Climate risk disclosures in real estate investment trusts (REITs)

A study of Singapore REITs

EY
Building a better working world

REITAS

EY and REITAS embarked on this study to analyze the progress made by Singapore REITs in climate risk disclosures

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Foreword by EY

As one of the world's leading professional services organizations, EY is deeply committed to building a better working world — one that is sustainable, inclusive and resilient. We recognize the critical role the real estate sector, specifically, real estate investment trusts (REITs), play in our economies and societies. We also understand the unique challenges and opportunities that climate change presents to this sector.

EY has a dedicated team that serves real estate owners and operators, publicly-traded REITs, nontraded REITs, private REITs and more. We work with real estate clients to capitalize on the sustainability agenda and adopt approaches toward developing climate disclosures and sustainability reports.

This report, developed in collaboration with the REIT Association of Singapore (REITAS), demonstrates our commitment to supporting the REIT industry's sustainability journey. It analyzes the progress made by Singapore REITs (S-REITs) in climate risk disclosures, benchmarked against global peers and leading practices using the *EY Global Climate Risk Barometer* methodology.

The findings of this report highlight that S-REITs have made considerable progress in climate disclosures since Singapore Exchange (SGX) announced mandatory climate-related reporting for FY 2022 onwards. Testament to this, S-REITs, on average, perform better in terms of climate disclosures compared to their global sector peers. Nevertheless, there are areas for improvement. This report seeks to share insights, leading practices and practical examples that can help S-REITs as they progress on their sustainability journeys.

The report also underscores the crucial role that REITAS can play in supporting S-REITs in their sustainability efforts. As a trusted advisor to the REIT industry, EY is committed to working closely with REITAS and S-REITs to address the challenges identified in this report and seize sustainability opportunities.

We hope this report serves as a valuable resource for S-REITs and other stakeholders in the REIT industry. We thank REITAS for the opportunity to collaborate on this important subject and express our appreciation to all the S-REITs that contributed to this report. We look forward to working with the ecosystem of stakeholders to navigate the evolving landscape of climate risk disclosures and build a more sustainable and resilient REIT industry.

Liew Nam Soon
EY Asean Regional Managing Partner
EY Singapore and Brunei Managing Partner

Foreword by REITAS

The REIT Association of Singapore (REITAS), the industry association representing the Singapore REIT (S-REIT) sector, was formed in 2013 with the objective of strengthening the S-REIT industry. Over the last 10 years, we have kept to our mission well by working with various stakeholders including regulators, investors and industry professionals, among others, to ensure a conducive policy and operating environment. We are glad to play our part in the success of the S-REIT industry, which has grown to a market capitalization of approximately S$100 billion with properties in over 25 countries across different asset classes.[1]

Given that mandatory climate reporting is relatively new in Singapore (FY 2022 was the first year of mandatory climate reporting for listed REITs under SGX requirements), we thought it would be timely to do an initial assessment of the coverage and quality of climate disclosures made by S-REITs. This exercise, therefore, serves as a fundamental benchmark, enabling us to gauge the S-REIT industry's progress in future years. Additionally, we sought to understand better the challenges S-REITs encountered in their climate reporting. We also wanted to leverage EY teams and their knowledge and experience to recommend strategies for overcoming these challenges while exploring how REITAS can assist our members through this vital journey.

This report comprehensively addresses all the above aspects. It is heartening that the report finds that S-REITs, on average, perform better in terms of climate disclosures, both in terms of coverage and quality, than our global sector peers. This gives us confidence that we are off to a good start! The report also highlights several areas of improvement across the four pillars of climate reporting, with actionable recommendations for each identified gap. It is time to diligently implement the report's recommendations to enhance S-REITs' climate reporting and accelerate the industry's decarbonization efforts.

In closing, on behalf of REITAS, I would like to thank EY for their collaboration in preparing this critical report. I would also like to thank the many REITs who have shared their sustainability practices with us. With continued collaboration and determined efforts, we aim to make the S-REIT industry more climate-resilient and do our part in the broader global efforts toward addressing and adapting to the challenges of climate change.

Low Chee Wah
President
REIT Association of Singapore (REITAS)

1. "Chartbook: SREITs & Property Trusts," *SGX Research*, July 2023, Singapore Exchange Limited.

Executive summary

In response to the evolving landscape of climate risk disclosures and the increasing emphasis on sustainability, the Monetary Authority of Singapore (MAS) and Singapore Exchange Regulation (SGX RegCo) have set requirements for the REITs sector.

In December 2020, the MAS issued guidelines on environmental risk management, setting out expectations for all fund management companies and real estate investment trust managers on governance strategy, portfolio construction, risk management and disclosure of risk information. These guidelines also emphasized the role of asset managers as stewards of corporations and set standards for disclosure consistent with international reporting frameworks. Corporations were given an 18-month transition period, with compliance expected from June 2022 onward.

In December 2021, SGX RegCo announced mandatory climate reporting for all issuers on a "comply or explain" basis, which was made effective for financial years starting on or after 1 January 2022. In July 2023, Singapore's business reporting, accounting, and corporate services and markets regulators, Accounting and Corporate Regulatory Authority (ACRA) and SGX RegCo proposed that public and large private companies with at least S$1 billion in revenues in Singapore will be required to provide climate-related disclosures aligned with the IFRS' newly published ISSB disclosure standards from FY 2025 and FY 2027 respectively.

This report is a collaborative effort between EY and REITAS to analyze the progress made by S-REITs in climate risk disclosures. The report leverages the methodology in the *2022 EY Global Climate Risk Barometer* to benchmark the coverage and quality of disclosures by S-REITs against global peers and best practices based on the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

The report finds that S-REITs have made considerable progress in climate disclosures since mandatory climate-related reporting was effective for financial years starting on or after 1 January 2022. On average, S-REITs perform better in climate disclosures than their global peers. The study also identified existing gaps and, therefore, opportunities for improvements.

Based on the TCFD pillars, the following are key actions that S-REITS can undertake to bridge the gaps identified and strengthen their climate-related disclosures.

Governance

- Integrate sustainability governance at the manager and property manager level
- Describe board considerations of climate-related issues when making overall business strategic decisions

Strategy

- Evolve and improve climate scenario analysis through greater rigor and sophistication, as well as assess the financial impact of climate-related risks and opportunities

Risk management

- Provide more significant details on the incorporation of climate-related risks into the overall enterprise risk management (ERM) framework

Metrics and targets

- Measure, disclose and set targets for Scope 3 greenhouse gas (GHG) emissions
- Detail clear time horizons for targets set

Beyond these specific recommendations on disclosures that REITs can adopt, there are some other general areas for improvement in climate risk management and disclosures that were gleaned from interviews with S-REITs. These include:

1. Greater engagement and collaboration with stakeholders including investors, tenants, regulators, and the community

2. Continuous improvement of climate risk disclosure approach in order to keep up with the rapidly evolving sustainability standards

3. Leverage technology to establish more efficient data management and reporting practices

This report also features case studies to illustrate best practices and provides practical examples for other REITs looking to accelerate their climate disclosure journeys. Beyond disclosures, the selected examples highlight successful strategies and innovative approaches to climate risk management in the REIT industry and recommends six levers that they can focus on to decarbonize and accelerate toward their net-zero goals.

As climate change-related risks continue to intensify globally, there will be a continued growing emphasis on transparent and robust climate reporting. Understanding their key climate risks and opportunities can help companies galvanize internal and external action toward reducing their impact on the planet.

In summary, this report serves as a guide for S-REITs, providing them with the necessary tools and insights to navigate the complex landscape of climate risk disclosures and sustainability.

1

Navigating climate risks

Climate and environmental risks are systemic risks impacting the global economy and are the core focus of global risk perceptions over the next decade – yet they are the risks for which we are collectively seen to be the least prepared.[2]

According to the Swiss Re Institute, climate change could wipe off up to 18% of GDP in the worldwide economy by 2050 if global temperatures were to rise by 3.2 degree Celsius[3] (in the most severe scenario), and this will affect all sectors in varying degrees. Lenders and investors now weigh climate risks when making lending and investing decisions, potentially affecting financing accessibility and costs. The *EY Global Corporate Reporting and Institutional Investor Survey* found that investors are seeking more comprehensive climate-related disclosures from companies to gauge financial implications and adaptation strategies. 99% of investors utilized companies' ESG disclosures as a part of their investment decision-making, and 73% said that organizations have largely failed to create more enhanced reporting encompassing both financial and ESG disclosures.[4]

In response to the lack of consistent and quality reporting, the TCFD introduced disclosure recommendations for climate risks and opportunities in 2017 to improve the quality and coverage of climate-related disclosures, gaining traction among global reporting entities. Several years later, the International Sustainability Standards Board (ISSB) was formed in 2021 to develop investor-focused sustainability standards.

In 2023, ISSB released the IFRS Sustainability Disclosure Standards (IFRS S1 and IFRS S2), with IFRS S2 focused on climate-related disclosures in alignment with TCFD recommendations. While effective from 1 January 2024, the adoption of reporting frameworks will vary by jurisdiction. Notably, Singapore intends to adopt IFRS S2, streamlining the transition for companies prepared for TCFD implementation. As such, there is a great impetus on reporting, with boards required to provide climate-related disclosures in line with regulatory standards.

2. "The Global Risks Report 2023 18th Edition," *Insight Report*, January 2023, World Economic Forum, 2023.
3. "The Economics of Climate Change," *Mitigating Climate Risk*, 22 April 2021, Swiss Re, 2023.
4. "How can corporate reporting bridge the ESG trust gap?" *EY Global Corporate Reporting and Institutional Investor Survey*, November 2022, EYGM Limited, 2022.

Physical risks

Physical risks are the direct consequences of climate change that can affect assets and operations. These risks can be acute, such as those resulting from extreme weather events; or chronic, such as those resulting from long-term shifts in climate patterns. These events include exceptionally high precipitation and flooding, hurricanes and wildfires, as well as chronic risks such as subsidence and sea level rise in low-lying areas.

Morgan Stanley Capital International (MSCI) highlights that under default scenarios, properties from the MSCI Global Property Index are projected to lose 3.7% in value due to physical risks. Furthermore, the report notes that less than one-quarter of firms are estimated to have adaptation plans, indicating a significant gap in preparedness for these climate-related risks. The report suggests that every dollar invested in climate adaptation could result in US$2 to US$10 of net economic benefit, emphasizing the importance of proactive measures in mitigating these risks.[5]

In addition to loss of rental income and significant capital expenditure that could be required to repair and maintain assets that are exposed to physical risks, these risks can lead to a decrease in property values located in vulnerable areas over the medium and long term.

