The Opportunity of the Horizon:

Green Finance in Real Estate and Hospitality

November 2021

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AHV Associates

- Co-founded in 2001 by Andrew Harrington, AHV Associates LLP (AHV) is a London-based boutique investment bank focused on advising private companies across a range of M&A and capital raising assignments.
- AHV specializes in hospitality and has worked with companies that own and/or operate hotels, apart-hotels, serviced apartments, hostels and mixed-use resorts.

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- Management buyouts

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- Strategic options assessment
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Capital Raising

- Corporate debt / equity
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Overview

Summary of Key Points

What is the need for this report?

- Sustainability has become a core requirement for investors and we have been seeing an ever increasing amount of capital being directed towards sustainable investments.
- In Europe today, roughly 50% of all Assets Under Management (AUM) can be classified as sustainable assets.
- Hospitality is the real estate sector that is most exposed to the changing tides of sustainability demands from investors, with high exposure and sensitivity to consumer demands coupled with the strong relationship between costs, energy consumption and the efficiency of such. This situation naturally presents both risks and opportunities.

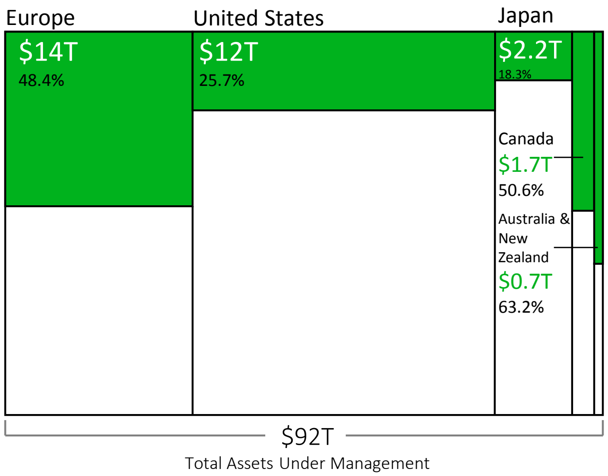
How has the situation evolved and what is the outlook?

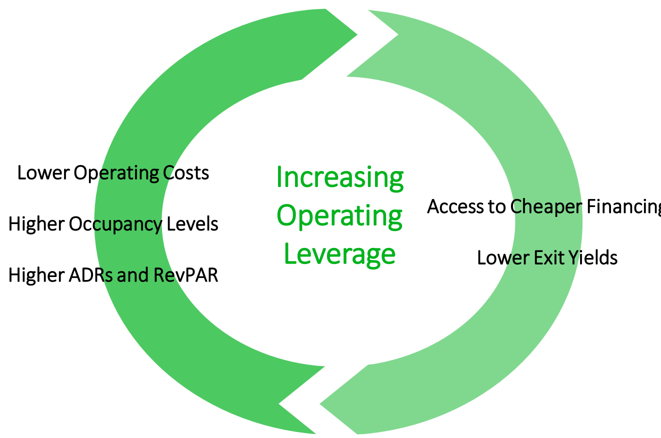
- With countries reinforcing commitments to carbon reduction with the recent COP26 conference we expect regulations and reporting standards to move forward with standardising requirements for sustainability to be built into all investments.
- We have already seen this with updates to Markets in Financial Instruments Directive (MiFID II) and the recent Introduction of the ISSB. Going forward we see such developments further pushing capital towards certifiably 'sustainable' investments.

What does this mean for hospitality?

- Increasing risk of assets becoming 'stranded' in the long-term, but also increasing opportunity, with the greatest opportunity reserved for those agile enough to move early.
- Profit maximization integrated with risk minimization.
- Opportunity for a continuing cycle of value creation coming from: enhanced consumer demand (increased demand with reduced price sensitivity), reduced operating costs and access to cheaper debt instruments.
- The key to this cycle of value creation is the access to cheaper financing which enables the transition. Generally, the consensus in the market has been that green finance instruments are priced between 15 and 25 basis points cheaper than conventional finance products.
- In hospitality we have seen this gap widen to 132.5 bps. This is because hospitality has a potentially very lucrative cycle of value creation, due to its high sensitivity to sustainability factors on both the revenue and cost lines.

Sustainable Assets as Proportion of Total AUM:





 Sources: Bloomberg, Eurasian Economic Review, Whitbread.

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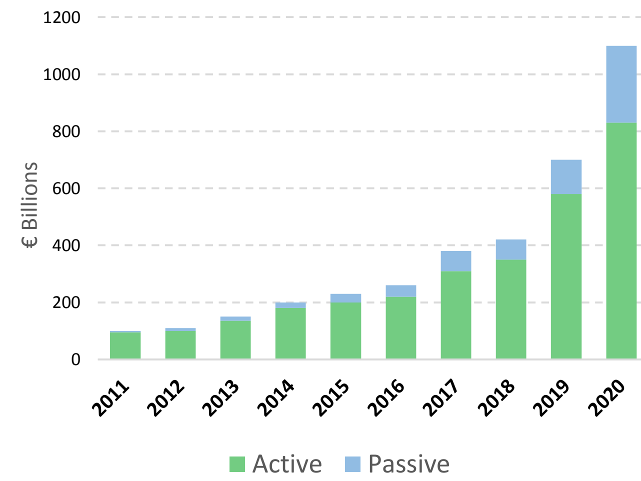
Executive Summary

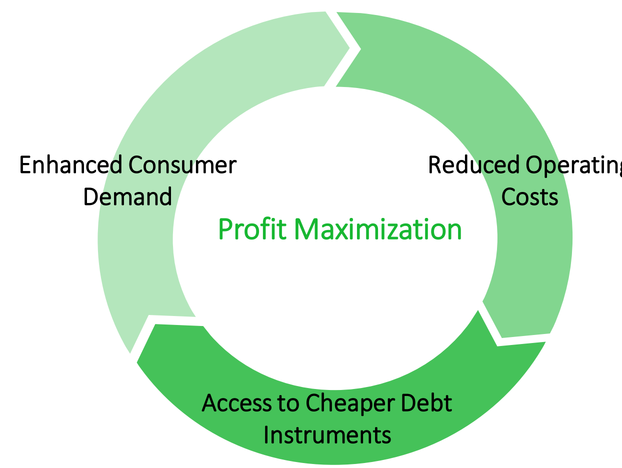
Executive Summary

Introduction to ESG and The Need For This Report:

- Today, more than ever, organisations are expected to take into account a wide range of non-financial considerations, broadly relating to Environmental, Social and Governance (ESG) factors. Ultimately, the framework seeks to promote greater responsibility and transparency, and has recently begun to gain widespread legitimacy in the financial world.
- 2020 was a bumper year for purely sustainable fund managers in Europe, with Assets Under Management (AUM) surpassing the $1 Trillion for the first time. Today, it has risen to $1.4 Trillion, with more than 50% of all money flowing into funds in Europe going to sustainable investments.
- According to Morningstar, 2021/22 has been expected to be the period over which ESG impact investing truly enters the mainstream. With sustainability updates to MiFID II coming into force in 2020, requiring investment managers to ask clients about their sustainability goals, and the very recent introduction of the ISSB by the IFRS Foundation, a significant step in brining consistency to ESG reporting standards, we expect that an ever increasing amount of capital will flow in the direction of sustainable investments.
- This rapidly evolving situation brings both grave dangers for those who fail to react, yet unbounded opportunity for those who can adapt, and particularly those brave enough to be early movers.
- Historically, the Hospitality Industry hasn't been known to be quick on its feet. However, the industry has become more agile and able to react to situations as they play out; This has been demonstrated through the increasing adoption of technology in the last few years and the industry's reaction to the pandemic. The Hospitality Industry is perhaps the most exposed real estate sector to ESG factors and, therefore, it represents a huge opportunity for those able to grasp it.
- With the evolving situation we see opportunities to not only maximize profits but also minimize exposure to risk, both from a regulatory and consumer demand perspective.
- We see profit maximization coming from a matrix of enhanced consumer demand, reduced operating costs and access to cheaper debt instruments, with an expectation of yields differentials widening over the long-term.

Annual European Sustainable Fund Assets:





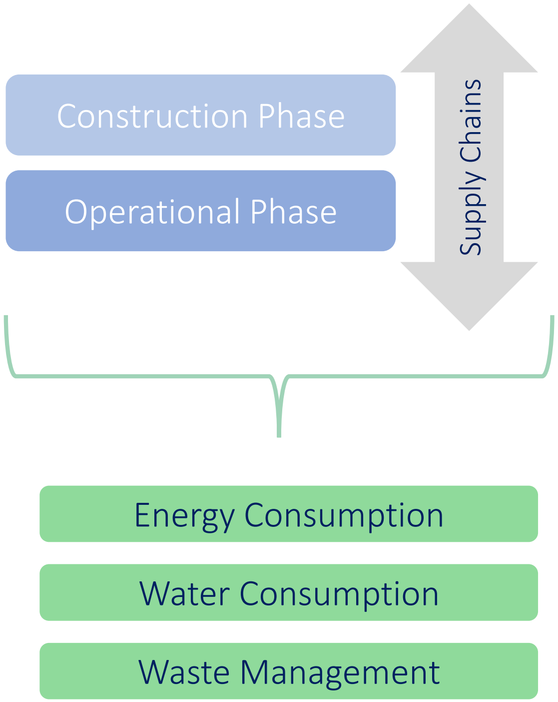
 Sources: Morningstar, Bloomberg.

The 'E' in ESG:

- As we discuss fully in "Setting Parameters" (page 9), the focus of this report is on the Environmental aspect of the ESG framework.
- More concrete than social and governance factors in terms of ease in which Key Performance Indicators (KPIs) can be measured, we have seen green finance mechanisms, and specifically debt instruments, emerge most rapidly and prominently in the evolving sustainable ESG finance sector.
- Since Green Finance debt instruments are the crux of this report and what we have labelled 'The Opportunity of the Horizon', the focus is on the reasons for the emergence of such debt instruments, the instruments themselves and what this means for the broader real estate sector and the hospitality industry specifically.

Environmental Risk - Real Estate & Hospitality:

- In both the real estate and hospitality sectors it is helpful to break down the environmental impacts into: The *Construction Phase* and the *Operational Phase*, and also *The Supply Chains* of each.
- The initial construction is obviously a much more concentrated impact over a short period of time while over operations the impact is incremental over the entire lifecycle.
- The report discusses how it is important to increase resource efficiency across three key areas: Energy and Water Consumption, and Waste Management, discussing where the options currently stand in terms of improving efficiencies in these key areas.
- We discuss the argument for retrofitting, which is a crucial piece of the puzzle with it estimated that 95% of buildings that exist today will still be around in 50 years.
- There are however, presently, significant obstacles in terms of costs, with financial incentives not fully aligned, even at the governmental level.
- We see new builds as where the most "bang for your buck" can be had. With building in sustainable elements across the lifecycle, into design, construction and operation unlocking greater value while also having a positive impact on the wider environment.

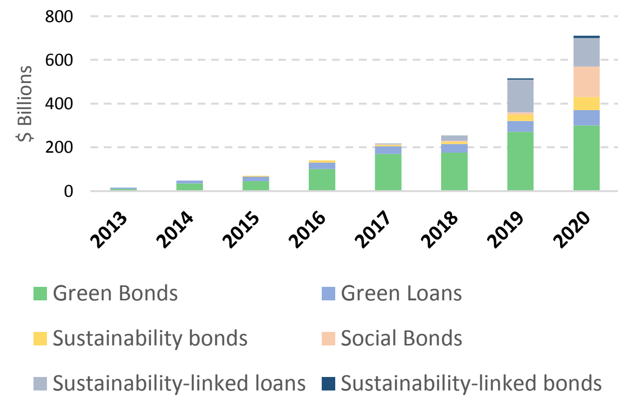


 Sources: Europa, Bank of England.

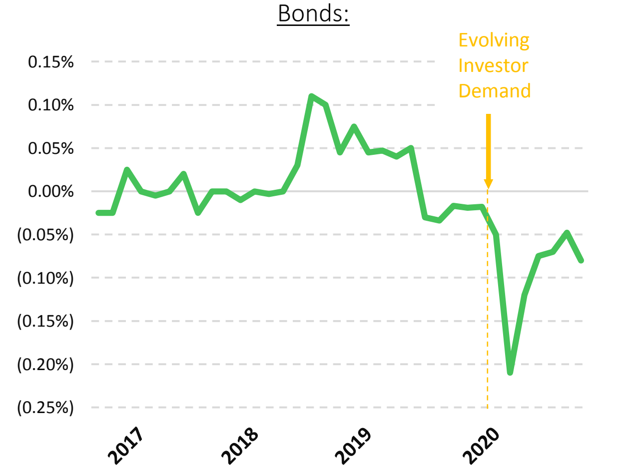
The Opportunity of the Horizon: Green Finance in Real Estate & Hospitality:

- While issuances of green bonds (the first green debt instruments) began in 2007, the sector only begun to really gain traction in 2013 with the first issuance of a corporate green bond and the first single $1 billion + bond being issued.
- Green Finance in real estate also emerged at this time, with Unibail-Rodamco-Westfield's 2014 green bond issuance of €750 million, with issuances really taking off in 2017.
- In hospitality, the new sub-sectors of debt instruments didn't arrive until 2019. Activity begun to get off the ground in 2019, with 4 notable European green bond offerings and green loan agreements, but it was brought back to earth in 2020 with the pandemic.
- 2021 has seen activity begin to pick up again, of note is Qatari Diar's £450 million syndicated loan for their conversion of the former US Embassy into a hotel, which is contingent on the construction process and final building itself meeting specific sustainability criteria.
- Given the nascent stage of development of the sector, available data is thin on the ground. Conclusions however can be drawn from the wider market and initial transactions such as the very public and transparent Whitbread bond issuance.
- Research from French asset managers Amundi suggest that the average so called "greenium" on green finance products (lower interest and coupon rate payments, for borrowers and bond issuers, respectively) is between 15 and 25 basis points.
- Whitbread's issuance of two green bonds in February 2021, the most significant green issuance in the hospitality sector, was an important step, particularly given the public nature of the issuance. The coupon rates (interest payments) for the two bonds were between 70 bps and 132.5 bps cheaper than the equivalent cost of finance for a similarly rated (BBB-) issuance, suggesting that the greenium for hospitality could be significantly higher than 15 to 25 bps.
- This makes sense as Hotels are in a unique position, with high sensitivity to consumer preferences and very high energy intensity. The Opportunity of the Horizon for hospitality is therefore, a continuing cycle of value creation through lower operating costs, higher RevPAR, cheaper cost of financing and lower exit yields.

Global Sustainable Debt Issuance:



Yield Differential - Green vs. Conventional Bonds:



Sources: Vasakronan, Climate Bonds Initiative, Unibail-Rodamco-Westfield, Bloomberg, Amundi, Eurasian Economic Review, Whitbread.

ESG Overview & Research Scope

What is ESG?

