits and occupier amenities

For occupiers, the willingness to pay higher rents is related to the lower operational costs from occupying green-rated buildings, for example, through energy reduction and water conservation. However, there are also less quantifiable benefits related to corporate social responsibility that some businesses may take into account in their spacing and occupational requirements and amenities buildings provide to the employees. These additional benefits may feed into an enhanced reputation and better loyalty from staff, clients and customers. Employee recruitment and retention may be enhanced. In turn, this may support stronger headline sales, revenue growth and profitability. Presumably, private sector occupiers would only pay these higher rents if the expected benefits outweighed the higher rental costs.

Green conclusions

Occupiers and investors are being forced to account for their activities on a more sustainable basis as increased regulatory and disclosure requirements come into effect. High energy prices may also be playing a role in these occupational and investment decisions. With energy efficient buildings potentially providing a hedge against volatile energy prices and preferences of both occupiers and investors gradually shifting with respect to sustainability issues, rental and price premiums may become more entrenched and substantial.

In equilibrium, we would expect these rental and valuation premiums to disappear as market penetration of energy-certified buildings peaks. Instead, regulatory and market forces will ensure that non-energy rated buildings will trade and lease at discounts to their green counterparts. However, in the near-to-medium-term with core real estate yields approaching pre-crisis levels, product differentiation and asset selection will become increasingly important in driving outperformance. Already, evidence from the US market tends to suggest the market appears to be placing a lower risk premium on more efficient property assets. The energy efficient and sustainable buildings sector may be a key theme for investors to enhance performance, reduce volatility of their real estate portfolios and outperform national and regional benchmarks.



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