After Hurricane Sandy in 2012, housing prices in New York's flood zones decreased by up to 8% five years post-event.[6] Similarly, research also found a permanent price discount for impacted properties, with properties exposed to flood risk experiencing slower price appreciation after the storm than equivalent but unexposed properties.[7]

The physical risks are also expected to impact the cost of insurance and insurability of real assets. For instance, State Farm and Allstate, two of the largest property insurers in California, have stopped selling new home insurance policies due to soaring wildfire and construction costs. This has led to an "insurance unavailability crisis" with a 70% surge in enrolments in the Fair Access to Insurance Requirements (FAIR) Plan, a high-rate, minimal coverage provider of last resort, since 2019.[8] Research in the UK found that increased insurance premiums and excesses were of concern to commercial real estate occupiers as well.[7]

5. "Five Misconceptions About Climate-Change Risk in Real Estate," 25 February 2022, MSCI Inc., 2023
6. "Why housing values in New York's flood zones have stayed down after Hurricane Sandy," 11 May 2018, NewsHour Productions LLC, 1996 - 2023.
7. Clayton, J.; Devaney, S.; Sayce, S. and van de Wetering, J., "A review and analysis of the literature," *Climate Risk and Commercial Property Values*, August 2021, United Nations Environment Programme Finance Initiative, 2021.
8. "It's not just State Farm. Allstate no longer sells new home insurance policies in California", Los Angeles Times, 2 June 2023, *Los Angeles Times*, 2023.

The most relevant physical risks for the real estate sector include:

Sea level rise and coastal flooding

Sea level rise and coastal flooding can lead to property damage, loss of rental income and decreased property values.

Wildfires

Millions of residential and commercial buildings have been built in areas prone to wildfires. With the intensity and severity of such fires increasing, the likelihood of these properties being destroyed by a wildfire rises.

Inland flooding

Due to the greater frequency and severity of coastal storms or extreme precipitation events, inland flooding can increase property damage. Rapid urbanization can also cause the costs of repairing and maintaining properties to rise.

Subsidence[9]

An increasing number of real estate assets are likely to be at risk of subsidence in the coming years, potentially causing serious structural damage to buildings.

Extreme storms and wind

Greater severity and frequency of extreme storms, such as hurricanes, can cause billions of dollars of damage. Extreme storms can negatively impact the value of commercial real estate in the near term.

Heat and water stress

Rising heat will create new cooling needs for buildings, increasing operating costs. Water stress will also lead to higher operating costs due to increased water prices, the need to improve water efficiency, and the regulation of water use.

9. Subsidence is defined as the more or less gradual sinking or caving in of an area of ground due to geological forces, mining operations, etc. (from Oxford English Dictionary)

Transition risks

The role of the real estate sector in constructing and operating buildings around the world made it responsible for around 37% of global GHG emissions in 2021.[10] As a result, the ambition to achieve net-zero demands major changes to the sector and presents it with various transition risks.

Policy and legal risks

The most significant risk is associated with the increase in carbon pricing, a policy tool that assigns a cost to carbon pollution, incentivizing polluters to reduce their emissions. At the time of writing, World Bank data shows that 37 carbon tax regimes and 36 market-based mechanisms have been implemented or scheduled so far, considering both national and sub-national initiatives. As of April 2022, 30 more initiatives are also under consideration.[11]

The EU Emissions Trading System (ETS) introduced in 2005 is the first and biggest example of a market-based mechanism, while the first carbon tax regimes were established in the early 1990s in the Nordic countries. Applying carbon pricing to the built environment is complex due to factors like long building lifecycles and multiple stakeholders. Beyond these measures, there will likely be significant cost implications for the real estate sector due to the implementation of mandatory zero-carbon-ready building energy codes. According to the International Energy Agency's (IEA) latest tracking report (as of 2022) for building envelopes, about 80 countries have mandatory or voluntary codes in place. This represents an increase of 30% in countries with energy codes since the Paris Agreement in 2015, which accelerated previous adoption trends.[12]

Technological risks

The transition to a low-carbon economy is driving technological innovation. For example, the rise of electric vehicles (EVs) has implications for real estate infrastructure, such as the need for EV charging stations in residential and commercial buildings. However, the adoption of these technologies can also lead to obsolescence risks for properties that fail to adapt.

Market risks

The transition to a low-carbon economy can lead to shifts in market demand. Properties with poor energy efficiency ratings may become less attractive, leading to a decrease in property values. The *Bank of England's 2021 Climate Biennial Exploratory Scenario*[13] assessed the impact of transition scenarios on mortgage losses for banks till 2050. The exercise showed that impairment rates will be high for properties of which their potential energy efficiency ratings belong to the lowest categories of "F" and "G", making these properties unmarketable by 2050.

Reputational risks

Companies in the real estate sector face reputational risks if they fail to align with the transition to a low-carbon economy. Stakeholders, including investors, tenants and the public, are increasingly demanding that companies demonstrate their commitments to sustainability through their actions.

10. Global Alliance for Buildings and Construction, "UN environment programme", *Tracking progress*
11. "Carbon Pricing Dashboard," *What Can We Do/Data*, The World Bank Group, 2023.
12. "Energy Efficiency 2022," IEA Publications, November 2022, International Energy Agency, 2022.
13. "Results of the 2021 Climate Biennial Exploratory Scenario (CBES)", *Stress Testing*, 24 May 2022, Bank of England, 2023.

While the transition to a low-carbon economy presents various challenges, it also offers opportunities for companies that can successfully navigate this transition. Some opportunities that S-REITs can explore are largely bucketed under resource efficiency and cost savings, the development of new products and services, access to new markets, and building resilience along the supply chain. By understanding and managing these risks, companies can position themselves to thrive in a low-carbon economy with new investment opportunities for REITs.

Resource efficiency and cost savings

The move to more efficient buildings (i.e., green buildings and super low-energy buildings of which green certification has been obtained), while requiring higher upfront costs, will eventually lead to long-term cost savings due to reduced operating costs (e.g., through efficiency gains) and an increased value of fixed assets (e.g., highly rated energy-efficient buildings). A study on the cost effectiveness of the Building Construction Authority's (BCA) Green Mark Schemes, whereby buildings were analyzed and compared from a lifecycle cost perspective, found that owners of Green Mark buildings reap greater energy and water savings throughout their lifecyle, and these savings outweigh the early investment cost.[14]

Development of new products and services

REITs can explore a range of new products and services that expand their climate resilience. For example, they can collaborate with technology partners to create smart solutions that integrate data analytics, Internet of Things devices and AI to optimize resource consumption in properties; develop environmentally conscious amenities for properties like shared EV charging facilities, bike-sharing programs, or green community spaces catering to the evolving preferences of tenants. They can also offer training programs and workshops to educate tenants and employees on climate and sustainability practices; develop green and sustainable financial products that cater to ESG-related investments like green and sustainability-linked bonds and loans, and more.

Access to new markets

With the exploration of new financial assets, such as green bonds and loans, REITs would be able to increase the diversification of their assets. Another example is looking at renewable energy projects in certain markets whereby REITs can explore partnerships or investments in solar or wind energy, to diversify their revenue streams and access renewable energy markets.

Building resilience along the supply chain

REITs can proactively address challenges facing their supply chains such as extreme weather events, resource scarcity and regulatory changes. Participating in renewable energy programs and adopting energy efficiency measures and resource substitutes or diversification present key opportunities for REITs. This may include renewable energy integration, green infrastructure, sustainable logistics, circular economy initiatives and digital supply chain solutions.

Building resilience through resilience planning can potentially lead to increased market valuation, increased reliability of supply chains and ability to operate under various conditions, and increased revenue through exploring new products and services, as mentioned above, related to ensuring resiliency.

14. "The myth of costly green buildings", *Build SG Magazine*, 16 April 2020, Building and Construction Authority, 2023.

2

Current state of climate reporting among S-REITs

Overview

This report covers the most recently available TCFD disclosures of the 40 S-REITs trading in the SGX, at the time of writing (July 2023). We analyzed the climate disclosures based on coverage and quality, using our *EY Global Climate Risk Barometer* methodology, which is briefly as follows.

Coverage refers to a company disclosing some level of information compliant with each of the TCFD recommendations, regardless of the quality of information provided.

Quality refers to the extent to which a company's disclosures meet all 11 TCFD recommendations.

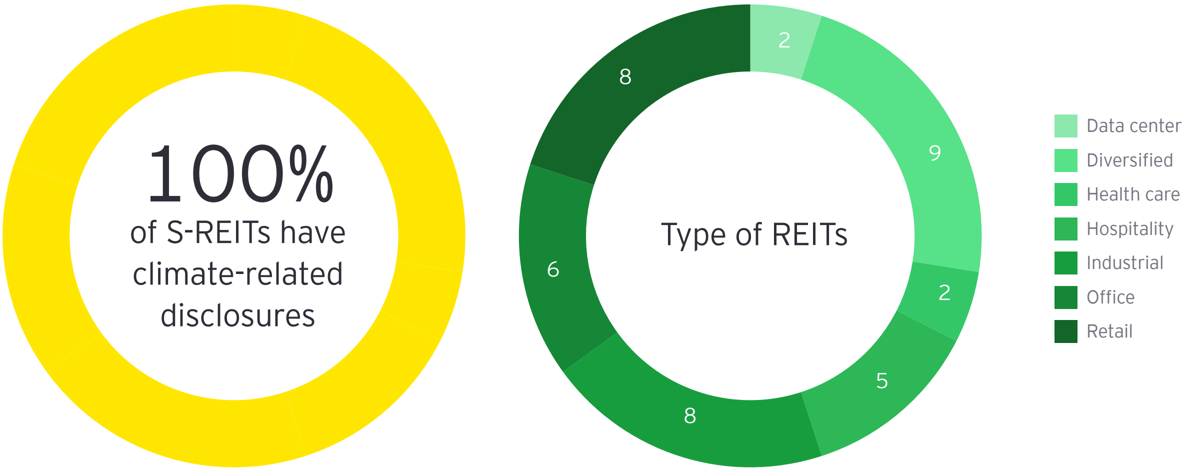
The TCFD recommendations are structured around four core thematic areas of governance, strategy, risk management, and metrics and targets.

Figure 1
The TCFD recommendations and supporting recommended disclosures[15]

Governance	Strategy	Risk management	Metrics and targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
Recommended disclosures			
a) Describe the board's oversight of climate-related risks and opportunities. b) Describe management's role in assessing and managing climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term. b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning. c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2 degree Celsius or lower scenario.	a) Describe the organization's processes for identifying and assessing climate-related risks. b) Describe the organization's processes for managing climate-related risks. c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process. b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks. c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

15. Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures, October 2021, The Task Force on Climate-related Financial Disclosures.