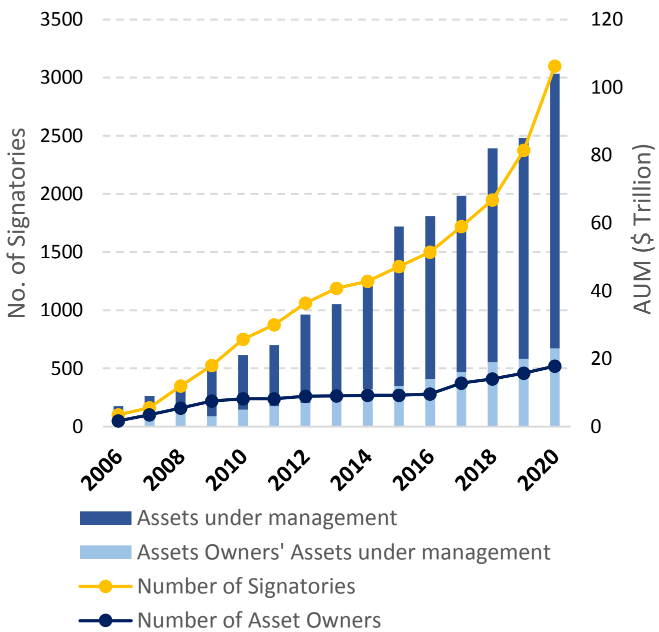
Today, more than ever, businesses are expected to take into account a wide range of non-financial considerations, broadly relating to Environmental, Social and Governance (ESG) factors:

- Environmental criteria concern the way in which organizations interact with their physical environments.
- Social criteria concern the way in which an organization interacts with society, and the relationships that it has with all stakeholders.
- Governance criteria are the most inward looking of the ESG framework, concerning the internal systems of practice, controls and procedures within organizations themselves.

A Recent but Rapidly Evolving History:

- The ESG framework emerged as part of a joint initiative between UN Secretary General Kofi Anan and the CEOs of major financial institutions as part of the UN Global Compact in January 2004, with the term 'ESG' officially coined in the UN Global Compact study and subsequent conference titled: "Who Cares Wins".
- In 2006, the release of the UN's Principles for Responsible Investment (PRI) marked the first step in actually requiring companies to incorporate ESG factors into financial evaluations.
- Initially, 63 companies signed the PRI, with an initial combined Assets Under Management (AUM) of \$6.5 trillion. As of 2020 there were a more than 3,000 signatories, with AUM having ballooned to more than \$100 trillion.

AUM of PRI Signatories and Total No. of Signatories:



 | *Sources: Greengage, Forbes, Fox Rothschild, UNPRI, CFI.*

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Setting Parameters:

- As a high-level framework, ESG factors naturally take into account a very broad range of considerations.
- This research report is focused on the area where we see the most imminent and globally prominent risks but also the greatest opportunity – Environmental Concerns.

Environmental Concerns and Debt Instruments: The Opportunity of the Horizon:

- It is in this area, where we see significant opportunity, both in accessing cheaper financing while also attracting a wider customer base that is less price sensitive.
- The report will address growing issues relating to the broader environment and the role that businesses have to play, then moving into a discussion of the risks as they relate to real estate and the opportunities presented by the emergence of Green Finance debt instruments, and finally focusing on the risks presented to the Hospitality Industry and the opportunities presented by the recent emergence of green finance in hospitality.

Social and Governance Considerations?

- While Social and Governance factors also play a significant role, they are very much 'softer' characteristics that are considerably harder to quantify.
- Given the nascent stage of development of frameworks for sustainable debt capital financing, the factors of Social and Governance are far less integrated into rating procedures and requirements for loans than Environmental factors.
- Social and Governance considerations do have an important role to play in terms of influencing consumer demand, however, for the purpose of this research we will be focusing on Environmental Concerns and the emerging opportunities in combatting the risks.

The Growing Issue of Environmental Risk

The E in ESG:

- Arguably the most prominent, and certainly the most globally significant aspect of the ESG framework is the Environmental aspect, specifically relating to the Climate Crisis and the associated risks. The issue of Climate Change, and the Climate Crisis, are very unique in their scope, affecting everyone Globally, giving the issue a unique global necessity for action.

Misalignment Between Short-term Interests and Longer-Term Goals:

- Historically the science has faced significant resistance, stemming from both issues with grasping the magnitude of the situation that we face, but also the more populist aspect of governments and corporations putting economic interests ahead of longer-term environmental concerns, that have a tendency to require disruptive, expensive and unpopular policies to be put in place.

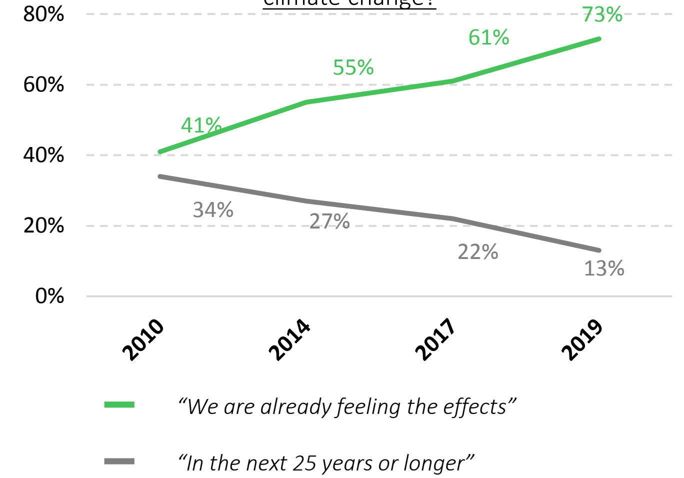
Changing Rhetoric:

- The rhetoric surrounding the Climate Crisis has grown louder and louder since the turn of the Millennium to the point where it is at today, where it has become too loud to ignore. In the UK, polls from IPSOS Mori show that at least 85% of Briton are now concerned about climate change, with the majority (52%) very concerned.
- These developments are aligned with the increasingly clear nature of the evidence. With an undeniably clear correlation between Global Population, GDP, Fossil Fuel Emissions and the levels of Atmospheric CO2 (graph 2).

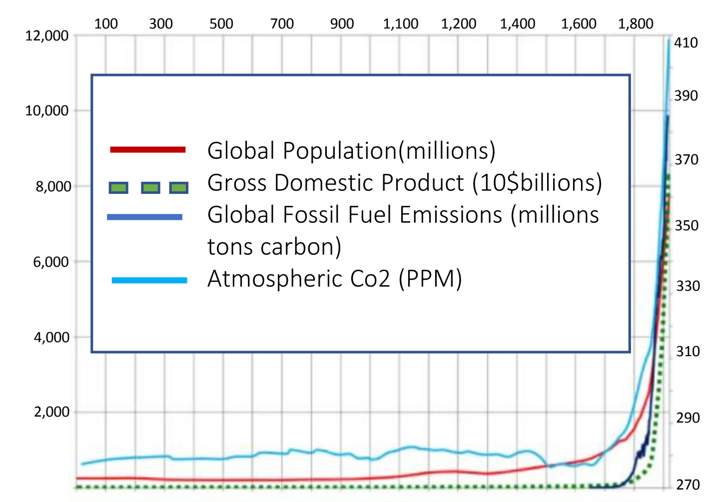
Increasing Governmental Awareness and Commitment:

- While the UN has done significant work relating to bringing business practices and ESG factors into alignment since the turn of the Millennium, the issue of Climate Change, directly, was most prominently brought to the fore with the Paris Climate Agreement (2015).

When do you think Britain will feel effects of climate change?



Global Population, GDP, Fossil Fuel Emissions and Atmospheric CO2:



Understanding Future Environmental Risk:

- With Global temperatures rising at an average of roughly 0.18°C per decade, the World is predicted to surpass a 1.5°C increase, relative to pre-industrial levels, which is considered to be the "safe limit" by 2050.
- While the numbers seem small in the grand scheme of things, such incremental differences are anticipated to have grave implications, most significantly with extreme weather events increasing in both severity and frequency.

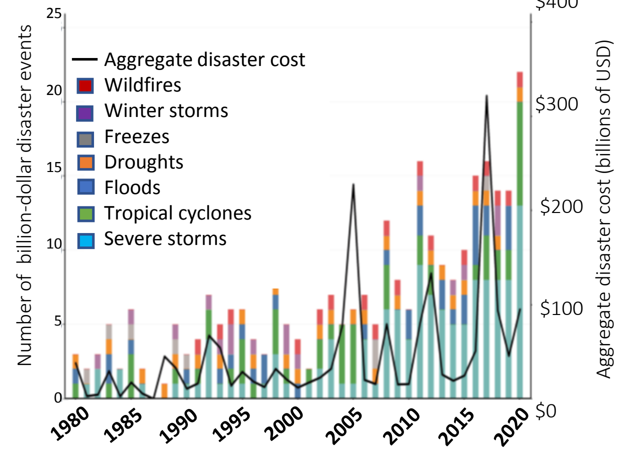
The Role of Business:

- Businesses have had a significant role in the emergence of the situation that we find ourselves in today, with the commercial sector being responsible for an estimated 18.2% of CO2 emissions in the UK in 2020. This impact obviously widens with the definition of business which can encompass all sectors.
- As a result, businesses also have a significant role to play going forward. It has become less of a question of whether businesses can afford to take into account such factors, and more of whether they can afford not to.

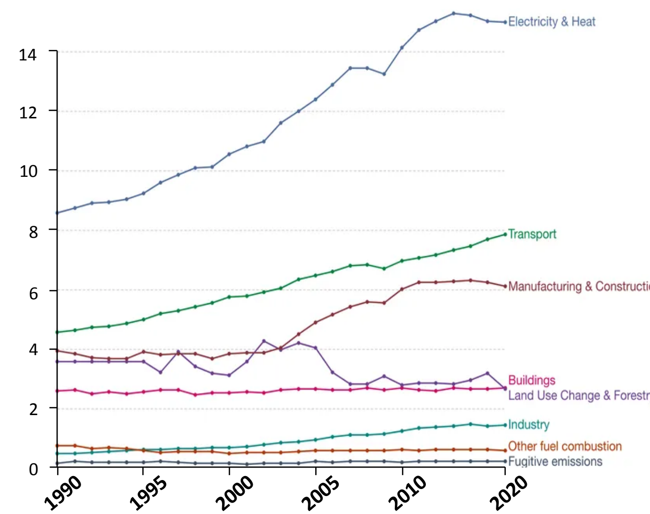
The Impact on Business:

- The Climate Crisis presents a number of different risks to businesses, both in terms of direct risks as a result of a more volatile climate (*Physical Risk*) but also risks that relate to their response to the issue and their role. These can be categorized as: *Reputational Risk*; *Regulatory Risk*; *Transitional Risk*; and ultimately, *Existential Risk*.
- Such risks are not evenly distributed and present themselves most prominently to industries that are most entrenched in their polluting ways.
- On the other side of this, there are significant opportunities on the horizon for businesses that embrace the need for this transition, both in terms of mitigation of the risks listed above but also in a more active, positive economic sense.

Weather & Climate Disasters Exceeding $1b. in Costs:



Global CO2 Emissions by Sector (in tonnes, billions):



 | *Sources: IPCC, BBC, Gov.UK, FT, Schatz Senate Gov, Vox, The Guardian.*

Lack of Clear and Consistent Sustainability Reporting Standards in Business:

- Historically there have been issues with integrating sustainability concerns into business and financial decision making.
- Such issues have stemmed from a lack of clear and consistent standards across geographies and jurisdictions, and also a lack of implications for following or not following standards.

The ISSB:

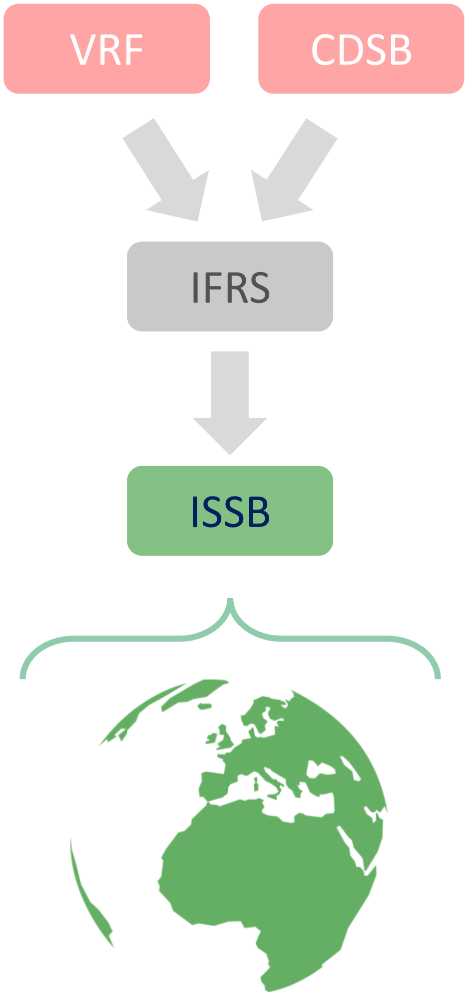
- At the beginning of November 2021, the International Financial Reporting Standards (IFRS) Foundation announced a series of significant developments including the International Sustainability Standards Board (ISSB).
- The formation of the ISSB is part of an effort to establish a global consensus for climate and sustainability disclosures more generally.

Consolidation of Fragmented Reporting Environment:

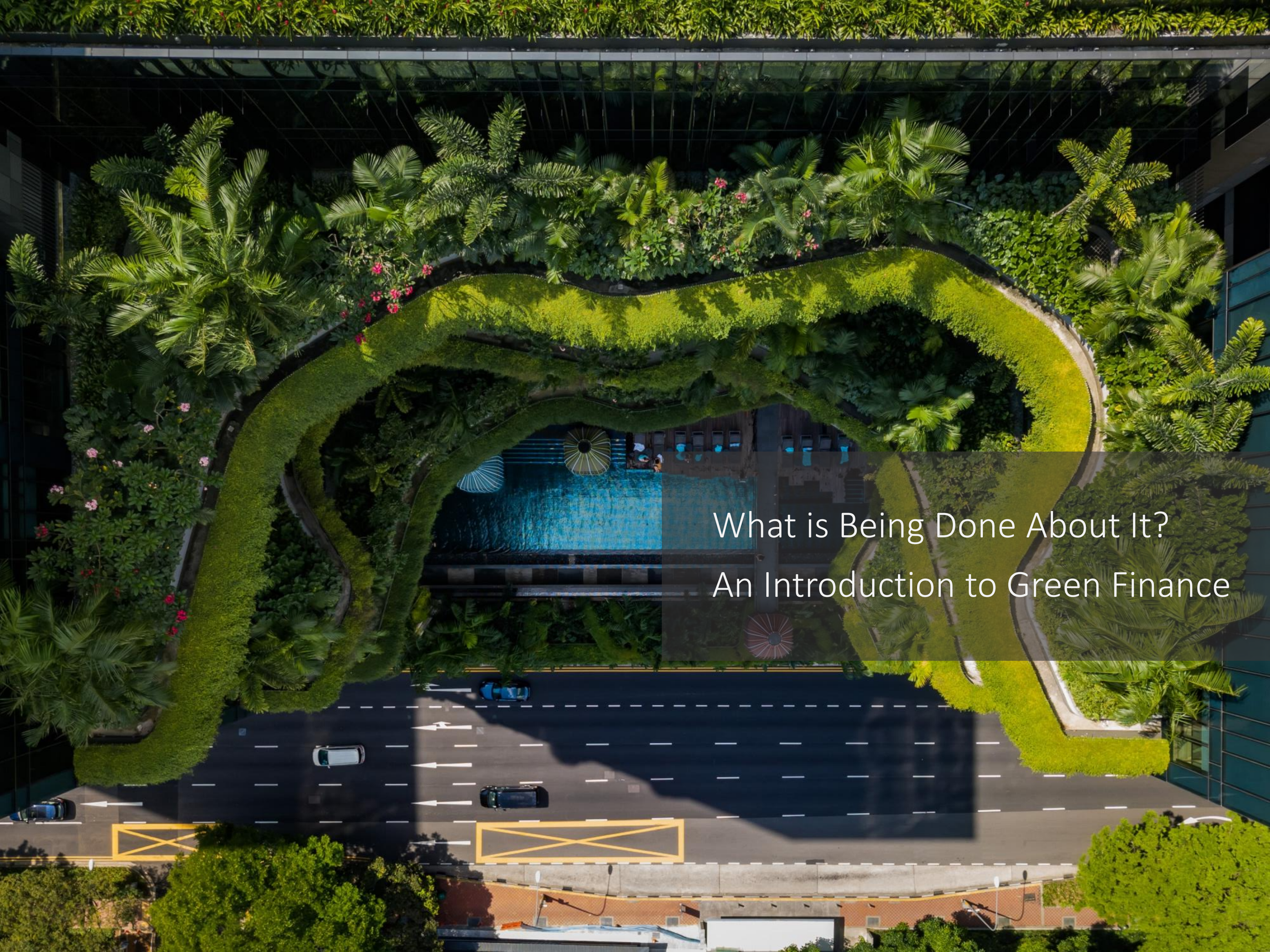
- The ISSB will consolidate the Value Reporting Foundation (VRF) and the Climate Disclosure Standards Board (CDSB) to establish a single global standards setter for sustainability.
- Consolidation of global standards through the IFRS Foundation will likely give the new standard setting board and added amount of legitimacy among businesses, following on from the Foundations work in standardizing accounting principles and disclosures.

