

S-REITs: Climate Disclosures and Inclusion in ESG-Related Equity Indexes





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By Kyle Rudden | 08 Apr 2024

EXECUTIVE SUMMARY

- New SGX climate-related disclosure requirements based on ISSB's standards are more stringent than current requirements, most notably regarding *mandatory* Scope 3 emissions reporting.
- The implications for S-REITs are significant. Real Estate is one of the most emissions-intensive sectors, and Scope 3 emissions comprise 85-95% of total emissions for real estate companies.
- Motivated by a strong "business case" for best-in-class climate performance and transparency, many S-REITs are ahead of the curve, evidenced by prominence in climate-related indexes.

DETAIL

Introduction and Background

Singapore Real Estate Investment Trusts (S-REITs) are constituents in ESG-related equity indexes tracked by exchange-traded funds (ETFs) with US\$68.8 billion in assets under management (AUM). The three largest S-REIT constituents by indexed assets – [Capitaland Integrated Commercial Trust \(CICT SP\)](#), [CapitaLand Ascendas REIT \(CLAR SP\)](#), and [Mapletree Logistics Trust \(MLT SP\)](#) – are the three largest S-REITs by market capitalisation.

Whilst size affects *absolute* totals (e.g., indexed assets), climate-related disclosures seem to impact (at least, are correlated with) *relative* differences, particularly for climate-related indexes (a subset of the broader ESG-related universe). S-REITs with "best-in-class" climate disclosures are included in more indexes, with higher average weightings, and more indexed AUM. This is *highly* relevant in the current negative environment for generalist ESG funds. Consider the following points:

- Climate-related funds have: 1) posted net-positive fund flows (versus net-negative for general ESG), 2) dominated ESG-related ETF launches (90% by assets), and 3) were a "rounding error" regarding ESG-related ETF closures in 2023 (two of 27 ETFs and just 1.3% of assets).
- Climate-related ETFs tracking indexes that include S-REITs with the best (i.e., top one-third) climate disclosures posted 2023 net inflows 10.0x greater than other ETFs and have combined index-linked assets of US\$149.7 million compared to just US\$21.0 for all other funds.
- Where indexes that include more best-in-class (*vis-à-vis* climate-related disclosures) S-REITs, REITs (S-REITs) account for much higher percentages – 2.1x on average – of the index's total Singapore country allocation (including all sectors and industries).

ETFs are ETFs, and the absolute numbers are so small that index constituency will *rarely* translate into higher valuations or greater access to capital, etc. However, index constituency (and relative weightings) is a strong barometer of things that will. It is a testament to the general importance of best-in-class climate disclosures, and the quality of specific issuers' climate disclosures.

This report analyses the intersection – and possibly *interconnection* – of S-REITs' climate-related disclosures (i.e., the quality thereof) and the inclusion and relative weightings of S-REITs in ESG-related equity indexes, with emphasis on climate-related indexes (a specific subset of the broader ESG-related index ecosystem). This analysis is primarily inspired by three interrelated things:

1. Climate-related reporting requirements in Singapore are undergoing a major overhaul in order to integrate new [International Sustainability Standards Board](#) (ISSB) disclosure standards.
2. New disclosure requirements could have significant implications for the Real Estate sector as a whole, and S-REITs in particular regarding new Scope 3 emissions reporting requirements.
3. Requirements aside, there is a strong and growing "investment case" for best-in-class climate-related disclosures. Climate risk management, investor confidence, access to capital, etc.

Climate-Related Reporting Requirements in Singapore

Climate-related reporting requirements are hardly new for SGX-listed issuers, but the specifics are undergoing a major overhaul. In short: 1) Singapore Exchange currently mandates climate-related disclosures based on the [Task Force on Climate-Related Financial Disclosures](#) (TCFD) framework, but 2) SGX and other authorities have amended requirements to reflect the new ISSB standards.