Figure 2
Overview of S-REITs' climate-related disclosures and a classification breakdown of S-REITs

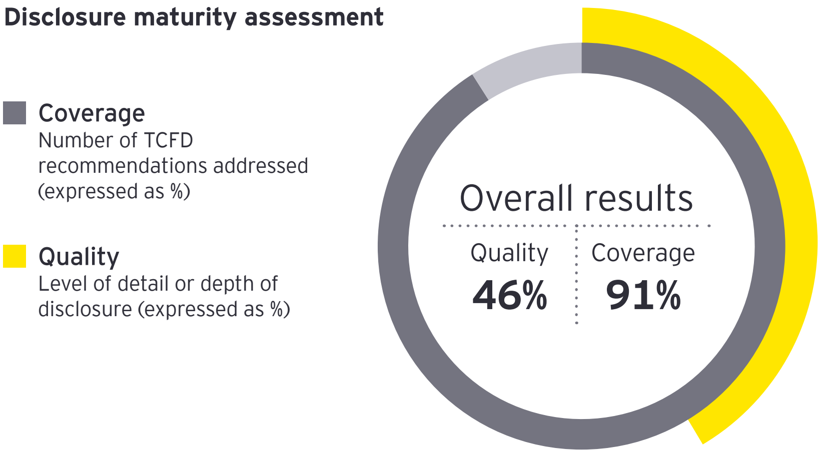


Our analysis has highlighted the following key findings:

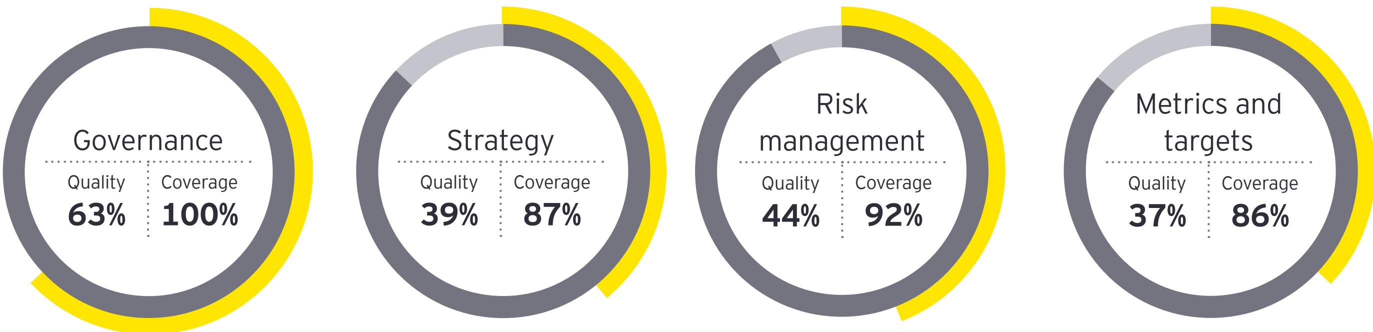
- All the S-REITs covered in the study have climate-related disclosures in their latest sustainability reports. This is aligned with the SGX listing requirement that all issuers classified under the financial sector (as identified by TCFD), which applies to all REITs, must provide mandatory climate-related disclosures for financial years commencing 1 January 2023. The option to explain is only applicable for non-compliance with specific TCFD recommendations rather than the entire set of climate-related disclosures.
- 55% of the S-REITs have initiated their climate-related disclosures for FY 2022, in line with the mandatory climate-related disclosures requirement by the MAS. The remaining 45% began their climate reporting prior to FY 2022 and have some level of maturity within their climate reporting.

Figure 3
Overview of results showing the average coverage and quality of climate-related disclosures across S-REITs, and a breakdown by TCFD pillars

Disclosure maturity assessment



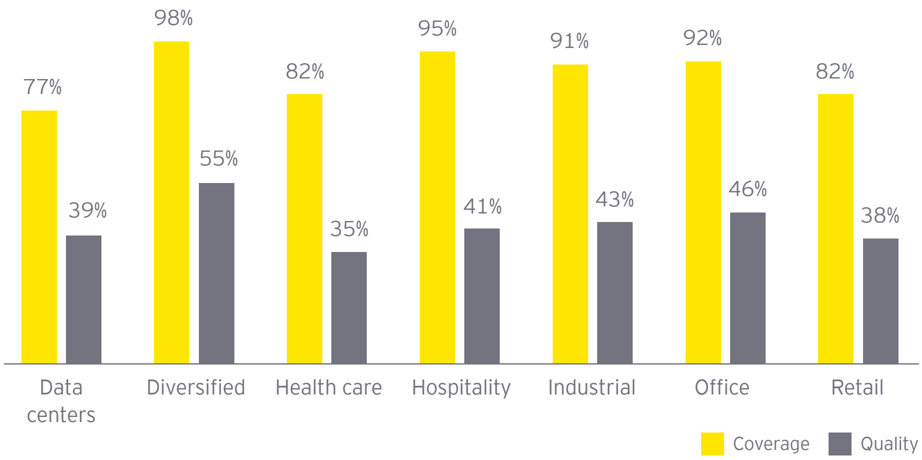
Thematic area



- An initial baseline study was conducted of the coverage and quality of climate-related disclosures across the S-REITs by the TCFD pillars. The overall results by pillar are illustrated below. The average coverage and quality of disclosures under the governance pillar of TCFD are highest across S-REITs, while there are similar coverage and quality scores across the rest of the pillars in the TCFD framework.

- S-REITs were further split into the following asset class categories: office, retail, industrial, health care, hospitality, data centers, and diversified. Comparative analysis across the various asset classes shows that diversified S-REITs have, on average, the highest coverage and quality scores, with 98% and 55%, respectively.

Figure 4
Average coverage and quality of climate-related disclosures across S-REITs, broken down by asset class



Benchmarking S-REITs against global peers

A benchmarking analysis was done to compare the average coverage and quality of climate-related disclosures reported by the S-REITs against the global real estate sector average outlined in the *2022 EY Global Climate Risk Barometer*.[16]

- Analysis shows that S-REITs score higher across the average coverage score in all four TCFD pillars against global real estate sector peers. Most notably, the coverage of the governance section in TCFD is 100% across S-REITs, compared to the global sector average of 84%.
- In terms of the average quality of climate-related disclosures, S-REITs also score better than the global sector average overall. However, S-REITs can focus their efforts on improving the quality of disclosures in the metrics and targets pillar, given that they trail slightly, with a quality score of 37% compared to the global sector average of 43%.
- The average coverage and quality disclosures for the governance section across S-REITs are the highest across all TCFD pillars compared to global sector peers. As such, S-REITs have set a good foundation for climate risk management by establishing governance structures, defining board and management roles and responsibilities of climate-related risks and opportunities.

Figure 5

Coverage of climate-related disclosures by S-REITs compared against the global real estate sector average in the *EY Global Climate Risk Barometer* for each of the TCFD pillars

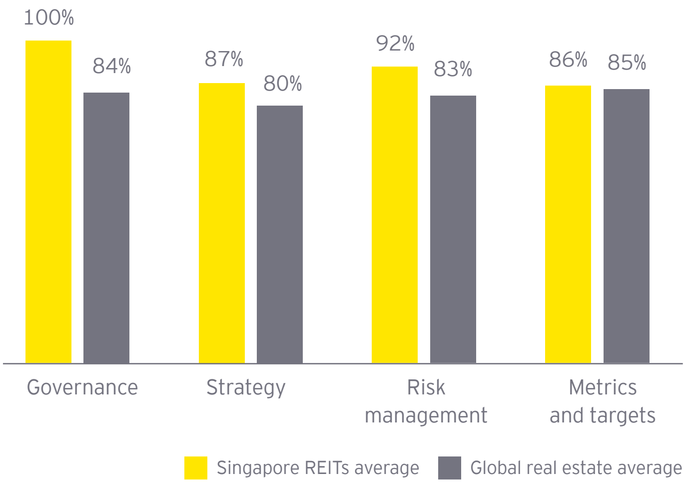
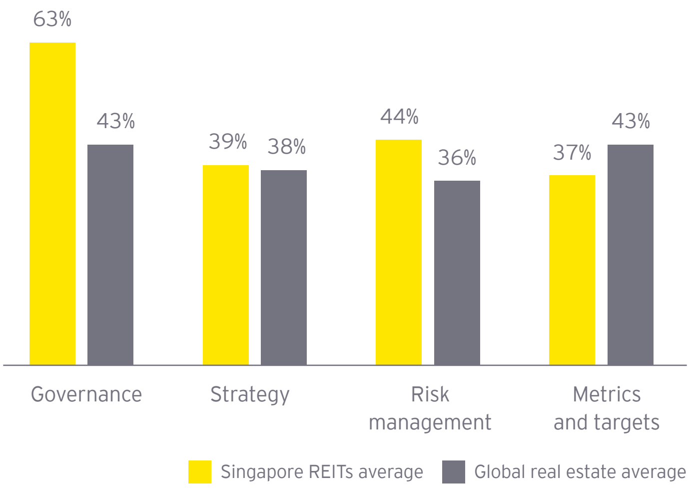


Figure 6

Quality of climate-related disclosures by S-REITs compared against the global real estate sector average in the *EY Global Climate Risk Barometer* for each of the TCFD pillars



16. "When will Climate Disclosures start to impact decarbonization?", *EY Global Climate Risk Barometer*, September 2022, EYGM Limited, 2022.

3 Insights and recommendations

Governance

Disclose the organization's governance around climate-related risks and opportunities

Recommended disclosures

a) Describe the board's oversight of climate-related risks and opportunities.
b) Describe management's role in assessing and managing climate-related risks and opportunities.

Our analysis of climate-related disclosures delves into the 11 recommendations of the TCFD framework, divided into the four key pillars – governance, strategy, risk management, and metrics and targets. To provide insights and recommendations on S-REITs' disclosures, we evaluate the coverage and quality of S-REITs' disclosures across the 11 recommended disclosures of TCFD. A breakdown by asset class is also provided to share insights on sector maturity across S-REITs.