Implications for Business:

- While currently (at the time of writing) in the very early stages, the move to establish a global standards setting body for sustainability is going to have far reaching consequences across the capital stack of businesses, investors, and lenders.
- Establishing such a wide reaching standard for reporting sustainability issues in a commonly accepted way will further increase the onus on businesses incorporating such issues.



 | *Sources: Accountancy Age, London Business School, IFRS.*



What is Being Done About It?

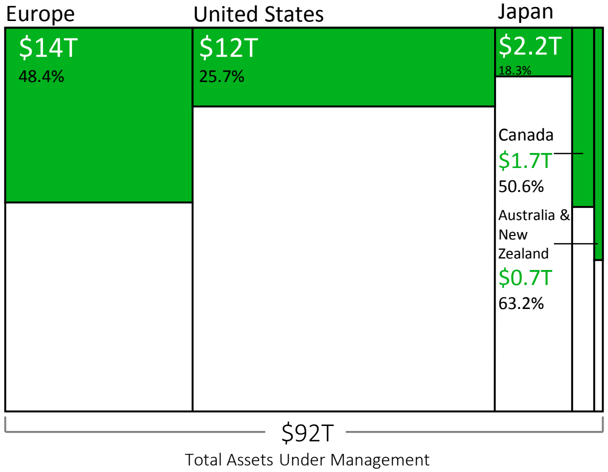
An Introduction to Green Finance

Green Finance – Aligning Economic and Environmental Interests

The Importance of the Direction of Capital Flows in Enacting Change:

- One of the most critical developments has been an increasing awareness of the importance of taking environmental risks into account among asset allocators when evaluating investments. It is now standard practice to take the wide range of ESG factors into account when considering investment opportunities.
- One way this has taken form is in large institutional investors limiting their exposure to and tapering down their positions in any investments that are considered to be environmentally unfriendly.
- For example, in June 2020, the UK's largest pension fund, the National Employment Savings Fund (NEST) announced that it would divest from any exposure to fossil fuels, looking to shift the total £5.5 billion of assets into "climate aware" investments.

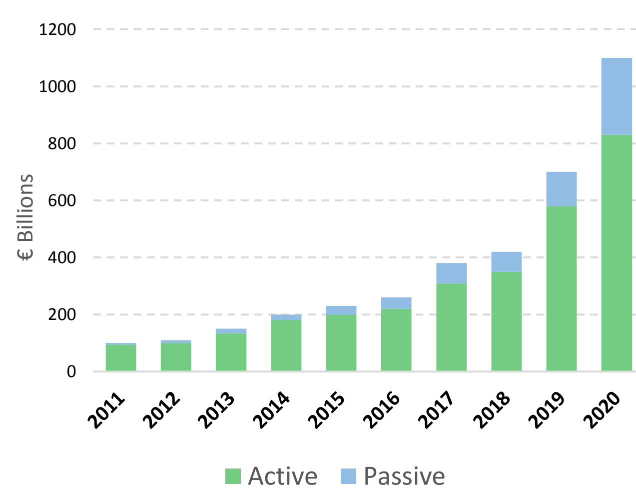
Sustainable Assets as Proportion of Total AUM:



Aligning Short and Long-term Interests:

- The emerging narrative has been that incorporating the ESG factors in capital markets makes sound business sense. It is not a zero-sum game with a winner and a loser, but instead a situation where more sustainable markets and more equitable outcomes for society are in line with business interests – in short, the proverbial pie can be made larger for all to share.
- The increasing importance of incorporating the ESG factors into investment decisions is further reflected in the growth in assets under management (AUM) in European Sustainable funds, which surpassed $1 trillion in 2020. Of note is the significant increase in sustainable assets in 'passive' funds from 2013 onwards pointing towards the wider investor demand to include sustainable assets in index funds.
- It is estimated that today, at least 98% of investors use ESG data in their investment process.
- A considerable development in this transition of interests has been the emergence and development of 'Green Finance'.

Annual European Sustainable Fund Assets:



 | *Sources: Bloomberg, Word Bank, ICMA, EIB.*

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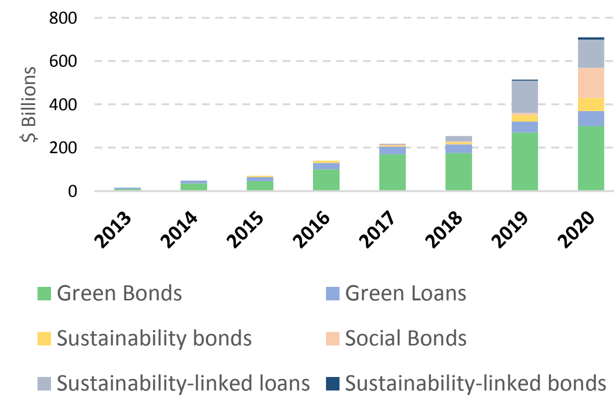
The Evolution of Green Finance:

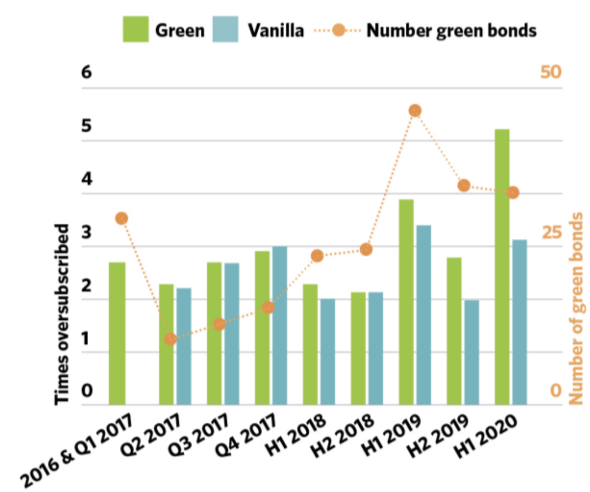
- Green Finance debt structures (Green Bonds) first appeared in 2007, with the Climate Awareness Bond, issued by the European Investment Bank. The proceeds of which being dedicated to renewable energy and energy efficient projects.
- A turning point came in 2013, when the first corporate Green Bond was issued by SEB for Vasakronan, a Swedish housing company, totalling $203 million.
- With the first ever '$1 billion Green Bond' also being issued in 2013, this year can be seen as a turning point with issuance accelerating and the product offering also widening over the following years.
- Globally, total global cumulative issuance of green bonds surpassed $1 trillion by December of 2020. While significant, the total pales in comparison with the overall bond market with over $128 trillion outstanding.
- Annual issuance is on track to surpass $500 billion in 2021, with issuance expected to reach $1 trillion in 2023.
- Green bonds currently dominate the green finance market, however in recent years we have seen a growing popularity surrounding green loans, sustainability linked loans, social bonds and sustainability bonds, which only really significantly came emerged in 2017.

- Most broadly, Green Finance debt structures can generally be divided into:
  - *Activity-Based Debt*: Used to raise money to finance green projects/ activities. Includes green bonds, social bonds, green loans, etc.
  - *Behaviour-Based Debt:* Sustainability linked bonds and loans, that don't have a specific use of proceeds and instead have interest rates linked to sustainability goals.
  - *Transition Debt:* The most recent structure to be developed. Focuses on brining financial resources to activities that are hard to categorize as green (e.g. Fossil fuel companies) to enable them to transition to more sustainable practices.

Global Sustainable Debt Issuance:



Average Oversubscription of Sampled EUR Bonds:



 | *Sources: World Bank, Climate Bonds Initiative, Vasakronan.*

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Green Finance Mechanisms – Key Definitions and Distinctions

Green Bonds:

- Proceeds of green bond issuances are used to finance specific green (sustainable) projects.
- Eligibility is usually based on a clear demonstration of the environmental benefits of the project and an audit mechanism to ensure compliance.
- Historically green bonds have most prominently been issued by governments, banks and energy companies.

Green Loans:

- Similar to green bonds, a green loan is made by a commercial lender to a borrower, whereby the borrower must use the proceeds of the loan exclusively on projects that make a contribution to a pre-determined environmental objective.
- Green loans (and loans in general) are typically smaller and more private than green bond issuances.

Sustainability-linked Bonds and Loans:

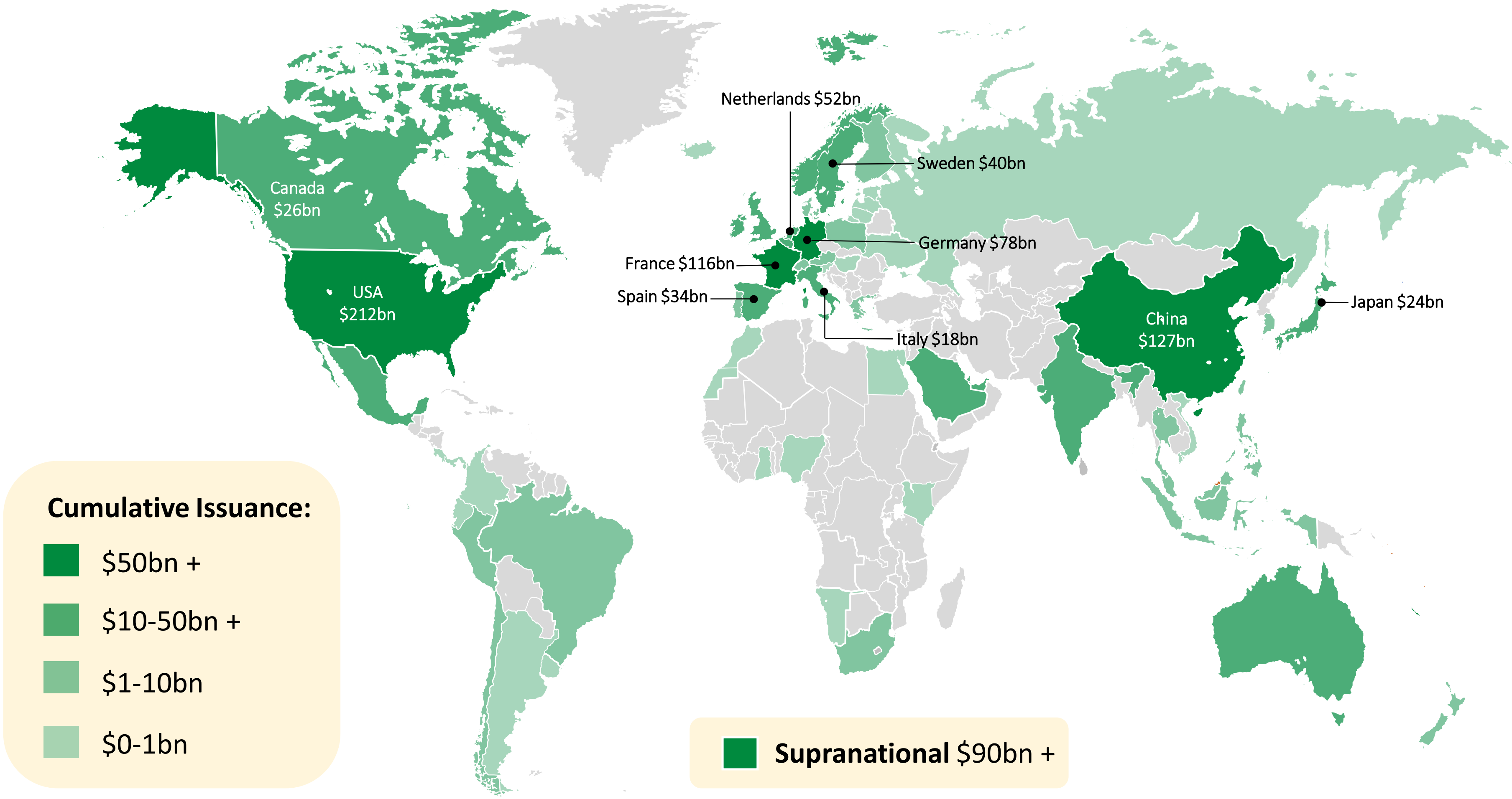
- Sustainability-linked financing mechanisms require the issuer of the bond / receiver of the loan to pledge to meet pre-specified and tailor made sustainability targets, with these targets directly linked to the coupon or interest paid.
- The difference between sustainability-linked Bonds and Loans is the same distinction as outlined above.

Social Bonds and Loans:

- Moving away from an environmentally sustainable focus, the remit of social bonds and loans is wider, taking into account factors from the wider spectrum of ESG.
- Social bonds and loans have seen increasing popularity in recent years with increasing focus on incorporating social considerations into financial decision making.
- The social finance sector is significantly less developed than green finance, particularly as related to real estate and hospitality.

 Sources: KPMG, World Bank, S&P Global.

The $1 Trillion Green Bond World



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Frameworks and Principles:

- Each bank (with lending) and each corporation (issuing bonds) have outlined their own Green Frameworks to outline how the proceeds can and will be used. These frameworks are frequently based on the Green Bond Principles and the Green Loan Principles:

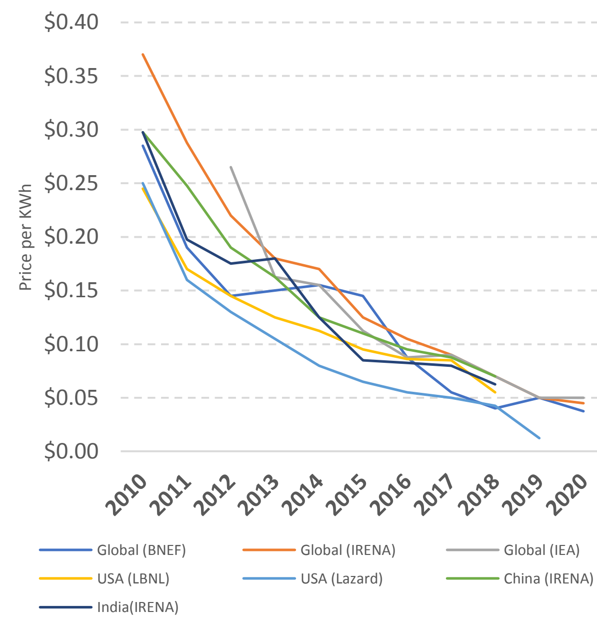
    - *Green Bond Principles (GBP):* Established by the International Capital Markets Association (ICMA) in 2018, the principles are voluntary issuance guidelines for promoting transparency and consistency in definitions and reporting for the financing of green projects.
    - *Green Loan Principles (GLP):* Established by the Loan Markets Authority (LMA), also in 2018, the GLPs build upon and refer significantly to the GBPs.

- Each of which revolve around four core tenants of: the *Use of Proceeds*; *Processes for Project Evaluation and Selection*; the *Management of Proceeds*; and *Reporting*.
- The Principles for green bonds and loans were a significant step in solving the historical issue of a lack of clarity and consistency in terms of what is required to access green financing.

Increased Attractiveness – Increased Competition – Increased Innovation – Falling Prices:

- The concept of Green Finance is based on the 'Principles of Stimulating Innovation'. By subsidizing an industry to make it more attractive in an economic sense, there will be increased competition in the industry, ultimately leading to increased innovation and reduced prices.
- The impact of such is demonstrated by the efficiency gains and cost savings that have been made in the renewable energy sector – one of the greatest beneficiaries of the development of Green Finance, with the cost of solar energy dropping by a factor of five since 2010 to the point where it can now compete, on a cost basis, with traditional fossil fuels.

Solar Costs Globally:



 | *Sources: International Capital Markets Association, Loan Markets Authority, Rameez Naam.*

Notable Historic Green Finance Transactions

First Green Bond: European Investment Bank (EIB)

- **Date:** March 2007
- **Deal Size:** €600 million
- **Comments:** The equity index-linked "Climate Awareness Bond" was used to fund renewable energy and energy efficiency projects across Europe.

First Green Bond Fund: The World Bank

- **Date:** November 2008
- **Deal Size:** 150 green bonds totalling $13 billion
- **Comments:** The 150 bonds in 20 currencies attracted global interest from both institutional and retail investors. The issuance was the first to define criteria for eligible projects.

First Corporate Green Bond:

- **Date:** November 2013
- **Deal Size:** SEK 1.3 billion
- **Comments:** Issued through the Swedish SEB, Vasakronan paved the way with corporate green debt issuance. Today, the Swedish property company has issued more than SEK 4.8 billion in green bonds.

The UK Government's First Green Bond (Green Gilt)

- **Date:** September 2021
- **Deal Size:** £10 billion
- **Comments:** Issued on the London Stock Exchange, the largest sovereign green gilt on the exchange, the government's inaugural green gilt is also the largest inaugural sovereign green bond issuance globally to date.

EU Issues First Green Bond to Record Demand

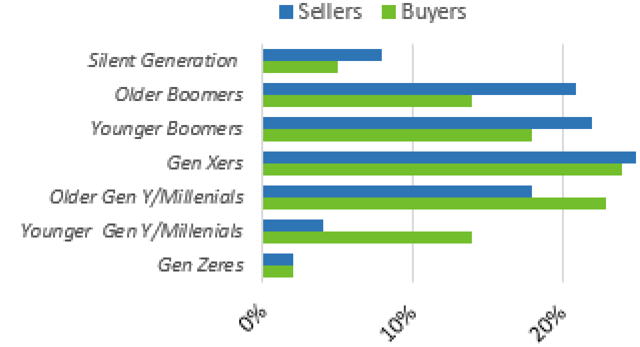
- **Date:** October 2021
- **Deal Size:** €12 billion
- **Comments:** Priced with a yield of 0.453%, a lower new issue premium than is typical for the EU, the bond was more than 10x oversubscribed, attracting €135 billion in demand.

Environmental Risk & Real Estate

A Developing History of Environmentalism in Real Estate:

- Constructing buildings to environmental standards is by no means a new concept and has been around, in one form or another for centuries. The current trend however, can be seen to have started in the 1990s, developing closer to the form that we recognise today with the turn of the new Millennium.
- For the majority of this brief history, environmentally sustainable buildings have been considered a niche product, one in which developers go above what is normally expected to create a product that only a small section of the population would be willing to pay a premium for.
- Today, as a result of the evolving rhetoric, but also the more direct expansion of regulations relating to Climate Change broadly and the construction industry directly, buildings designed with the integration of sustainable principles have become the norm, with a growing group of consumers that are willing to pay more for projects that go beyond minimum requirements.

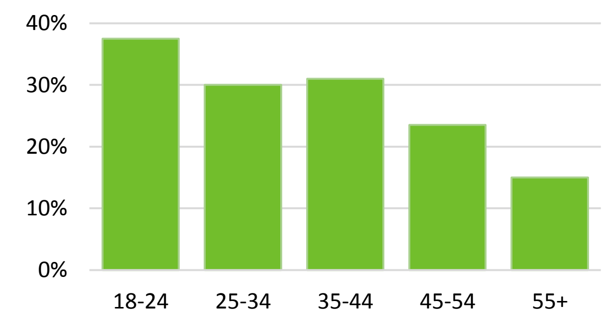
Share of Buyers and Sellers by Generation:



Changing Demand:

- The expectation of the integration of such principles is only expected to accelerate as younger and more socially conscious consumers enter the market. While a slowly evolving trend in terms of the pace in which they enter the market, it is a crucial evolution for developers in particular to be aware of with these generations being their future customers. If the RE sector wants to replicate the growth of the past decade, then it needs to evolve.
- Looking towards graph 1, it is clearly illustrated that the millennial generation and below are two groups with room to grow in terms of entering the housing market, with home purchases outpacing sales. Unsurprisingly, Generation Z (1992-2012) have the most room to grow.
- Research by Deloitte says that Gen Z are adopting more sustainable behaviours than any other group, with 50% reducing how much they buy and 45% having completely stopped buying certain products as a result of their concerns.

Percentage of Respondents Actively Becoming Environmentally Conscious in 2020 By Age Group:

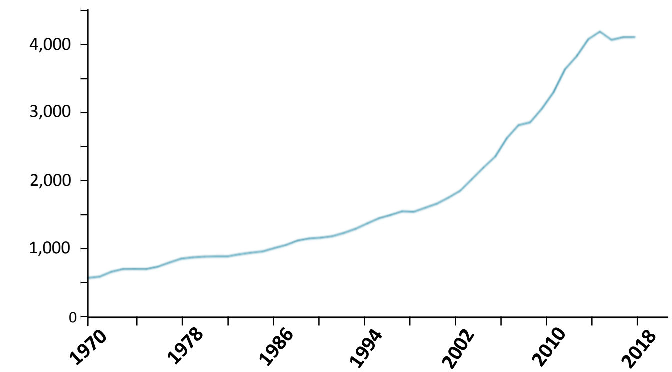


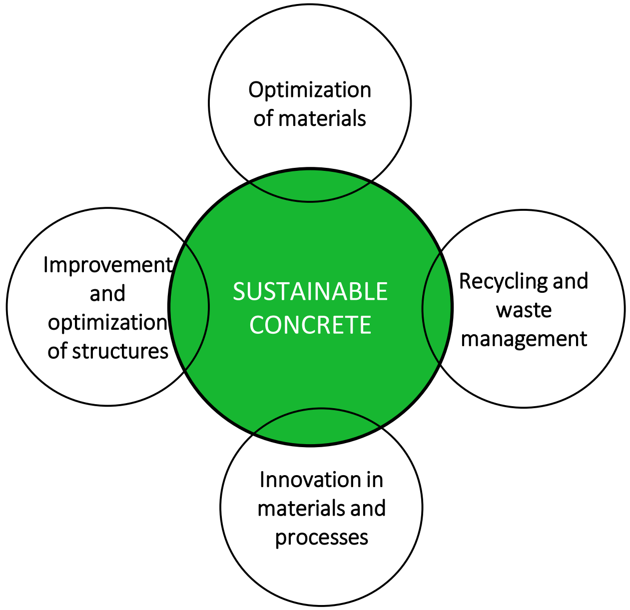
 | *Sources: Forbes, NAR, Deloitte.*

The Role of Real Estate in the Greater Environment:

- Given the nature of the sector, the number of inputs and outputs along with the incredibly long lifecycle of the products, that are pervasive throughout all societies, the sector plays a pivotal role in the wider global environment.
- The environmental impact of the industry as a whole is substantial, consuming 35% of global energy and contributing 38% of the total carbon emissions. The gravity of these figures is further reinforced by the fact that the world's housing stock is expected to double by 2050, with 85-95% of the buildings here today expected to still be here in 2050 (i.e. not demolished).
- With the construction of buildings, the key environmental concerns revolve around the materials use, and the carbon footprints of key materials such as concrete and steel. Concrete, the most widely used man-made material in existence is the source of roughly 8% of global CO2 emissions.
- Significant innovation is required in the long-term to wean constructors off of this cement addiction, while in the shorter-term constructors need to reduce emissions in existing procedures (see right for example framework).

Global Cement Production (metric tonnes, millions):





Threats to the Real Estate Industry:

- Given its prevalence globally, the real estate industry is more exposed than most to the effects of climate change. The threats can be divided into Physical and Economic threats (with the two being inextricably linked).
  - *Physical threats:* Heavily dependent on geographic location, and relate to the direct impacts of climate change: Rising Sea Levels and Flooding; Increased Frequency and Severity of Wildfires; and Increased Frequency and Severity of Storms.
  - *Economic threats:* Based on the degree of physical threat. With increasing physical risk we have seen significant increases in the economic impact of climate change in the RE industry. The Journal of Financial Economics estimates that home exposed to rising sea levels in the long-term, sell for an average of 7% less, with another report estimating that at least 35% of REITs are exposed to climate hazards.

 | *Sources: World Green Building Council, EU, FT, CRE, Forbes, Deloitte, World Economic Forum, JFE.*

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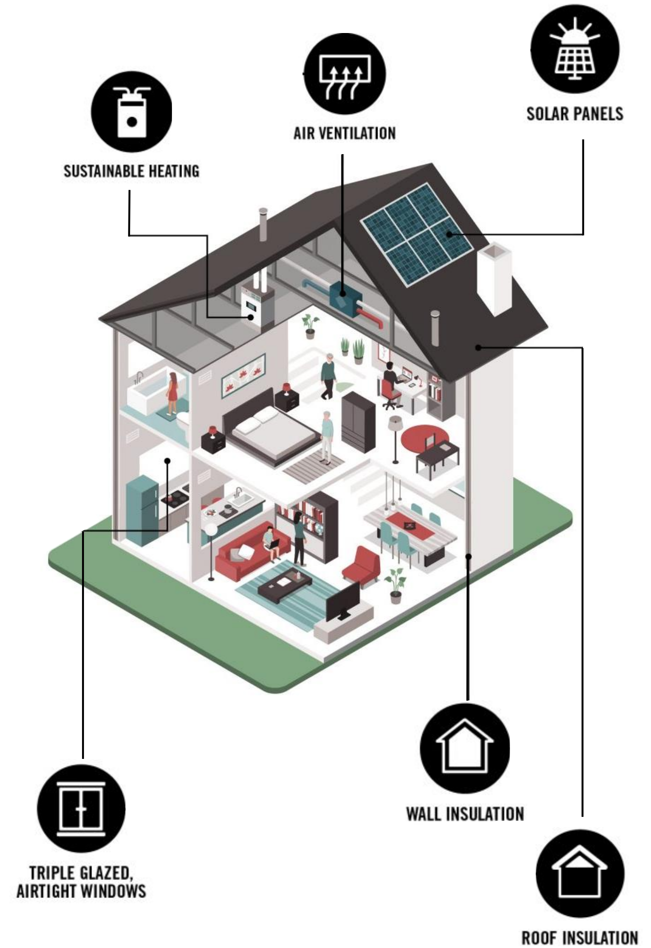
The Role of Real Estate in Mitigating the Effects of the Climate Crisis:

- As part of global climate ambitions, it is crucial that the real estate industry becomes sustainable. Being one of the largest polluters means that this goal is both grand in scale but also in the impact that it can have globally.
- *"Getting construction right isn't sexy, but when it comes to climate issues, it is the elephant in the room."* (Stephen Good, Construction Scotland Innovation Centre).
- The ambitious goal for RE to be sustainable is to reach net zero throughout the entire lifecycle of the product.
- In line with any momentous task, repositioning the RE sector to a more sustainable future is going to require a wide mix of innovations across the supply chain and the spectrum of incremental and more drastic forms of innovation.
- While the more extreme forms of innovation hold an undeniable appeal, in many cases it is the little things that can be done that can make the most significant difference over time. One example of this is 'retrofitting' buildings.

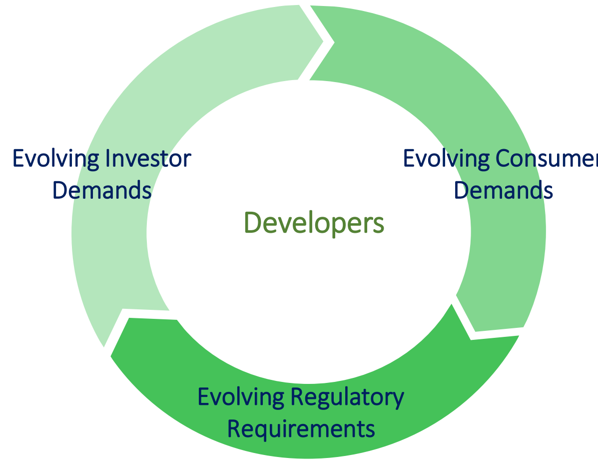


Retrofitting – Recycling for Buildings:

- While retrofitting generally can take many forms, through the lens of mitigating climate risks it is making renovations to homes and offices to make them more energy efficient. For example, through better insulation (see diagram, right, for example techniques).
- On top of increasing the energy efficiency of buildings, retrofitting has the added advantage of moving the construction industry away from its affinity towards demolishing buildings and also its addiction to such energy intensive materials such as concrete and steel.
- So far however, retrofitting hasn't proven to be overly appealing to governments and companies in tackling the climate crisis. One reason for this is the fact that retrofitting is a costly and particularly disruptive process, with governments incentives currently favouring demolition and reconstruction.