Figure 7

Coverage of S-REITs' disclosures under the governance section of the TCFD recommendations framework, broken down by asset class

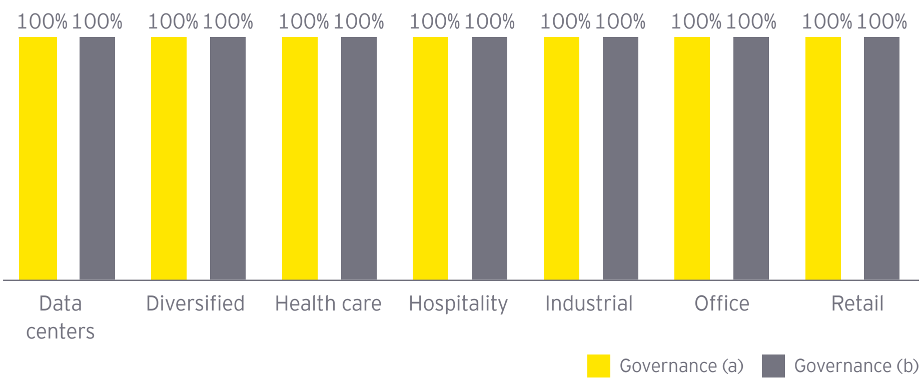
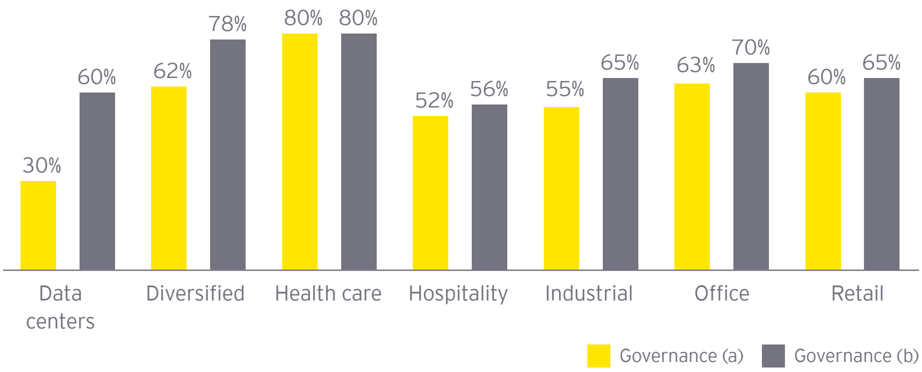


Figure 8

Quality of S-REITs' disclosures under the governance section of the TCFD recommendations framework, broken down by asset class



Observations

- Overall, by asset class breakdown, 100% of S-REITs have some level of information on governance-related TCFD disclosures. However, the quality of governance-related disclosures are mixed, with health care S-REITs leading with a score of 80% across governance recommendations (a) and (b).
- While the majority of disclosures mention the board overseeing the identification, evaluation and management of ESG issues, their risk management policies, and the formulation of sustainability strategies, only some S-REITs describe the involvement of the board in considering climate-related issues when reviewing and guiding strategy for annual budgets, business plans and other major plans of action.
- For example, Sabana Industrial REIT's board and senior management conduct evaluations of the impact of climate-related risks and opportunities when reviewing and guiding Sabana Industrial REIT's strategy, performance objectives, risk management policies, annual budgets and business plans (including major capital expenditures, acquisitions and divestitures).
- 48% of the reports mention the frequency of board meetings. The majority meet at least twice a year, while some meet at least quarterly to discuss climate-related issues and monitor and oversee progress against goals and targets for such issues.
- In some companies, sustainability committees, which comprise senior management and working teams from various departments, are appointed to assist the board by reviewing and recommending sustainability strategies, policies and other key sustainability matters, including climate-related risks and opportunities for the board's approval.

CapitaLand Ascendas REIT: Regional and functional diversity in governance can strengthen sustainability teams

CapitaLand Investment Limited (CLI), the sponsor of CapitaLand Ascendas REIT, has a CLI board committee – the strategy and sustainability committee – that is responsible for overseeing CLI's sustainability strategies and goals, including providing guidance to management and monitoring progress in achieving the goals of sustainability initiatives. The manager has also instituted a sustainability committee (SC) led by the CEO and a sustainability working committee (SWC) at the working level, which comprise representatives from various functions and is headed by the Chief Financial Officer. To ensure cross-learning and growth across the organization, the SWC has also co-opted representatives from the asset managers of different countries. This enables team members to share and learn from global best practices, thereby enhancing sustainability performance within the portfolio.

In order to drive holistic sustainability governance, the SWC also works closely with the sustainability governance bodies of the REIT's sponsor, CLI. This includes various sustainability work teams and committees, which support the implementation of initiatives under relevant ESG pillars. To ensure that sustainability decisions are operationally feasible, sustainability work teams under both the manager and the sponsor would typically include representations from various business units.

Keppel REIT: A robust governance structure is the necessary foundation for smooth TCFD implementation

Keppel REIT's strong governance is exemplified through its two-year roadmap that was developed to enable the REIT to progressively align with the recommendations of the TCFD framework, laying the foundation for continued implementation over the long term. Keppel REIT's governance disclosures provide a detailed statement of the board's involvement and responsibilities around climate-related issues. An ESG committee at the board level was set up in 2022 to manage climate-related risks and opportunities, and it convenes on a biannual basis. They further detail the responsibilities of the sustainability working committee, including the various functions within the organization that are responsible for monitoring performance related to ESG.

At the asset level, Keppel REIT also ensures that its asset management team engages with both property managers and tenants to manage climate-related matters.

Recommendations

Moving forward, S-REITs can consider the following:

- **Integrate sustainability governance at the manager and property manager level:** It is recommended that S-REITs incorporate sustainability governance at the manager and property manager level to show a level of rigor to drive sustainability at the manager level. CapitaLand Ascendas REIT's sustainability management structure is an example of the integration of a sustainability committee at the manager level (refer to page 17).
- **Describe board consideration of climate-related issues when making overall business strategic decisions:** S-REITs should progressively incorporate climate-related issues material to their organization into their overall strategic business actions and policies. Incorporating these issues would lead to a greater and more impactful organizational response toward key climate issues identified under the strategy and risk management areas of the TCFD framework.

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning where such information is material.

Recommended disclosures

a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.

b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.

c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Figure 9

Coverage of S-REITs' disclosures under the strategy section of the TCFD recommendations framework, broken down by asset class

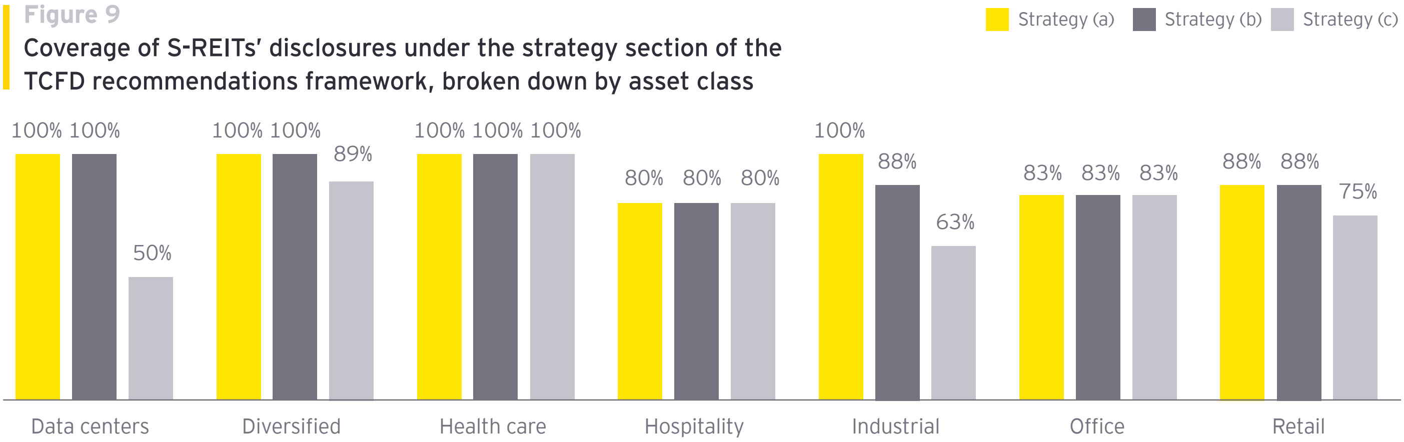
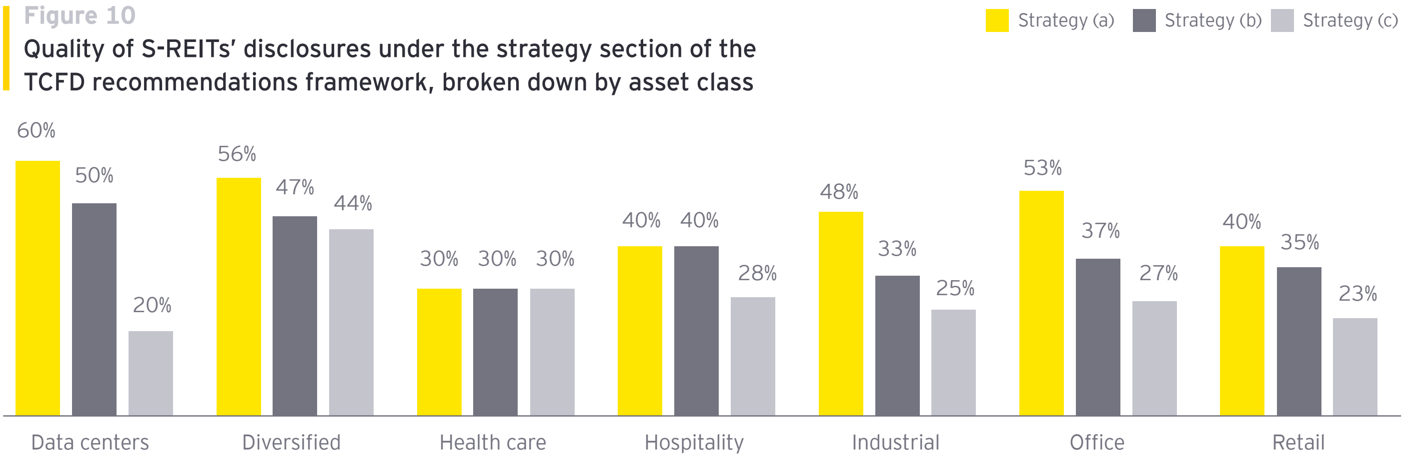


Figure 10

Quality of S-REITs' disclosures under the strategy section of the TCFD recommendations framework, broken down by asset class



Observations

- Health care S-REITs lead the way in their coverage of disclosures under the strategy section of the TCFD framework with a score of 100% across all strategy recommendations. The rest of the asset classes are also making headway in their disclosures.
- The quality of disclosures is observed to be lagging slightly, with recommended disclosure (c) being less developed than the other disclosures across all asset classes, apart from the health care asset class.
- S-REITs have begun their journey of conducting qualitative climate scenario analysis on their portfolio, whereby climate scenarios are chosen and assessed against the S-REITs' portfolio across different time horizons (typically short-, medium-, and long-term horizons), and some have utilized data sets and quantitative models to illustrate potential pathways and outcomes. Some REITs used the Shared Socioeconomic Pathways (SSPs) referenced in the latest Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6) to select relevant scenarios for analysis.[17] Scenarios were also selected following the recommendations by TCFD requiring companies to consider a 2 degree Celsius or lower scenario, as well as a scenario with increased physical climate-related risks.
- Across the S-REITs we observe similar physical and transition climate-related risks surfacing as a result of climate risk assessments:

Physical risks	**Acute**	‣ Fluvial and coastal flooding ‣ Fire risk ‣ Extreme heat waves
	Chronic	‣ Rising sea levels ‣ Rising mean temperatures ‣ Increased wind speeds ‣ Water stress
Transition risks	**Regulatory, policy and legal**	‣ Rise in stringent green requirements for buildings ‣ Increased pricing of GHG emissions ‣ Enhanced reporting requirements
	Market	‣ Changing customer behavior ‣ Increased demand for climate-related disclosures
	Reputation	‣ Risk of climate litigation as stakeholder expectations evolve, impacting the organization's image
	Technology	‣ Risk of obsolescence ‣ Reduced competitiveness resulting from the failure to adopt new technologies that address the impacts of climate change

17. "Synthesis Report," *Sixth Assessment Report*, 20 March 2023, The Intergovernmental Panel on Climate Change, 2023.