Consumers, Investors and Regulators:

- New projects and the developers behind them, today face a rapidly evolving environment of demands, coming from three major stakeholders:
- *Evolving Investor Demands:* Increasing investor awareness of the importance of taking wide range of sustainability factors into account. The Global Real Estate Sustainability Benchmark (GRESB) estimates that 95% of RE investors today use ESG data in their decision making.
- *Evolving Consumer Demands:* Consumer demands have changed considerably since the turn of the millennium and most significantly over the past decade, we expect this trend to only accelerate further with younger millennials and gen Z entering the market and increasing their buying power.
- *Evolving Regulatory Environment:* Constantly evolving, with the number expected to only accelerate, with increasing governmental focus on climate commitments, it is critical that those in the industry position themselves towards a more sustainable future now more than ever, or risk their assets becoming stranded.



Environmentally Conscious Certifications in Real Estate:

- Away from regulations, certifications are voluntary programmes that developers can subscribe to in order to quantifiably distinguish themselves from the rest of the market in terms of integrating sustainability factors. The most common and well respected include:
  - *BREEAM (*Building Research Establishment's Assessment Method): The most globally prominent environmentally conscious certification, with over 550,000 BREEAM certified building globally across more than 70 countries.
  - *LEED (*Leadership in Energy and Environmental Design): The LEED certification is targeted towards more innovative and cutting edge designs that very much lead the way in energy efficient and environmentally conscious design. This is reflected in the 96,000 buildings that are LEED certified. While far fewer than their BREEAM certified counterparts, they represented in almost every country globally.
- While the are significant costs and considerations involved with certifying a project, such certifications have become proxies for standard requirements for obtaining green financing.
- Specific details of obtaining the BREEAM certification is outlined on page 31.

 | *Sources: UN PRI, BREEAM, Wikipedia, Statista, USGBC.*

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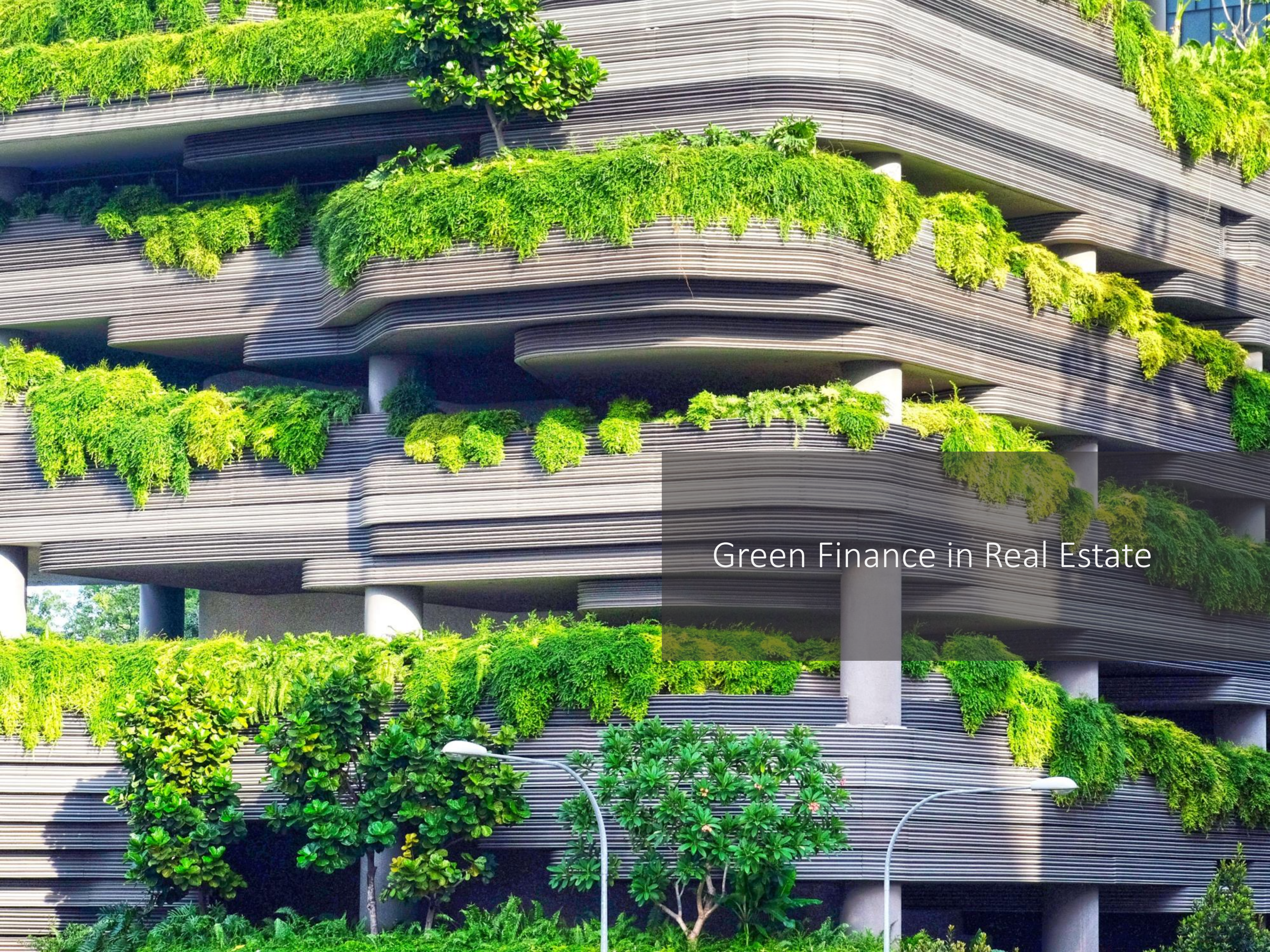


Green Finance in Real Estate

Green Finance in Real Estate

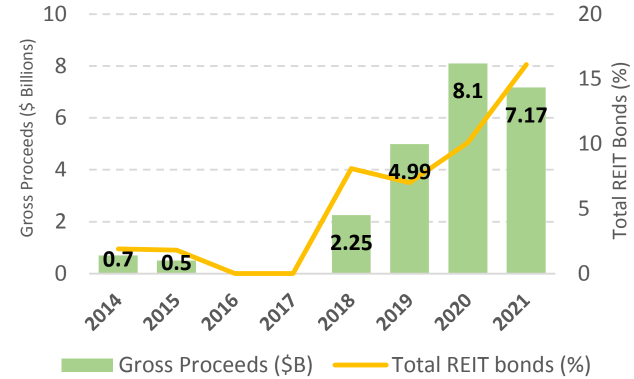
The Evolution of Green Finance in Real Estate:

- Green Finance products have seen a surge in popularity in the RE sector, demonstrated by issuance to US Real Estate Investment Trusts (REITs), the newly developing financial products were dormant as recently as 2017, with the sector initially emerging in line with more general corporate bonds in 2013.
- Over the past three years, issuance has exploded, with the total number of bonds issued so far this year (as of September) surpassing all previous years with gross proceeds also on track to surpass previous totals.
- There is significant room for growth. As with any innovative product, green bonds have been predominantly accessed by the largest players in the market, where market participants are big enough to have greater control over dictating the terms under which the products are issued – setting precedents for the market as a whole.
- Europe has played a central role in the development of green finance mechanisms, particularly driving their popularity on the global stage accounting for almost 50% of total issuance in 2020.
- The UK market specifically has begun to attract significant institutional investments, most notably with Aviva Investors committing to the allocation of £1 billion over four years to sustainable real estate and HSBC UK earmarking $100 billion for sustainable projects.

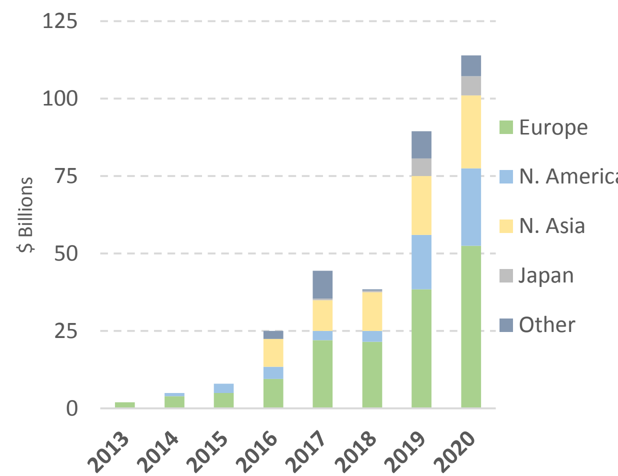
Challenges to Adoption:

- The nascent stage that the green finance and sustainable lending markets are currently in has translated into a lack of consistency and clarity across frameworks.
- Ranging from the language used to describe financing products to the criteria used for measuring eligibility for accessing products and criteria used for targets to measure ongoing performance.
- This relates to the diversity of financing mechanisms available, both across the whole industry and between different providers.

US REIT Green Bond Issuance:



International Issuance of Green Bonds:



 | *Sources: S&P Global, JLL, Property Week, Pinsent Masons, Herbert Smith Freehills, Macfarlanes.*

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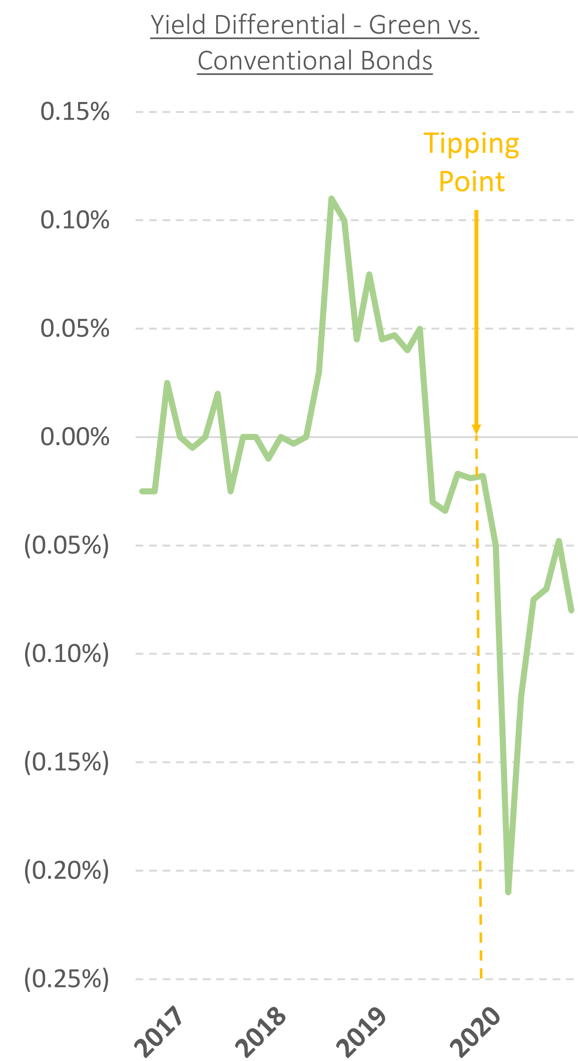
Advantages in comparison with traditional funding:

- Research from Amundi suggests that companies raising finance through the use of green bonds currently save 0.022 to 0.25 percentage points in yield in comparison with conventional bonds.
- The average yield saving today sits at around 0.15 percentage points cheaper.
- Average differences in yields can be seen to have expanded most dramatically coming into 2020. We attribute this to changing investor demands, with increasing requirements to invest in sustainable products, for example with updates to MiFID II coming into force, requiring asset managers to ask clients about their sustainability preferences.
- While they are already cheaper than conventional debt instruments, with increasing demand, it is expected that the yield differences will expand further.
- The establishment of clear and consistent disclosure requirements through the ISSB is only going to facilitate an increasing torrent of investor demand for sustainable investments.
- A further widening of the yield differential is likely to come from higher returns being required from debt instruments that don't take sustainability factors into account.
- Away from financial advantages, green bonds also offer the added benefit of lifting the profile of a company/development, particularly in the eyes of environmentally conscious investors.

Requirements and how to get access to green finance in Real Estate:

- The GBPs and the GLPs are the most overarching frameworks when defining criteria for access to green finance, providing frameworks of market standards and guidelines to achieve a consistent methodology for use across the green finance market.
- The most universally accepted green building rating systems (such as BREEAM and LEED) have come to form the basis of assessing the eligibility of real estate projects for green finance.
- Each of these rating systems require performance based measurements across the key 'impact categories', which can be defined as: *Energy efficiency*; *Waste management*; *Water management*; and *Land use*.



 | *Sources: Amundi, WSJ, GRESB, Allen & Overy, JLL, EGI, Loan Market Authority, Globe ST, RE Capital EU News.*

Key Certification Process – BREEAM Case Study

- BREEAM has emerged internationally as the leading sustainability assessment method for master planning projects, infrastructure and buildings.

The BREEAM Certification Process:

- Achieving a BREEAM certification can have numerous positive consequences for a project but what is the process of achieving the certification? Every project is unique in their own ways and so the key to the process is appointing a certified assessor, who is then involved from the planning stages through to completion and beyond. The cost of the process is anywhere between £3,000 and £34,000 plus the ongoing yearly assessment fees:

1. Decide which BREEAM standard applies to your development
2. Appoint a licensed BREEAM assessor
3. Register your project through your BREAAM assessor
4. Carry out pre-assessment with the assistance of the assessor
5. As project progresses, collect relevant info and pass it onto the assessor
6. Assessor will review info provided and determine compliance with the standard
7. Assessor submits their assessment to the central BREEAM body for certification decision
8. Receive listed BREEAM certificate.

Choosing the right BREEAM certification for your project:

- BREEAM assessments are based on specific requirements and standards, and achieving certain standards in each. The requirements for a project depending initially on the type of project being considered, with certifications divided across five project types. Deciding on which standard is the first step in achieving BREEAM certification. The most relevant to our discussion are highlighted:

- Communities *Master planning*
- Infrastructure *Civil engineering & public realm*
- New Construction *Homes & Commercial Buildings*
- In-Use *Commercial Buildings*
- Refurbishment & Fit-Out *Homes & Commercial buildings*

Key Certification Process – BREEAM Case Study

BREEAM Key Impact Categories:

- The certification measures sustainable value across 10 categories. Each category is sub-divided into a range of assessment issues with set targets and benchmarks. Points (or "credits") are awarded when a benchmark is reach, as determined by a BREEAM assessor (independent third party).

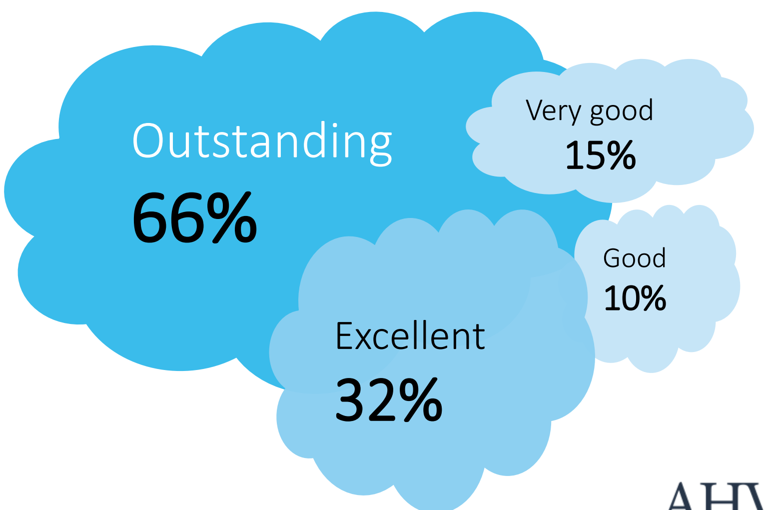
Energy	Health & Wellbeing	Innovation	Land Use	Materials
Management	Pollution	Transport	Waste	Water

Scoring and Ratings:

- BREEAM ratings are based on the number of credits a project collects across the key impact categories, with a total of 112 credits available, with scores based on a percentage and ranked from 'Unclassified' to 'Outstanding':

BREEAM Rating	Score (%)
Unclassified	<30
Pass	≥30
Good	≥45
Very Good	≥55
Excellent	≥70
Outstanding	≥85

Average CO2 emissions reductions by rating:



Key Certification Process – BREEAM Case Study

What does this mean?