- In terms of recommended disclosure (b), there are a few S-REITs that have begun holistically incorporating the impact of climate-related risks and opportunities into their financial planning. For example, in FY 2022, Keppel DC REIT conducted a climate scenario analysis on its operational assets to understand how climate-related physical and transition risks and opportunities could impact its portfolio.

S-REITs have responded to their identified climate-related issues through a myriad of initiatives to address risks and opportunities material to their business.

- As a baseline, nearly all S-REITs have at least an energy reduction plan in place to reduce their energy consumption levels (including fuel, electricity, water, and waste), and as a result their Scope 1 and 2 GHG emissions. Many energy reduction plans implemented by S-REITs include increasing investments in renewables in areas such as the availability of electric vehicle charging facilities, solar panel installation and the use of LED lighting in properties.
- Many S-REITs also pledged their commitments to obtain green building certifications such as LEED, ENERGY STAR, WiredScore, Fitwell and BOMA 360, etc. Roughly 10% of S-REITs have disclosed their commitments to achieve BCA Green Mark Platinum Super Low Energy (SLE) status for their buildings. One such building is LogisTech, owned by CapitaLand Ascendas REIT, which was the first logistics property in Singapore to be awarded the Platinum SLE certification in 2020. This means that the building has met BCA's criteria of being the best-in-class energy performing Green Mark Building that achieves at least 60% energy savings above the 2005 building code.[18]

Recommendations

Moving forward, S-REITs can consider the following:

- **Evolve and improve climate scenario analysis:** Most S-REITs have only embarked on their first or second year of undertaking climate scenario analysis. Greater rigor and sophistication can be applied in S-REITs' climate scenario analysis as they mature in their climate reporting. Particularly, they can articulate why certain climate scenarios are chosen for risk assessments, the description of scenarios, and key variables obtained from scenarios for the analysis (for example, determining carbon prices under each scenario).

  Also, reporting can further mature by using quantitative approaches based on existing external scenarios and models (e.g., those publicly available or provided by third-party providers), or developing in-house modeling capabilities to improve the nuance and specificity of strategy and risk management responses to climate-related risks and opportunities.
- **Assess the financial impact of climate-related risks and opportunities:** The analysis identified a lack of assessment of the financial impact of climate-related risks and opportunities among S-REITs. While risk ratings may be applied for each individual risk, it is left vague as to whether the risks have material financial implications for the S-REIT's business over time. It is important that S-REITs evaluate the likelihood and potential financial impact of risks and opportunities. Such findings can be used by the board to develop the appropriate climate budget for the organization.

18. "Super Low Energy Programme", *Sustainability*, Building and Construction Authority, 2023.

Lendlease Global Commercial REIT (LREIT): Using climate scenarios to identify physical and transition risks, and their impacts on the business

In FY 2022, LREIT was part of Lendlease Group's TCFD Business Impact Workshops, where more than 100 Lendlease Group senior leaders were asked to identify LREIT's positive and negative potential climate-related impacts. In order to incorporate a financial perspective, reference was also made to revenue impact relative to baseline strategy. Participants of the workshop also identified mitigating actions to reduce LREIT's sensitivity to the identified impacts.

This exercise was coupled with a climate-related risk assessment conducted on LREIT's properties, namely Jem and 313@somerset. The climate-related risk assessment allowed LREIT to zoom in on risks with moderate impact and likelihood by 2050, such as heat waves.

The climate scenarios used by Lendlease Group are as follows:

- **Polarization (3-4 degree Celsius global temperature change):** Mapped to Representative Concentration Pathway (RCP) 6.0, this scenario represents a constant but incremental approach to climate change mitigation, where the world continues to be polarized by climate change. National self-interest takes precedence over multilateral cooperation.
- **Paris alignment (2-3 degree Celsius global temperature change):** Mapped to RCP 4.5, this scenario represents delayed action on climate change resulting in a late, uncontrolled, rapid decarbonization pathway that is market-driven.
- **Transformation (well below 2 degree Celsius global temperature change):** Mapped to RCP 2.6, this scenario represents a societal-driven, controlled and early rapid decarbonization pathway toward a zero-carbon future, where global emissions peak in 2020 and are close to zero in 2040.

The scenarios are based on peer-reviewed scientific and academic research and have been tested with a broad range of stakeholders. Each scenario is associated with different potential climate impacts for LREIT.

Risk management

Disclose how the organization identifies, assesses and manages climate-related risks.

Recommended disclosures

a) Describe the organization's processes for identifying and assessing climate-related risks.

b) Describe the organization's processes for managing climate-related risks.

c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.

Figure 11

Coverage of S-REITs' disclosures under the risk management section of the TCFD recommendations framework, broken down by asset class

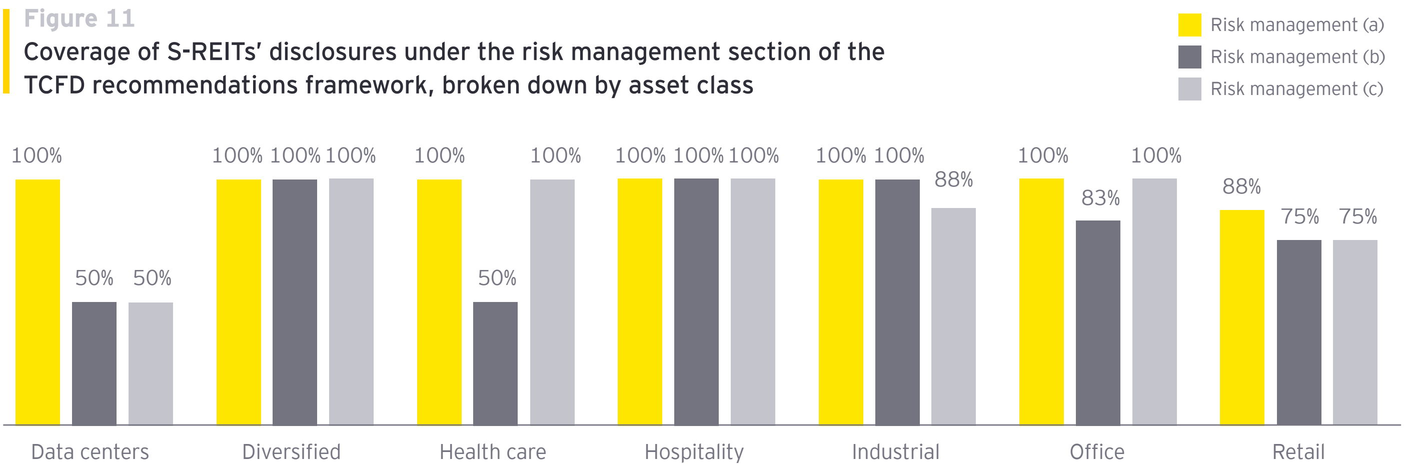
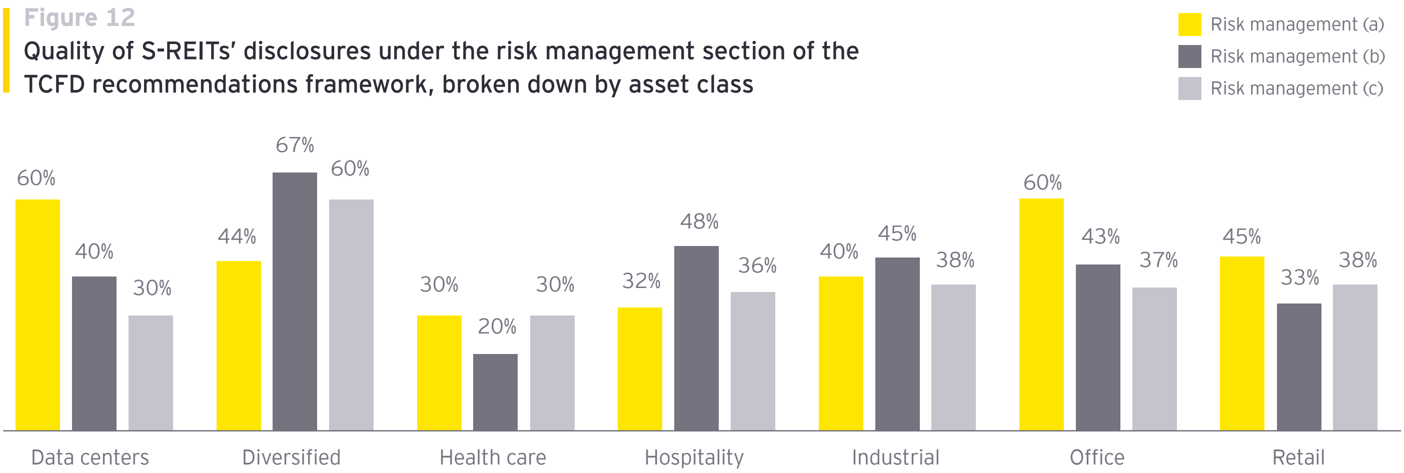


Figure 12

Quality of S-REITs' disclosures under the risk management section of the TCFD recommendations framework, broken down by asset class



Observations

- Diversified and hospitality S-REITs lead the coverage of climate-related disclosures, with 100% across the three risk management recommendations under the TCFD framework. Quality of disclosures vary across the asset classes, with diversified and office S-REITs leading, while health care S-REITs lag slightly.
- All S-REITs within the study have some level of procedure or policy in place within their risk management, as a response to the climate scenario analysis that they have conducted as part of the strategy section of the TCFD framework.
- The majority of S-REITs that have risk management disclosures have described their processes for identifying and assessing climate-related risks, including plans to manage climate-related risks and opportunities and incorporate them into the overall organization's ERM framework. Having said that, details on how climate-related risks are integrated are typically lacking.
- Several S-REITs also have a Responsible Property Investment Policy in place that details processes for assessing climate risks when sourcing for investments. For example, IREIT Global Group Pte. Ltd. incorporates a detailed review of each potential investment by respective investment teams, including a range of ESG factors (for example, checks for green building standards, energy efficiency requirements, generation of onsite renewable energy, energy ratings, and the socioeconomic impact of the project on local communities). Their analysis processes are being formalized through the implementation of a proprietary ESG analysis grid based on the Global Real Estate Sustainability Benchmark (GRESB). Building on this, S-REITs can consider expanding and improving their Responsible Property Investment Policy by incorporating climate risk considerations into their due diligence procedures as well.

Recommendations

Moving forward, S-REITs can consider the following:

- **Provide greater detail on incorporating climate-related risks into the overall ERM framework:** S-REITs can provide more information on how they incorporate climate-related risk management into their overall risk management. For example, they can record climate-related risks in an enterprise-wide database as new risk categories. Within the reporting escalation processes, they should look into the review of climate-related risks by the management committee and the board as part of overall risk reports and as an agenda item in risk reporting meetings.

  Also, details on risk management process ownership and responsibilities at the business unit level, management level and board level are lacking across S-REITs. This may include greater details on the S-REIT's overall process of risk management and incorporation of climate-related risks, and how the S-REIT manages them (e.g., to mitigate, transfer, accept or control risks), and how the S-REIT determines financial materiality to prioritize climate-related risks.

Elite Commercial REIT: setting targets to integrate environmental risks into their ERM framework

Elite Commercial REIT has developed concrete targets to implement their environmental risks into their overall ERM framework. In fact, under their ESG material topic, climate change, the REIT's primary 2023 target is to integrate environmental risks into their ERM framework.

In the past few years, the REIT has already instituted a governance structure to support the effective management of environmental risks. The board has overall responsibility to ensure that environmental risks are effectively managed at the REIT. The board considers climate-related risks and opportunities to develop appropriate strategies. The management updates the board regularly on material ESG risks, and the board has ultimate responsibility for sustainability reporting. The sustainability committee supports the board in this endeavor by reviewing and approving sustainability reporting and the TCFD disclosures. The board is also assisted by the audit and risk committee (ARC) in examining the adequacy and effectiveness of internal control policies and procedures to ensure that a robust risk management framework and internal control system are maintained. Elite Commercial REIT also details the manager's responsibilities for managing climate-related risks and opportunities.

Metrics and targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Recommended disclosures

a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions, and the related risks.

c) Describe the targets used by the organization to manage climate-related risks and opportunities, and performance against targets.

Figure 13

Coverage of S-REITs' disclosures under the metrics and targets section of the TCFD recommendations framework, broken down by asset class

Metrics and targets (a)
Metrics and targets (b)
Metrics and targets (c)

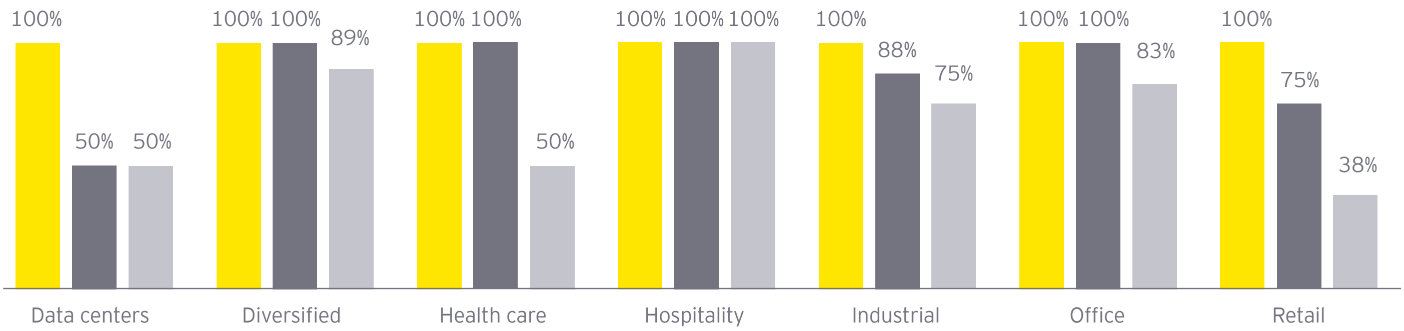
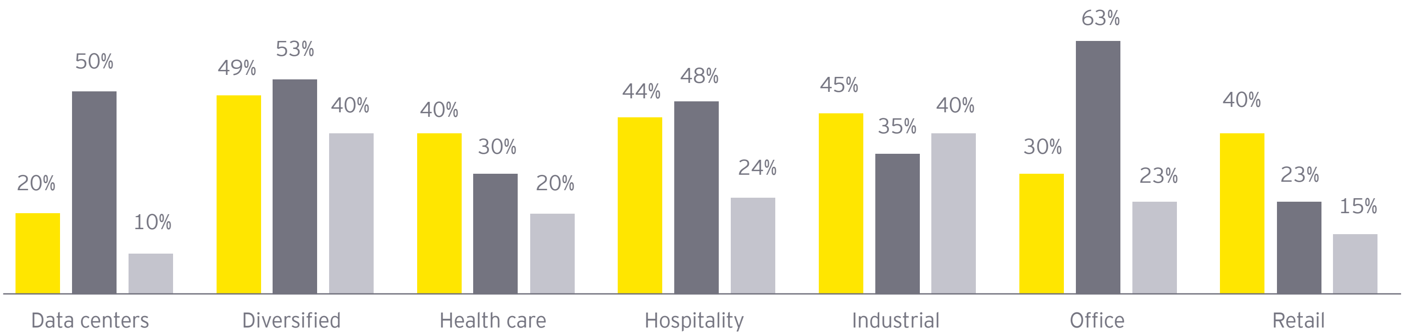


Figure 14

Quality of S-REITs' disclosures under the metrics and targets section of the TCFD recommendations framework, broken down by asset class

Metrics and targets (a)
Metrics and targets (b)
Metrics and targets (c)



Observations

- Out of the TCFD recommendations under the metrics and targets section, recommended disclosure (c) appears to be lacking in coverage and quality scores across some asset classes. Recommended disclosure (c) details that organizations should describe the targets used to manage climate-related risks and opportunities, and performance against targets. This suggests that S-REITs overall may approach climate-related target-setting later in their climate reporting journey. This is also consistent with the SGX's illustration of a possible phased approach to climate-related disclosures consistent with the TCFD recommendations, whereby target-setting in qualitative terms is only introduced in year two of a three-year implementation journey.
- 68% of the S–REITs reported on their Scope 1 GHG emissions, 83% reported on their Scope 2 GHG emissions and 28% reported on their Scope 3 GHG emissions. The current state of Scope 1 and 2 GHG emissions disclosures is more advanced as compared to Scope 3 GHG emissions. However, these percentages of GHG emission disclosures are expected to increase in the next year or so, as many companies have already stated their intentions to improve and develop their Scope 3 GHG emissions reporting.
- Only a few S-REITs mentioned the value of assets vulnerable to climate-related risks. Further analysis shows that most S-REITs have disclosed their efforts to align themselves with climate-related opportunities, but only a handful disclosed a quantitative value committed toward advancements in climate-related opportunities.

Recommendations

Moving forward, S-REITs can consider the following:

- **Measure, disclose and set targets for Scope 3 GHG emissions:** According to the UN Global Compact, Scope 3 emissions account for 70% of the average corporate value chain's total emissions.[19] A lack of this data would be a hindrance to financial market participants who require the information to allocate capital in line with decarbonization targets. Scope 3 for REITs include tenant consumption, embodied carbon of the buildings and other purchased goods and services. As most REITs may not have such data, they could estimate their Scope 3 emissions before making use of primary data from tenants and suppliers.
- **Detail the timeframes of targets set by the organization:** While some S-REITs have set targets against key climate-related metrics, they are typically linear and only consider one timeframe. S-REITs should consider developing more detailed timelines that consider short-, medium-, and long-term targets with a detailed roadmap on how to achieve them. This ensures the targets set by the organization contribute to its wider sustainability goals and ambitions.

19. "2022 Reducing Scope 3 Emissions - Webinar Series," UN Global Compact Network UK, 2023.

Frasers Centrepoint Trust: Measurable targets are key to success

In line with its sponsor Frasers Property Limited, Frasers Centrepoint Trust (FCT) has targeted to achieve net-zero carbon status by 2050, with a roadmap in place that details carbon reduction strategies that they aim to implement in their properties spanning Scope 1, 2 and 3 GHG emissions, coupled with specific targets and interim timelines. These strategies span across improving energy efficiencies, increasing renewable energy mix, addressing tenant energy consumption and practising sustainable procurement as well as waste and water management. FCT is also currently preparing to submit targets to the Science Based Targets initiative for validation in FY 2023.

FCT is also aligned to its sponsor's long-term goals to green-certify 80% of its owned and asset-managed properties by 2024, and to finance a majority of its new sustainable asset portfolios with green or sustainable financing by 2024. In relation to the former, as of December 2022, 100% of properties owned and asset-managed by FCT are certified BCA Green Mark Gold or higher, including 48% certified Green Mark Platinum. Hougang Mall is the latest property in FCT's portfolio to be accredited with the BCA Green Mark Platinum certification in November 2022. Hougang Mall has been made more energy- and carbon-efficient through upgrading and retrofitting. As for the latter, FCT has raised the proportion of green loans to 49.8% as at 30 June 2023 from 37.9% as at 31 March 2023. Such metrics unlock climate-related opportunities consistent with their business strategy and long-term targets to move toward a low-carbon economy.

4

Transition plan to net-zero

Net-zero commitments among S-REITs

There are observed distinctions between the various commitments made by S-REITs. According to the World Green Building Council, there are two different net-zero definitions that organizations may align with.

Net-zero operational carbon refers to reducing the amount of carbon dioxide emissions associated with building operations on an annual basis (high energy efficiency and fully powered from onsite or offsite renewable energy sources) to a level that is consistent with reaching net-zero at the global or sector level in 1.5 degree Celsius pathways.