- The BREEAM rating is separated in six benchmark levels which enable the comparison of the BREEAM rated buildings and the typical sustainability performance of new non-domestic buildings in the UK.

  I. *Unclassified* BREEAM rating is the performance of building which fails to meet the minimum BREEAM standards and requirements

  II. *Pass* rating level represents the top 75% of UK new non-domestic buildings with standard good practice

  III. *Good* rating shows the buildings which belong in the top 50% of UK new non-domestic buildings with intermediate good practice

  IV. *Very Good* rating is demonstrated the top 25% of UK new non-domestic buildings with advanced good practice

  V. *Excellent* rating represents top 10% of UK new non-domestic buildings with the best practice

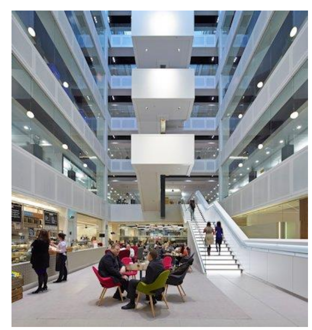
  VI. *Outstanding* rating level includes the top 1% of UK new non-domestic buildings, the most innovative buildings

- Based on previous transactions, a BREEAM rating of Very Good or above (>55%) is what is required to be considered for green finance. It is implied that the more unique a project, and the further it goes to implement best practices, the more favourable the benefits afforded are likely to be.

BREEAM Example (1): Bloomberg's London HQ:

- BREEAM UK New Construction 2014
- 2019 BREEAM Awards Winner
- Rating: Outstanding

BREEAM Example (2): PWC, One Embankment Place:



The BREEAM Assessment Scores:

- Management: 100.00%
- Transport: 100.00%
- Materials: 100.00%
- Energy: 95.65%
- Waste: 85.71%
- Water: 83.33%
- Land Use: 80.00%
- Innovation: 80.00%

 | *Sources: BREEAM.*

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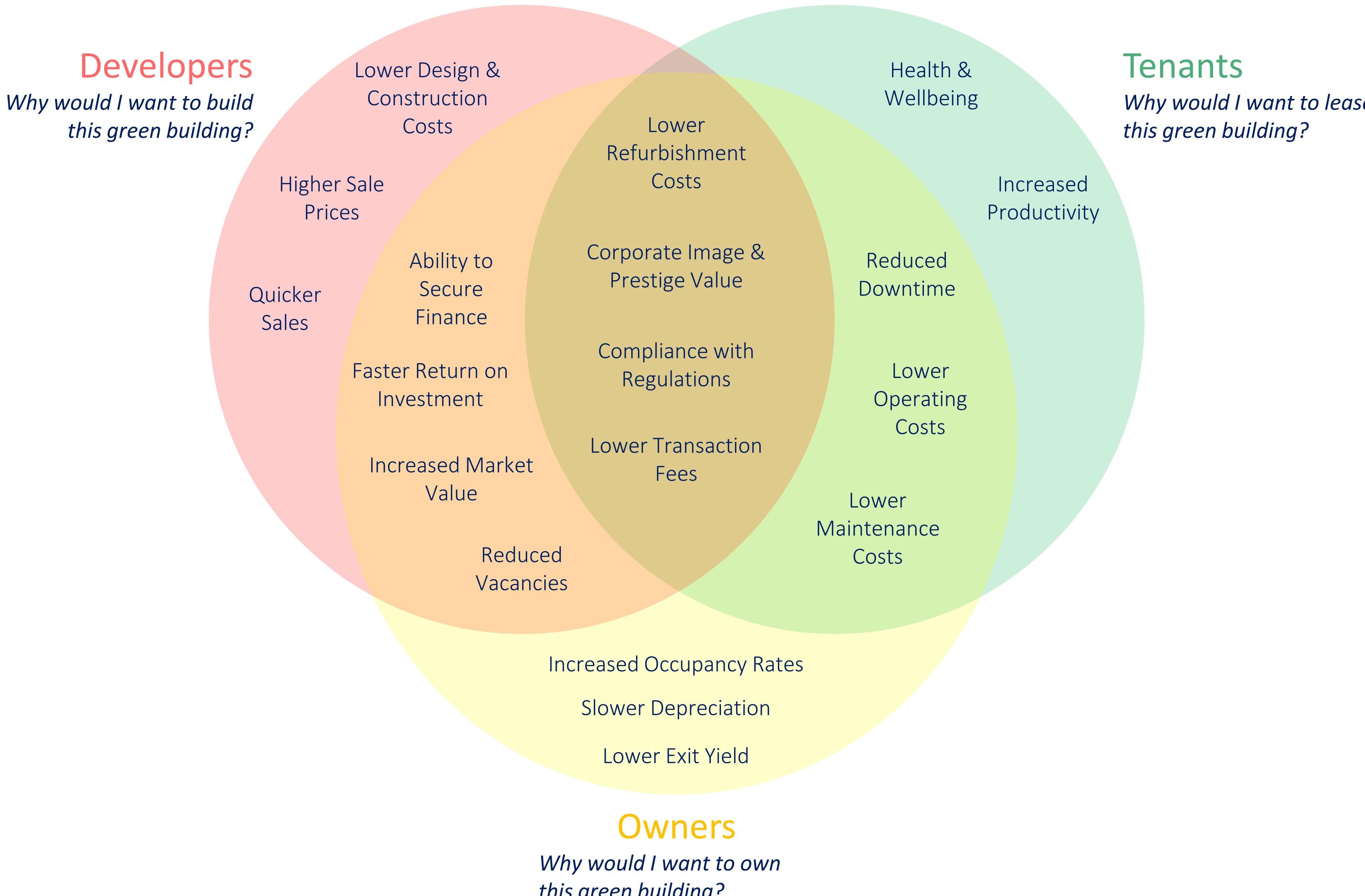
Advantages of Certification & Building Green



 | *Sources: BREEAM.*

Historic European Real Estate Green Finance Transactions

Unibail-Rodamco-Westflied Issued Industry's First Green Bond on the Euro Market

- **Date:** February 2014
- **Deal Size:** €750 million
- **Comments:** The landmark green bond issuance attracted considerable interest and was reportedly 3.4x oversubscribed within 2 hours, with the order book surpassing €2.5 billion.

Barclays Issued UK's First Green Bond for Mortgage Financing

- **Date:** November 2017
- **Deal Size:** €500 million
- **Comments:** Issued to provide mortgage financing/refinancing for the most carbon efficient homes, the €500 million bond has a coupon rate 0.625% and was oversubscribed 3.7x.

Thames Water Issued Inaugural Green Bond Incorporating GRESB Infrastructure Score

- **Date:** March 2018
- **Deal Size:** £705 million
- **Comments:** Interest payments on the US Private Placement were structured so that outperformance against the Global Real Estate Sustainability Benchmark (GRESB) mean a lower margin, and vice versa.

Derwent Became the First UK REIT to sign a Green Revolving Credit Facility

- **Date:** October 2019
- **Deal Size:** £450 million
- **Comments:** The financing includes a green tranche of £300 million, making it the first revolving credit facility provided to a UIK REIT that meets the GLPs.

CTP (Logistics Properties) Issued Green Bond to High Demand

- **Date:** October 2020
- **Deal Size:** €650 million
- **Comments:** The Green Bond, Baa3 Rated by Moody's, attracted an order book over more than €2 billion.

 | *Sources: BNP Paribas, FT, Climate Bonds Initiative, Derwent London, CTP EU.*

Historic European Real Estate Green Finance Transactions

Atrium Issued Hybrid Green Bond to fund move into Residential Assets

- **Date:** April 2021
- **Deal Size:** €350 million
- **Comments:** The first green bond issuance for the shopping centre owner, the bond was issued in accordance with Atrium's own green finance framework, and attracted an order book of €1.2 billion.

SEGRO Issued Inaugural Green Euro Bond

- **Date:** June 2021
- **Deal Size:** $500 million
- **Comments:** 8x oversubscribed, funding from the issue is to be used for the financing and/or refinancing of eligible green projects as outlined by SEGRO's green finance framework

The Berkeley Group Issue Green Bonds to Develop Energy Efficient Homes

- **Date:** August 2021
- **Deal Size:** £400 million
- **Comments:** With a 10-year maturity and 2.5% annual coupon rate, the proceeds of the unsecured green bonds will go towards the development of the groups energy efficient homes.

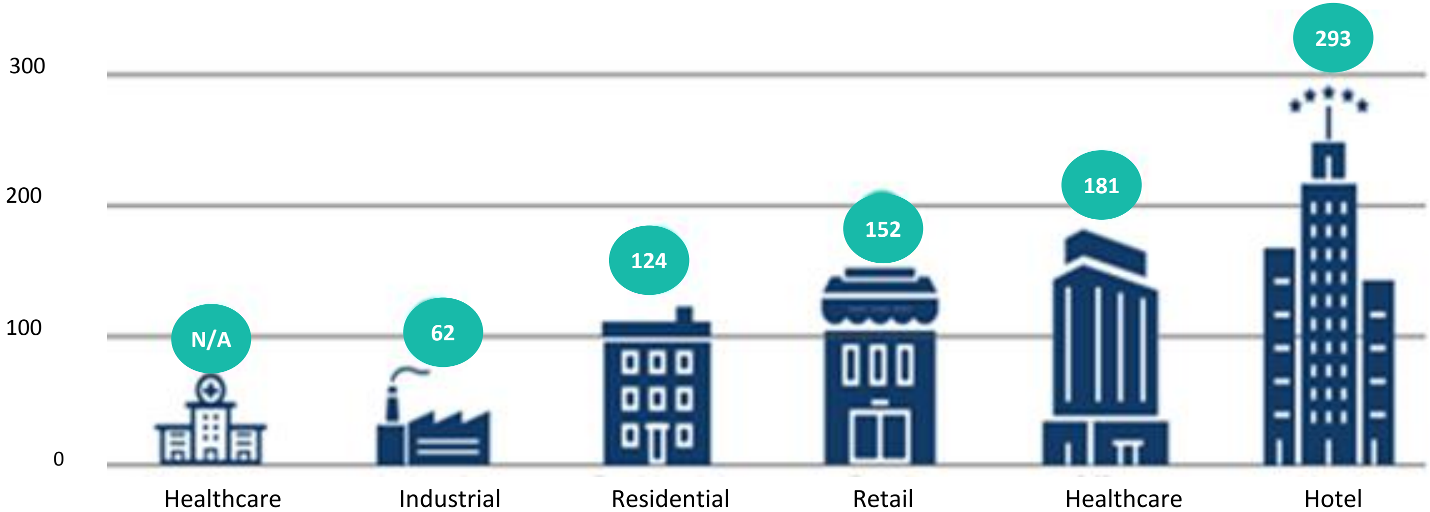
Environmental Risks & Opportunities in Hospitality

The Role of Hospitality in the Greater Environment

A unique environmental footprint:

- Hotels have a unique ecological impact, particularly given the 24/7 365 days per year nature of the business.
- It has been estimated that 75% of hotels' environmental impacts can be directly related to excessive consumption, mainly relating to energy consumption.
- Globally, the hotel industry emits close to 60 million tonnes of CO_2 per year, totalling at a cost of $7.5 billion.
- In total, this translates into the industry contributing to 1% of global greenhouse gas emissions.
- Simultaneously, the industry directly creates a total of 1.9 billion lbs of waste per year and accounts for 9% of global food waste.

Average Energy Intensity per Property Type (KW/m²):



 | *Sources: Sustainable Hospitality Alliance, Xerostech,Natran, Open Access Government.*

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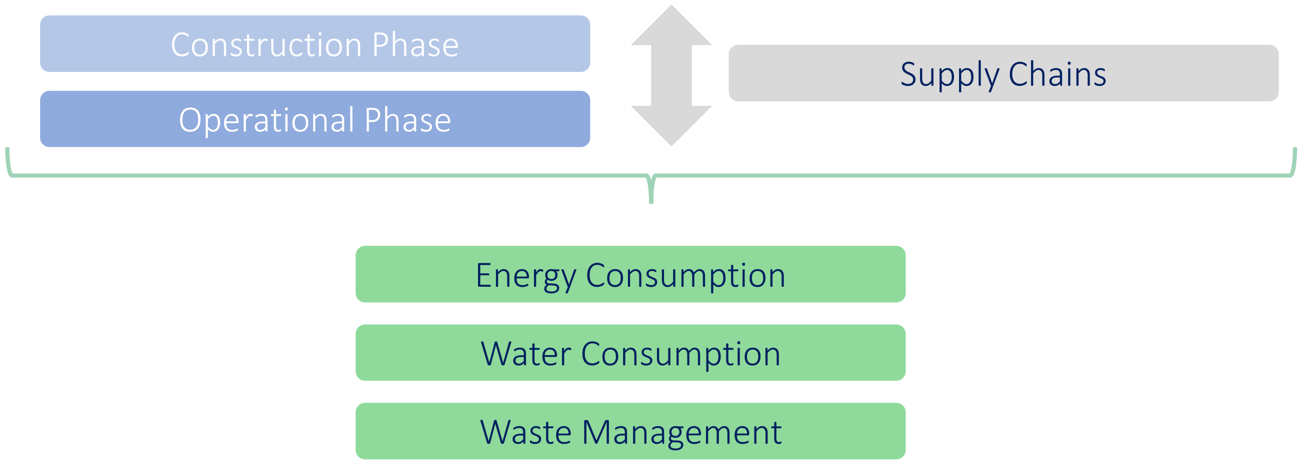
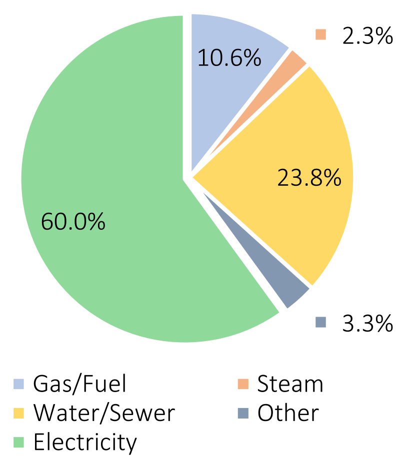
Breaking down the environmental impacts of the hospitality industry:



Key Impact areas for Improving Sustainability in Hospitality:

- In order to reach the broad goal of a more sustainable hospitality sector, resource efficiency, and thus environmental impact, will have to be managed in each of these areas across the lifecycle of hotel assets.
- This breakdown gives *'nine key impact areas'* across the lifecycles and supply chains of hotels. Impact areas in which there are opportunities to reduce environmental footprint of a hotel and to make cost savings.
- Accounting for 60% of hotel utility expenses, electricity consumption is the main target for improving efficiency.

Breakdown of Hospitality Utility Expenses:



 | *Sources: Hospitality Net, NAIOP.*

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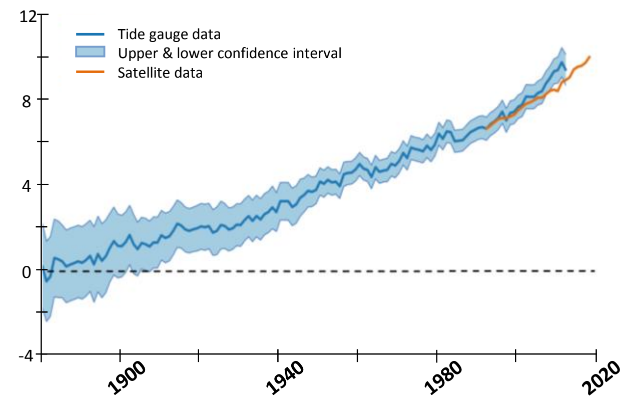
Exposure of the Hospitality Industry to the Climate Crisis:

- Given the global scope of the industry, hospitality is widely exposed to the effects of climate change.
- The most direct impacts of climate change come from the increasing frequency and severity of extreme weather events (rising sea levels and flooding, storms, and, droughts and wildfires). Geographical in their nature, the hospitality industry is exposed to each of them.
- With an estimated 80% of total global tourism being based on coastal areas, rising sea levels pose a significant risk to the industry as a whole.
- Extreme weather events have a tendency to depress real estate values, as previously seen with flood risks and house prices and also pose significant added costs in relation to insurance and, in extreme cases, un-insurability.

Global Average Sea Level Change (inches, relative to 1880):



The environmental risks to the industry can be broken down across broad geographical sectors:

- *Cities and Urban centres:* Are at an acute risk from water scarcity, with an estimated 150 million people currently living in cities with a water shortage. A figure that is predicted to reach 1 billion people, without intervention.

- *Beaches and Coastal areas:* With global sea levels predicted to rise by 0.6 metres by 2100, coastal hotels and resorts face a near existential threat over the long-term.

- *Countryside / Forest areas:* With longer and warmer seasons, wildfires have seen a significant uptick around the world. Most prominently over the past year in the US, Australia and Greece. Southern Europe is significantly exposed to this growing threat.

- *Mountain / Ski resorts:* Rising temperatures have lead to an inevitable reduction snowfall, significantly affecting ski seasons globally.

Risk of a Growing Sector:

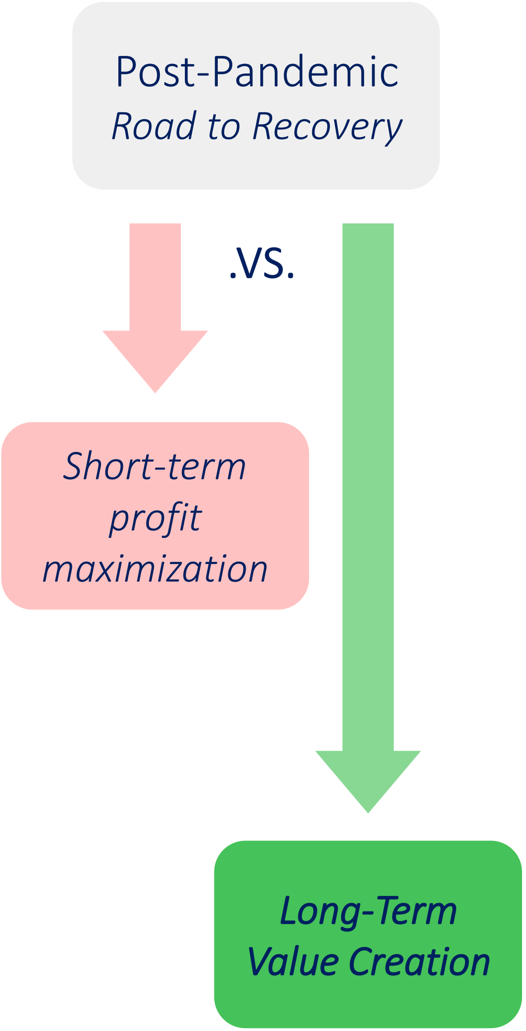
- While the growth of the industry is obviously something that we welcome, it presents significant risks if sustainable practices are not built into future projects, both to the industry itself and to the global environment.
- With an estimated future pipeline currently standing at 2.4 million rooms in development, it is more critical than ever to begin to manage the growth of the industry towards a more sustainable future.
- As we have previously outlined, increasingly projects that don't take into account face a number of risks. Including becoming "stranded assets" (unable to be sold, both to consumers and investors), facing higher costs of capital and also, in the long-term, a likely reduction in accessibility of financing mechanisms.

Opportunities in Mitigating Threats:

- The changing rhetoric surrounding global sustainability issues and awareness of the imminent risks present unique threats and also significant opportunities to the hospitality industry.

- Both the risks and opportunities are enhanced by the nature of building back stronger as part of the post-COVID recovery.

    - While the economic impact of the pandemic on hospitality has an added onus on those in the industry to maximize profit generation as quickly as possible to make up for the economic impact of the pandemic, there is a concern that this will be at the detriment of environmental concerns.
    - We however argue that it will be at the detriment of the industry not to incorporate environmental and more general sustainability factors into the post-COVID recovery, from a ethical but also an economic point of view.



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Mitigating the Environmental Impact of Hospitality - The Ethical and Economic Thing To Do

Enhanced revenue streams:

- With a growing awareness of the impact that humanity is having on the greater environment has come a growing demand from consumers for products that take their environmental impact into consideration.
- Growing consumer awareness of the issue present significant opportunities in tapping into these evolving consumer demands:

- *Increased Demand:* It is estimated that 68% of consumers take environmental concerns into account when booking accommodation, preferring eco-friendly options when available.
- *Reduced Price Sensitivity:* 67% of consumers surveyed are willing to spend at least 5% more on a travel to ensure that it has as low an environmental impact as possible.

- These numbers are only rising, and combined have a significant impact on potential future profit generation. Particularly given the risks to profit generation from not taking such concerns into consideration.

Reduced operating costs:

- Implementing more sustainable use of resources and management of waste is particularly pertinent given the energy intensity of hotels with energy consumption accounting for 60% of a hotels' carbon footprint.

- Gazprom estimate that simple steps such as switching to energy efficient bulbs can reduce costs by up to 50% against what are traditionally used, essentially halving expenditure on what accounts for around a 10% cost as a proportion of revenue.
- McGraw-Hill Construction estimate that implementing smart water management systems can reduce water consumption by 15% and (related) energy consumption by 11%, resulting in operating cost savings of 11%.

Strategies for mitigating environmental risk in Hospitality

- While the size of the footprint of hospitality presents a number of risks, it also presents significant opportunities to make resource consumption more efficient and reduce costs as a result.
- Below we outline examples of ways in which a hotel can minimize both its carbon footprint and energy and resource consumption:

Energy Management:

The automation energy conservation is a critical step, accounting for 60% of utility expenses:

- Replacing traditional lights with energy saving lighting with reduced energy consumption bulbs and sensors to automatically turn them on or off.
- Moving to using certified green appliances like dishwashers, refrigerators, and steam cookers on average water and energy usage by 10%.

Water Management:

Creating a water efficient system in a hotel may include:

- Installing water recovery and recycling systems.
- Upgrading food disposal systems, ovens, steam kettles, and steam cookers to use significantly less water.
- Using aerators on bathroom sinks to reduce water usage.
- Transitioning to low water laundry machines is estimated to save up to 80% of hotel water usage.

Waste Management:

- Establishing processes to compost waste.
- Make eco-friendly purchasing like purchasing locally products, it could reduce the hotel's waste and the impact on the environment
- Encouraging recycling among guests. This may include installing water stations available to guests in order to discourage the use of bottled water.


The Emerging Opportunity of
Green Finance in Hospitality

Green Finance in Hospitality – The Opportunity of the Horizon

Key Opportunities of Incorporating Environmental Concerns into Hospitality:

1. Expanded profit margins through utility savings
2. Increase revenues through satisfying consumer preferences through product differentiation
3. Reduce reputational risk
4. Future proof investment strategies
5. Safeguard against regulatory risk
6. Benefit from government incentives
7. Increase value and validation through certification of projects
8. Ensure the long-term supply and security of energy

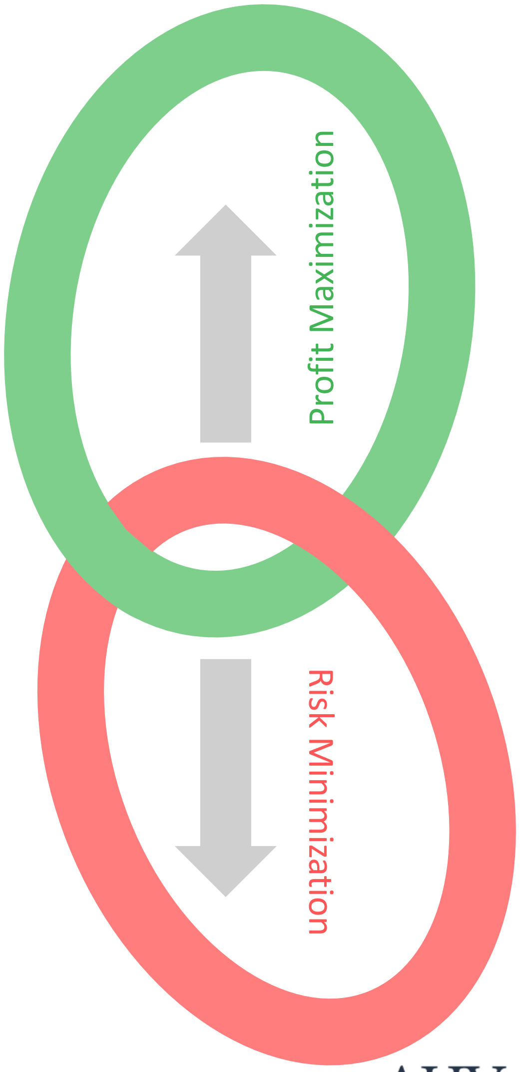
Overcoming Sort-Term Costs - The Opportunity of Green Finance:

- Implementing such strategies for reducing environmental impact and mitigating risks, present costs in the short-term.
- These costs understandably put off operators, particularly in today's post-pandemic world.
- As previously discussed, it is because of this that financial incentives and mechanisms need to be correctly aligned in order to make going green make financial sense.

Profit Maximization and Risk Minimization:

- While the hospitality industry trails the greater green finance industry by more than a decade, the emergence of green finance debt instruments present significant opportunities in terms of both profit maximization and risk minimization.
- What was once an unknown quantity in hospitality has rapidly emerged as a highly viable and attractive option for those not only seeking cheaper and greater access to financing but to set them apart from the crowd.

Profit Maximization and Risk Minimization are Inextricably Linked:



 | *Sources: Financial Times, GMO.*

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Green Finance in Hospitality – The Opportunity of the Horizon

Reduced costs of capital:

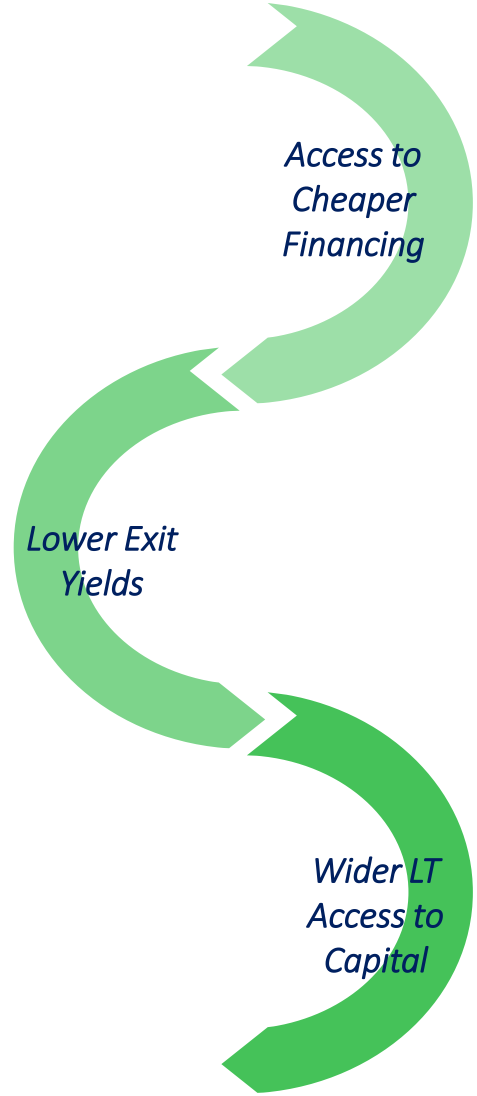
- As previously discussed, the yield on green bonds on average is today 0.15 percentage points cheaper in comparison with conventional bonds.
- Our experience however suggests that the gap is greater in hospitality than it is in the overall market.
- While precedents in hospitality are not as extensive as they are in the wider market, the recent Whitbread bond offers some suggests that the gap is potentially significantly wider in hospitality, with the bonds being between 0.7 and 1.325 percentage points cheaper than the average coupon rate for bond issuances by similarly rated (BBB- / Stable) companies.

Wider long-term access to capital:

- With an increasing appetite for climate conscious investments, investors and capital more broadly is rushing into projects that take such concerns into account.
- Most recently, $130 trillion assets have been brought under the acronym GFANZ (Glasgow Financial Alliance Financial Alliance for Net Zero) as a global climate change finance group.
- While such moves are often criticised for over promising and under delivering, it is another reaffirmation of global capital flows' commitment to greener investments.