Net-zero whole life carbon refers to, in addition to net-zero operational carbon, upfront carbon and other embodied carbon across the building lifecycle being reduced to a level that is consistent with reaching net-zero at the global and sector levels in 1.5 degree Celsius pathways.[20]

Based on our analysis, 30% of S-REITs have disclosed their net-zero commitments, ranging between net-zero operational carbon and net-zero whole life carbon commitments. Most S-REITs have set commitment by 2050, with few aiming to reach this target earlier by 2030.

Net-zero roadmaps are observed to be established or are being established, alongside commitments. Roadmaps typically include concrete pathways toward achieving net-zero, including quantitative interim targets to achieve it. Out of this, however, only a handful have publicly disclosed the alignment of their net-zero commitment with Science Based Targets initiative (SBTi)-aligned targets.

30%

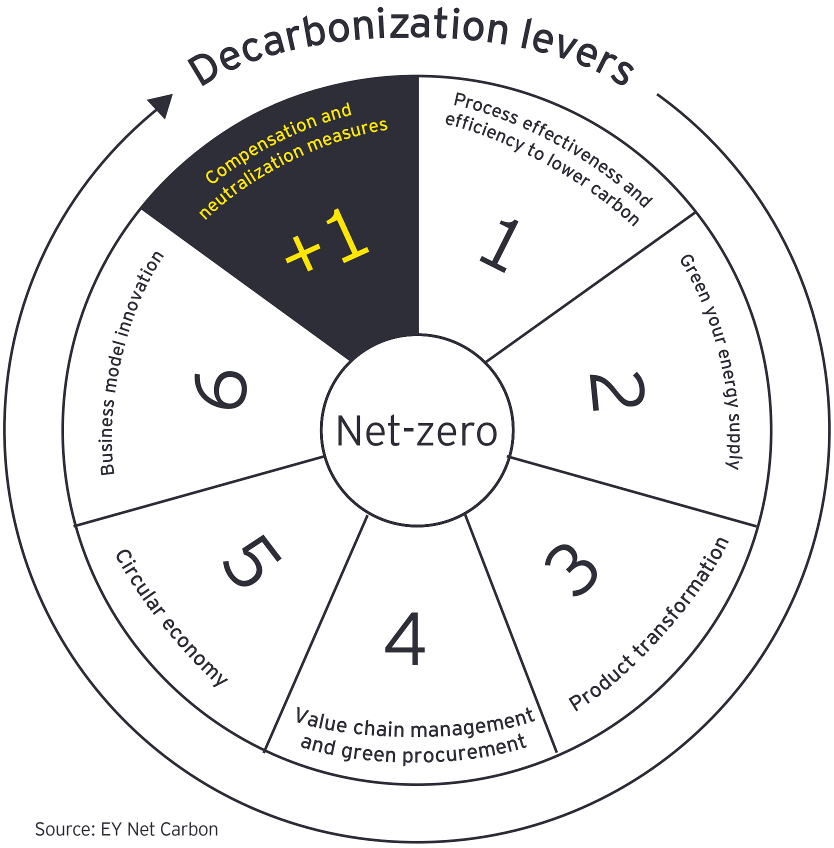
of S-REITs have disclosed their net-zero commitments, ranging between net zero operational carbon and net zero whole life carbon commitments.

2050

Most S-REITs have made net-zero commitments for either Scope 1 and 2 GHG emissions or net zero whole life carbon by 2050.

20. "Advancing Net Zero", *Commitment Glossary*, World Green Building Council, 2016-2023.

Six key levers of decarbonization



Source: EY Net Carbon

There are six main operational levers that S-REITs can focus on with regards to decarbonization.

Levers 1 and 3	Energy efficiency improvement initiatives
	Green building roadmap
	Internal carbon pricing
Lever 2	Renegotiation of electricity contracts and increased renewable energy adoption
Lever 4	Value chain management and green procurement
Lever 5	Waste management policies, including recycling efforts and e-waste collection
Lever 6	Using sustainability as competitive advantage

- **Levers 1 and 3:** Levers 1 and 3 can typically be operationalized together, as the improvement in carbon intensity goes hand-in-hand with product transformation. Several initiatives can be introduced and implemented to enhance carbon intensity, including energy efficiency improvement initiatives, green building roadmaps, and having an internal carbon price. While the development of an internal carbon price is still emerging practice amongst S-REITs, it can be extremely useful for decision-making processes.

  For example, CapitaLand Investment Limited (CLI) has factored climate-related costs and opportunities into its evaluation of new investments or capital expenditure through the incorporation of an internal carbon price implemented in 2021. The internal carbon price is embedded within its mandatory Environment Health and Safety Impact Assessment (EHSIA) that is carried out during the feasibility study of CLI's investment in operational assets or development projects as part of its due diligence on pre-purchase, acquisition and investment of new properties. The significant findings of the EHSIA and cost implications are incorporated in the investment paper submitted to the CLI group investment management committee or board for approval.

- **Lever 2:** S-REITs can also consider the adoption of renewable energy sources to reduce or offset the amount of electricity that they are utilizing from the electrical grid. For example, AIMS APAC REIT (AA REIT) has a partnership in place with SP Group to install rooftop solar photovoltaic (PV) systems across six of AA REIT's industrial, logistics and warehouse properties in Singapore. Once completed, the 10.8 MWp combined solar PV system is expected to generate over 14,500 MWh of energy annually. AA REIT will receive renewable energy certificates (RECs) associated with the solar energy generated and use them to offset carbon emissions.

- **Lever 4:** S-REITs should consider integrating sustainability throughout their entire value chain. Green procurement is a key lever to ensure that sustainable practices are adhered to when sourcing materials and services. Integrating green procurement policies can enhance the environmental performance of S-REITs' properties and promote resource efficiency. Examples include using sustainable building materials, purchasing energy-efficient equipment and appliances for buildings, and more.

  ESR-LOGOS REIT has developed the Green Procurement Policy since 2021, whereby they target to obtain 100% supplier compliance by 2030. Their policy gives preference to suppliers with ESG-specific attributes, for example, those who use reusable packaging materials, use products with international or local environmental product standards, adopt management practices aligned with established sustainability standards such as the Green Mark program and relevant green building certification requirements, and more. Further, S-REITs can strengthen the promotion of sustainable behaviors and practices by engaging with tenants to participate in reducing energy consumption, waste, generation and overall environmental impact. By doing so, S-REITs can create a comprehensive and effective decarbonization approach.

- **Lever 5:** Circular economy practices, including waste management policies and practices, are also key to achieving decarbonization by promoting resource efficiency and encouraging the reuse and recycling of materials. Lendlease Global Commercial REIT approaches the topic of waste management holistically, with various stakeholders. It monitors, tracks and sets recycling rates, promotes waste reduction initiatives among tenants and shoppers, and explores initiatives to further the circular economy, including the introduction of a food waste digestor. Among other initiatives, the property also collaborated with the National Environment Agency in an annual campaign – Say Yes to Waste Less – to motivate and inspire shoppers to reduce the use of disposable bags by bringing their own bags.

- **Lever 6:** Finally, more and more S-REITs are leveraging sustainability as a key competitive advantage in their business model.

Cromwell European REIT: Stakeholder engagement and buy-in is essential for sustainability transformation

Cromwell European REIT (CEREIT) highlighted that building the business case for sustainability to ensure a clear strategy from the get-go and ultimately obtaining the buy-in from stakeholders have been key to their sustainability journey. To successfully formulate and execute a net zero strategy, stakeholder engagement must be prioritized.

Through robust discussions with investors, CEREIT understands the importance of incorporating key sustainability criteria and initiatives into the REIT's strategy, including understanding the role ratings such as MSCI and GRESB play in the investor decision-making process. With this clarity, CEREIT is able to focus on key areas for improvement. This addresses concerns about striking a balance between financial returns and achieving sustainability targets, which is often felt industry-wide.

With tenants, the REIT recognizes its important role in data collection as accounting for Scope 3 data involves the engagement and commitment of tenants to provide their emissions data. Beyond environmental performance, CEREIT has observed an encouraging trend of interest among tenants to sponsor their own corporate social responsibility commitments, as well as being active participants in wellness programs

Other key groups of stakeholders that will facilitate the transition to net zero include the entire ecosystem of architects, construction companies and suppliers that will have to be engaged to ensure that their designs and practices factor in climate considerations and the customer's net-zero targets. The REIT's employees must also be engaged and committed to the decarbonization journey for the transition to be successful. In line with this, CEREIT believes in investing in training and upskilling for employees. To get management on board, CEREIT was also one of the first REITs to directly link executive compensation to ESG-related KPIs.

5

Future directions

Advancing the sustainability journey of REITs

This report reveals that S-REITs have made great progress in climate disclosures since the SGX announced mandatory climate-related reporting for FY 2022 onwards, with some areas for improvement in climate risk management and disclosures.

1

Need for a holistic approach

Climate risk disclosures cannot be treated as a standalone activity. Instead, they need to be integrated into the overall risk management and strategic planning processes of the S-REIT. As noted in this report, while many S-REITs have identified climate-related risks, just a few have disclosed how the risks will impact their investment decisions or budget planning. A holistic approach ensures that climate-related risks and opportunities are considered in all aspects of the S-REIT's operations. As earlier illustrated in the CLI example, climate-related risks should be integrated across the whole lifecycle of property investment from acquisition, development, conversion to divestment.

2

Collaboration with investors, regulators, tenants, employees and suppliers

Engaging with key stakeholders is crucial for effective climate risk management and, in turn, disclosures. It also leads to an alignment of expectations, which is important.

Particularly as S-REITs begin to explore net-zero implementation plans, tenants, employees and suppliers are key stakeholders to engage and align with. Typically, a big portion of Scope 3 emissions for REITs stems from tenant consumption and procured goods and services. Thus, it is vital to actively engage such stakeholders while being mindful of their business needs and operational challenges. Similarly, S-REITs should consider manpower demand, capability gap and supply chain readiness while planning for their sustainability commitments.

S-REITs could also look to regulators for assistance where available. Various initiatives have been introduced in Singapore to support energy efficiency upgrades. For example, the BCA has a Green Mark Incentive Scheme for certain existing buildings (GMIS–EB 2.0), whereby it offers cash incentives to help lower upfront costs of energy efficiency retrofits for building owners who achieve higher energy performance standards for their buildings.[20]

An active engagement strategy allows S-REITs to leverage relationships with their stakeholders to develop innovative and competitively advantageous solutions. For instance, FCT participated in Singapore's first brownfield district cooling system at Tampines (the Tampines Central District Distributed Cooling) in 2022, designating two retail malls as injection nodes of chilled water to the network. The network is expected to achieve an 18% decrease in carbon emissions and S$4.3 million in annualized monetary benefits from energy savings, maintenance costs and potential building earnings. By adopting such strategies, S-REITs can enhance their properties' sustainability performance and differentiate themselves in the market.