Opportunities in Early Adoption:

- It is our belief that the nascent stage of development of green finance mechanisms in hospitality is where the greatest opportunities lie. Particularly in terms of getting out ahead of the crowd and still being able to take advantage of the ways in which such policies can allow certain assets to stand out from the crowd.
- Over time, such mechanisms are inevitably going to become the normal. While issuance is minimal today, we expect issuance in the industry to follow a similar trajectory as the overall green bond market. Which, after taking 11 years to reach $500 billion in cumulative issuance, took only an extra two years to surpass $1 trillion in cumulative issuance.



 | *Sources: Amundi, Eurasian Economic Review, Whitbread, Financial Times, Climate Bonds Initiative.*

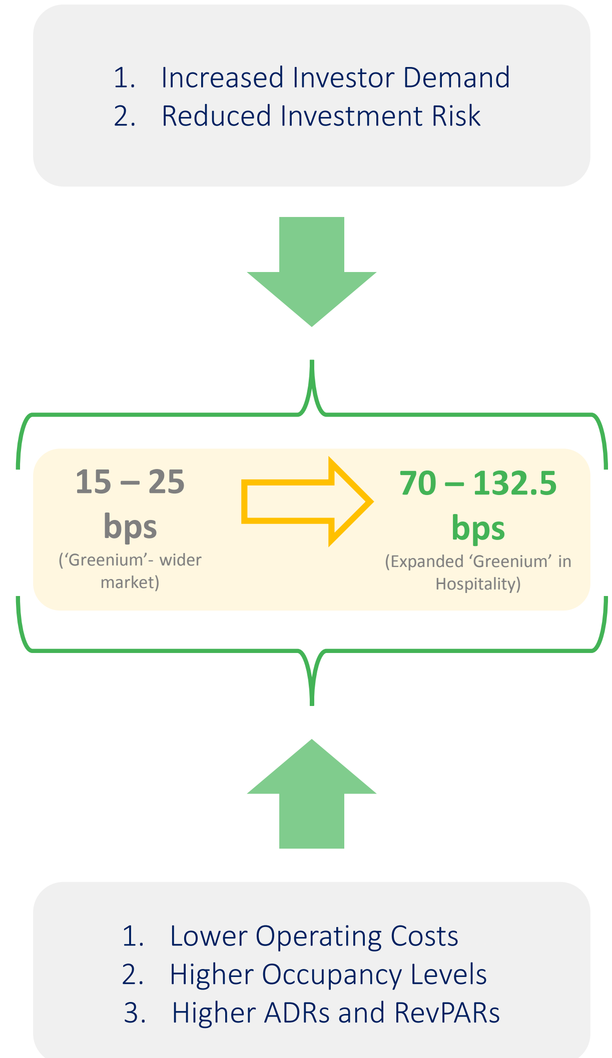
Green Finance in Hospitality – A Unique Opportunity

Wider Gap Between Green and Conventional Bonds in Hospitality:

- The gap between the cost of conventional financing and green financing in the wider market is attributed to:
  - *Investor Demand:* Regulatory and capital requirements today necessitate sustainability factors to be taken into consideration in investment decisions.
  - *Investment Risk:* Building environmental concerns into investment decisions at an early stage reduces risk in the long-term.
- We argue that this gap is wider in hospitality, as a result of the increased opportunity presented by integrating environmental considerations into hotels and a further reduction in investment risk from integrating such considerations.
- Namely, the advantages of integrating environmental concerns into hospitality revolve around:
  - *Lower operating costs* as a result of more efficient resource consumption and waste management.
  - *Higher occupancy levels* as a result of an increasing consumer demand for more sustainable products.
  - *High Average Daily Rates (ADRs) and Revenue Per Average Room (RevPAR)* as a result of decreased price sensitivity of consumers.
- Hospitality therefore presents a more attractive investment in terms of the transition to a more sustainable future than the average across the market.

Opportunity for smaller, more agile operators:

- While precedent activity has been focused on large operators, we see particular opportunity in taking advantage of this transition for the smaller, more agile operators who can make use of the examples set by precedent transactions.
- On the other hand, larger operators face issues with aligning interests of all those within their ecosystems. Particularly in cases where the operators don't own the buildings that they use.



 | *Sources: Amundi, Eurasian Economic Review, Whitbread.*

Case Study – The Londoner "Going Above and Beyond"

- The recently completed The Londoner Hotel on Leicester Square from Edwardian Hotels sealed a unique financing agreement in 2019 that set a number of firsts for green finance in hospitality. For the development, Edwardian Hotels secured a £175 million loan from HSBC UK, accounting for more than a third of the estimated £475 million build cost.

- The loan was the first in the hospitality to meet the Green Loan Principles (2018). Integration of sustainable principles throughout inception, planning, designing, construction and operation.

- Funding from the loan was contingent on the building exceeding BREEAM's 'Excellent' category for building environmental and sustainable performance. Strategies employed include:
    - Use of low environmental impact construction materials.
    - IMC Waste Station, grinds excess food waste down and feeds waste into a 'dewatering' system, leaving a solid matter a fraction of its original size.
    - Innovative liquid film ('Heatsavr') that will reduce energy loss and evaporation from the swimming pool.
    - 'Monika' Temperature Monitoring, which monitors performance of refrigerators preventing energy wastage. A significant impact area given their six onsite restaurants.
    - Heat network connection, contributing to the sustainability of neighbouring buildings.

- Overall, the hotel is estimated to use 30% less carbon than regulations require.

Key players that have emerged in Green Financing Hospitality:

- While in particularly early stages of development, a number of banks have emerged ahead of the crowd to provide green financing instruments to the hospitality industry. The most prominent players in green finance in hospitality in Europe currently include:

    - *HSBC:* $100 billion commitment to sustainable projects.
    - *BBVA:* €100 billion commitment to sustainable projects.
    - *Aareal Bank:* Unspecified commitment.

- Crucially, their early involvement has seen them develop frameworks and set precedents for future transactions.

HSBC UK: Making significant commitments to Green Finance generally and hospitality specifically:

- HSBC UK's 2019 loan to Edwardian for their development of The Londoner on Leicester Square set a number of precedents being the first green loan to be provided to the hospitality industry to be based on the GLPs.
- The first green hospitality loan provided to Edwardian and the precedents set are particularly important for those looking to get access to green finance given the banks commitment to provide $100 billion in sustainable financing by 2025. A goal that has the stated aim of enabling businesses to transition to a lower carbon economy.
- The importance of the financing of this project for the development of green finance in hospitality is highlighted by the comments of Alison Taylor, Head of Corporate Real Estate, Hotels at HSBC UK:

"This should be the first of many Green deals for the UK's hotel sector in the years to come as the industry plays its part in using sustainable finance to tackle environmental issues."

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Case Study – Whitbread "Setting a Framework"

WHITBREAD

Premier Inn

- In February 2021, Whitbread (owner of Premier Inn Hotels) took a historic step, issuing two green bonds, totalling £550 million.

Bond A: **£300mn.** due **May 2027** at **2.375%** interest rate.

Bond B: **£250mn.** due **May 2031** at **3.0%** interest rate.

Average Coupon Rate for (similar rating) **Non-Green Bonds** = **3.7%**

In obtaining the bonds, Whitbread laid out a framework that is aligned to ICMA's Green Bond Principles (GBP):

1. Use of Proceeds: from Green Construction to Green Operation and Sustainable Procurement the proceeds were required to be used according to ICMA requirements across 6 categories and in line with promoting the Sustainable Development Goals (SDGs).
2. Process for Project Evaluation and Selection: Conducted by the newly established Sustainable Finance Committee, who meet semi-annually.
3. Management of Proceeds: All eligible investments are allocated and tracked by the finance committee.
4. Reporting: Annual reporting system in place until proceeds of the bond have been fully allocated.

Meaningful Action or Back to Greenwashing?

- January 2021, preceding the bond issuance, Whitbread announced plans to install 600 EV charging point across their Premier Inn locations. However, with 800 total UK locations, this totals less than one per Inn.
- April 2021, Whitbread announced a pledge to reach net zero carbon emissions by 2040, a decade ahead of their previous commitment. The pledge included investments in installing solar panels at more locations and moving towards the use of an all electric fleet of vehicles.

Making Use of Lessons from Green Finance in Real Estate and Initial Precedent Transactions:

- While green finance as it relates to hospitality has only emerged in full form in 2019, it has developed at speed, borrowing significantly from the development of green finance in the wider real estate sector.

- We have seen this in recent green finance transactions in hospitality:
  - With loans being drawn up in accordance with the Green Loan Principles and making use of certifications – particularly the BREEAM certification.
  - And bond issuers making use of the green bond principles to draw up their own frameworks to outline justifications for accessing green finance and managing the funds.

Certifications - Product Differentiation and a clear route to accessing Green Finance:

- The use of certifications (such as BREEAM or LEED) is the area where we see the greatest potential, both to differentiate a project from the rest of the market in a tangible way but also in terms of the clear path that certifying a project with one of the internationally recognized providers lays out towards gaining access to green finance mechanisms.

Where Hospitality Diverges from the Wider Real Estate Market:

- While the construction of hotels is directly related to the real estate sector, the management of hotels diverges slightly from the precedents set.
- That being said, as previously outlined, the focus throughout the wider lifecycle of hotel assets remains on:
  - Improving resource use efficiency.
  - Reducing waste.

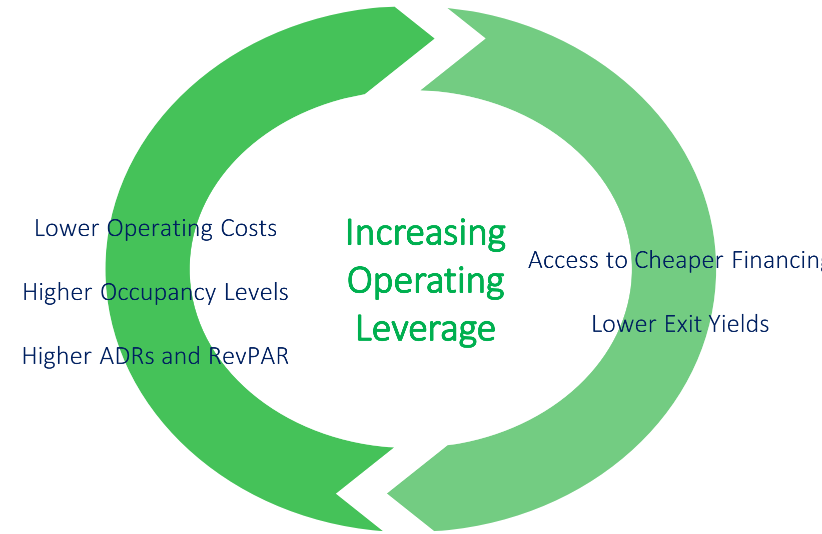
For a building to achieve BREEAM or LEED certifications it must use design and technology to minimise environment impact…

Sustainability must be built into the entire life cycle…

 | *Sources: Journal of Hospitality Financial Management, Tamil Brahmins, Green Building Insider.*

The Crucial Factors: Increasing Operating Leverage and Reducing Long-Term Risk:

- The potential for enhanced revenue streams and reduced costs have the potential to have significant impact on the operating profit margins of hotels that incorporate sustainable considerations into their businesses.
- This enhanced revenue and reduced costs increases the operational leverage of hotels that can take advantage of them, with increases to revenue flowing straight into operating profits, which is further increased by a reduction in operating costs coming from more efficient operations.
- The opportunities presented by profit maximization are further enhanced by the wider reductions to investment risk coming from pre-empting the shift towards a greener and more sustainable future.



Continuing Cycle of Value Generation:

- The Real Estate sector in particular has demonstrated the value-enhancing impacts of integrating sustainability concerns, on price, rental income, occupancy rate and capitalization rates.
- We see this translating into the hospitality sector in the form of high occupancy levels (as a result of evolving consumer demands), and higher ADRs and RevPAR (as a reduced consumer price sensitivity).
- The reduction in investment risk and increased opportunity for value creation are where we see the opportunities in accessing green finance mechanisms in hospitality with the finance community responding to the decreased risk and increased potential with more favourable financing products to aid with the transition.
- We see this as being a 'continuing cycle of value creation', with the current social trends and demands increasing access to cheaper green financing and cheaper green financing enabling further increases to efficiencies, cost reductions and revenue increases, further reducing financial risks and therefore reducing costs of financing.
- While implementing sustainable practices presents a disruptive and relatively costly process in the short-term, we argue that this cycle will create increasing value long into the future. With the initial transition aided in an economic sense by the access to cheaper financing options.

First Hospitality Based Green Loan: The Londoner

- **Date:** May 2019
- **Deal Size:** £175 million
- **Comments:** The first loan in the hospitality sector to meet the Loan Market Authority's GLPs, it was further contingent on the building achieving a BREEAM Excellent rating.

First Hospitality Based Green Bond: Pestana Hotel Group

- **Date:** September 2019
- **Deal Size:** €60 million
- **Comments:** The world's first bond issued to a hospitality company in accordance with the International Capital Market Association's GBPs. With a six year maturity, the offering was more than three times oversubscribed.

The Student Hotel Secured Green Loan for Two New Locations

- **Date:** November 2019
- **Deal Size:** €82 million
- **Comments:** TSH secured the innovative green loan from Crédit Agricole CIB. The structure combines characteristics of a green and sustainability-linked loan and is contingent on the locations achieving BREEAM 'Very Good' ratings.

First Green Loan in Spanish Hospitality: Beach Box Hotel Co.

- **Date:** December 2019
- **Deal Size:** €55 million
- **Comments:** The loan financing the construction of the Six Senses Hotel, Ibiza, is independently verified by Arup to ensure ESG criteria are met and to verify compliance with the GLPs. The project will be certified by BREEAM.

First Green Bond Issue in UK Hospitality: Whitbread

- **Date:** February 2021
- **Deal Size:** £550 million
- **Comments:** Issued in line with the GBPs, the two bonds total £300 million and £250 million, with a 2.375% coupon rate maturing in May 2027 and 3.00% maturing in May 2031 respectively.

 | *Sources: Hospitality Net, Hotel Owner, Boutique Hotelier, BBVA, Whitbread.*

Green Finance Transactions in European Hospitality

Qatari Diar Secure one of the UK's largest single property Green Loans

- **Date:** May 2021
- **Deal Size:** £450 million
- **Comments:** The Syndicated Loan coming from HSBC and Credit Suisse among others is contingent on the former US Embassy development meeting pre-specified environmental criteria.

Cerberus and Highgate Secure Green Loan for Dorsett City Purchase

- **Date:** September 2021
- **Deal Size:** Undisclosed
- **Comments:** The 5-year senior loan is collateralised against the Dorsett City Hotel, London, and is contingent on the borrowers maintaining the sustainability of the asset that is currently BREEAM 'Very Good' certified.

Accor Issue Green Bond with Green House Gas Reduction Targets

- **Date:** November 2021
- **Deal Size:** €700 million
- **Comments:** The sustainability-linked loans involve Accor committing to key emission reduction targets by 2025, against a 2019 benchmark. Carrying a 2.375% coupon, the issuance was more than 3x oversubscribed.

 | *Sources: Property Week, City A.M., FT, Aareal, Accor.*

Request for Further Information Can Be Addressed To:

Andrew Harrington
Partner
T: +44 (0) 20 7958 9677
M: +44 (0) 7768 643 527
E: aharrington@ahvassociates.com

Vasilis Makamitzoglou
Senior Associate
T: +44 (0) 20 3170 88447
M: +44 (0) 7741 194 325
E: vmakamitzoglou@ahvassociates.com

Panagiotis Kalogiros
Associate
T: +44 (0) 20 7958 9675
M: + 44 (0) 7732 933987
E: pkalogiros@ahvassociates.com

Nick Pagonis
Analyst
T: +44 (0) 20 7958 9676
M: +44 (0) 7926 109942
E: npanagonis@ahvassociates.com

William Newton
Intern
T: +44(0) 20 7958 9678
M: +44(0) 7807 919803
E: wnewton@ahvassociates.com

Markella Georgaroudaki
Intern
T: +44 (0) 20 7958 9675
M: +44 (0) 7305 24 7977
E: mgeorgaroudaki@ahvassociates.com

AHV Associates
52 Brook Street, Mayfair
London, W1K 5DS
www.ahvassociates.com

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