3

Leveraging technology

Technology can play a crucial role in facilitating effective climate risk disclosures, ushering in a new era of data-driven sustainability practices. For example, data analytics and artificial intelligence (AI) can be used to gather and analyze large volumes of data related to climate risks, enabling more accurate and detailed disclosures. Keppel REIT conducts energy data analysis via an Internet of Things platform to improve energy efficiency and productivity, as well as adopt a data-driven maintenance strategy. These cutting-edge tools empower REITs to gather, process and analyze vast amounts of climate-related data from diverse sources, including weather patterns, historical climate data, emission records, and industry-specific risk assessments.

4

Beyond environment

While social and governance factors may not yet be on the regulatory horizon for S-REITs compared to current environmental urgencies, these should not be overlooked. Elsewhere in the world, primarily in North America, Europe, and Australia, the focus on sustainable and transparent supply chains and human rights considerations is garnering attention in the REIT industry.

REIT supply chains are often complex, involving stakeholders from suppliers and manufacturers to distributors and retailers. There are growing investor and tenant expectations globally to account for sustainable practices throughout REITs' supply chains, including human rights practices. Supply chain emissions will also grow as a concern as S-REITs mature in their TCFD disclosure recommendations. S-REITs can consider implementing a supplier code of conduct or a sustainable procurement policy as a first step toward supply chain management.

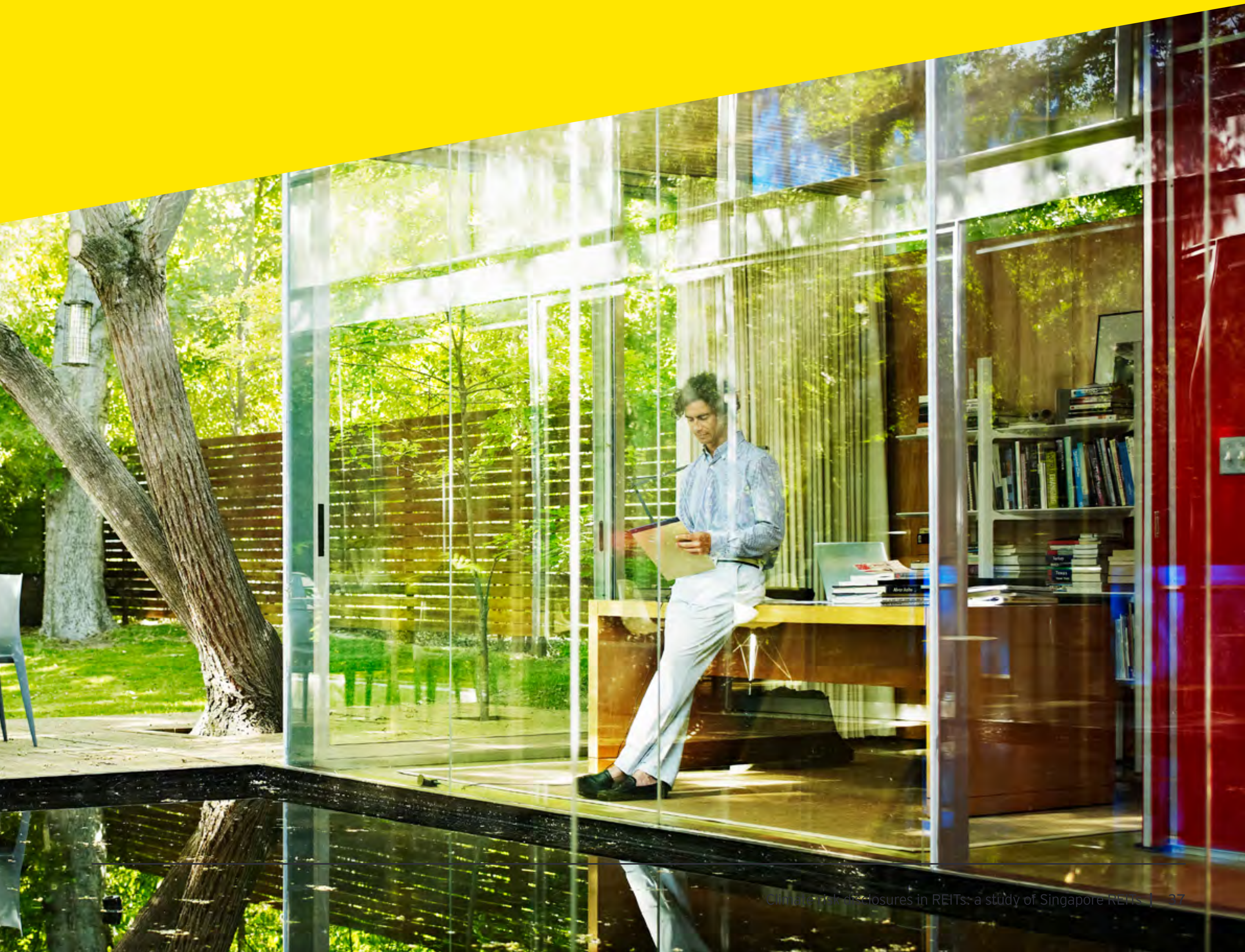
21. "Green Mark Incentive Scheme for Existing Buildings 2.0 (GMIS-EB 2.0)", *Green Mark Incentive Schemes*, 30 June 2022, Building and Construction Authority, 2023.

Conclusion

Overall, it takes a village to implement climate-related disclosures and make the net-zero transition. Reaching the targets and benchmark levels observed in this study is all the more challenging given the vast geographies and on-the-ground infrastructure across collective S-REITs portfolios.

Yet, the sustainability journeys of S-REITs have also encouraged many tenants, employees and communities to look inward and adapt their practices. Thus far, S-REITs have demonstrated promising progress in establishing robust climate strategies and risk management measures, as well as ambitious target setting toward decarbonization and net-zero. As S-REITs invest in more countries outside of Singapore, they may effectively export and steward sustainability practices to the rest of the industry.

EY, as a trusted advisor to REITs, is committed to helping REITs progress toward their net-zero ambitions. As an industry association dedicated to advancing the growth and improvement of REITs, REITAS is also committed to facilitating focused engagement with regulators, policymakers and other stakeholders, advocating for policies and regulations aligned with the above future directions to support the sustainability journeys of REITs, and working together toward a more sustainable REIT industry.



About this research

This report has scoped the TCFD disclosures of all traded S-REIT companies. A total of 40 S-REITs have been identified, according to the market capitalization data as at end-February 2023 from the SGX S-REIT March 2023 chartbook. The list of S-REITs and their industry classifications can be found in the Appendix at the end of this report.

To analyze the climate-related disclosures of the S-REITs, the research referred to the methodology of *2022 EY Global Climate Risk Barometer*. A high-level overview of the scoring methodology is shown below, extracted from the report.

Scoring

Companies were scored on two different metrics: the coverage and quality of disclosures.

Coverage	Quality
S-REITs were assigned a score (in percentage) based on the number of TCFD recommendations addressed by them. A score of 100% indicates that the S-REIT has disclosed some level of information compliant to each of the recommendations, regardless of the quality of the information provided.	S-REITs were given a score (from 0 to 5) based on the level of quality of the TCFD disclosure, expressed as a percentage of the maximum score (55), should the S-REIT implement all 11 recommendations. A score of 100% indicates that the S-REIT has adopted all the recommendations and the quality of the disclosures met all the requirements of the TCFD (i.e., gaining a maximum score of 5 for each of the 11 recommendations). The quality of the disclosures was scored using the following scoring system: **0** – Not publicly disclosed **1** – Limited discussion of the aspect (or only partially discussed) **2** – General discussion or disclosure of the aspect **3** – Detailed discussion or disclosure of the aspect **4** – Well-developed disclosure of the aspect **5** – Market-leading disclosure of the aspect; addressed all features of the aspect in disclosure

Using the scoring methodology above, the research benchmarked the state of climate-related disclosures of the respective S-REITs according to their coverage and quality of TCFD disclosures against the global average of the real estate sector in the *2022 EY Global Climate Risk Barometer*, and a breakdown of the coverage and quality of TCFD disclosures by S-REIT asset class. S-REITs are classified as office, retail, industrial, health care, hospitality, data centers and diversified. The classification of S-REITs can be found in the Appendix at the end of this report.

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REITAS

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Appendix

No.	REIT	Industry classification
1	AIMS APAC REIT	Industrial
2	ARA US Hospitality Trust	Hospitality
3	BHG Retail REIT	Retail
4	CapitaLand Ascendas REIT	Industrial
5	CapitaLand Ascott Trust	Hospitality
6	Capitaland China Trust	Diversified
7	CapitaLand India Trust	Diversified
8	Capitaland Integrated Commercial Trust	Diversified
9	CDL Hospitality Trust	Hospitality
10	Cromwell European REIT	Diversified
11	Daiwa House Logistics Trust	Industrial
12	Dasin Retail Trust	Retail
13	Digital Core REIT	Data center
14	EC World REIT	Industrial
15	Elite Commercial REIT	Office
16	ESR-LOGOS REIT	Industrial
17	Far East Hospitality Trust	Hospitality
18	First REIT	Health care
19	Frasers Centrepoint Trust	Retail
20	Frasers Hospitality Trust	Hospitality
21	Frasers Logistics and Commercial Trust	Diversified
22	IREIT Global	Office
23	Keppel DC REIT	Data center
24	Keppel Pacific Oak US REIT	Office
25	Keppel REIT	Office
26	Lendlease Global Commercial REIT	Diversified
27	Lippo Malls Indonesia Retail Trust	Retail
28	Manulife US REIT	Office
29	Mapletree Industrial Trust	Industrial
30	Mapletree Logistics Trust	Industrial
31	Mapletree Pan Asia Commercial Trust	Diversified
32	OUE Commercial REIT	Diversified
33	Paragon REIT	Retail
34	Parkway Life REIT	Health care
35	Prime US REIT	Office
36	Sabana Industrial REIT	Industrial
37	Sasseur REIT	Retail
38	Starhill Global REIT	Retail
39	Suntec REIT	Diversified
40	United Hampshire US REIT	Retail

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About REITAS – REIT Association of Singapore

REITAS is the representative voice of the Singapore REIT (S-REIT) sector. It provides its members a representation and engagement in consultation opportunities with policy makers on issues affecting S-REITs. The association also organises talks, courses, investor conferences, retail education events etc to promote understanding and investment in Singapore REITs.