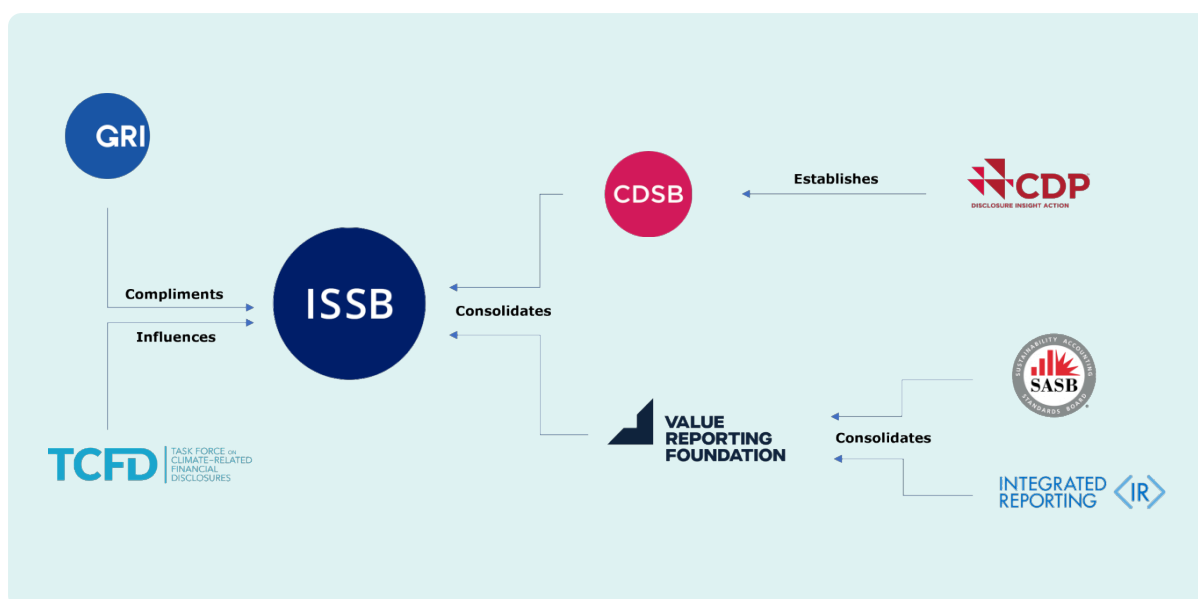
TCFD Framework Climate-related disclosures aligned with the TCFD framework and [guidelines](#) have been mandated for all issuers on a "comply-or-explain basis" (starting in 2022), and for issuers in carbon-intensive industries on a mandatory basis (beginning in 2023 but phased in through 2024). Carbon-intensive industries are: financial, agriculture, energy, food, and forest products. Since REITs are categorised as "financial" by TCFD, S-REITs are already subject to *mandatory* (as opposed to more light-handed comply-or-explain) TCFD-aligned climate-related disclosure requirements.

ISSB Standards In June 2023, ISSB (an independent sustainability standards-setting body of the [IFRS Foundation](#)) [announced](#) the inaugural versions of two interrelated standards collectively referred to as the IFRS Sustainability Disclosure Standard. The two standards are: 1) [IFRS S1](#) (aka "General Requirements for Disclosure of Sustainability-Related Financial Information"), and 2) [IFRS S2](#) ("Climate-Related Disclosures"). IFRS S2 fully incorporates TCFD guidelines and TCFD has disbanded with ISSB/IFRS taking over responsibilities previously under TCFD's purview as of 2024 (see box below).

SGX Requirements In July of 2023, Singapore's [Accounting and Corporate Regulatory Authority](#) (ACRA) and [Singapore Exchange Regulation](#) (SGX RegCo) – via their jointly established [Sustainability Reporting Advisory Committee](#) (SRAC) – published a consultation paper titled ([Turning Climate Ambition into Action in Singapore](#)) proposing new mandatory climate disclosures, in line with the new ISSB standards. In February 2024, after a [public consultation](#) and feedback, SGX [announced](#) details regarding new mandatory climate-related disclosures, effective in 2025.

THE CONSOLIDATION OF STANDARDS In July 2023, ISSB/IFRS [announced](#) it will take over responsibilities previously under TCFD's purview, then in October 2023, TCFD announced its disbanding. These represent significant milestones in the consolidation of ESG/climate reporting frameworks and standards-setting organisations, and effectively cement the IFRS Standards as *the* global standards for climate and general sustainability-related reporting. Notable milestones in this consolidation:

- **June 2021:** The International Integrated Reporting Council (IIRC) and the Sustainability Accounting Standards Board (SASB) merge into the Value Reporting Foundation (VRF).
- **January 2022:** The Climate Disclosure Standards Board (CDSB) is fully consolidated into IFRS Foundation. CDSB was created in 2007 by the Carbon Disclosure Project (CDP).
- **August 2022:** The Value Reporting Foundation (VRF) is fully consolidated into the IFRS Foundation. As stated above, VRF was created via the merger of the IIRC and SASB.
- **October 2023:** With the publication of its [2023 Status Report](#), TCFD states it "*fulfilled its remit and disbanded*" and that IFRS Foundation is taking over TCFD responsibilities.
- **January 2024:** IFRS Foundation assumes responsibilities from TCFD, leaving the Global Reporting Initiative (GRI) as the last remaining global standards organisation.



New Disclosure Standards Have Implications for S-REITs

As stated earlier, S-REITs are already under mandatory TCFD-aligned climate reporting, and most have a head-start on the more stringent IFRS S2 standards. Whilst there is room for improvement, climate-related disclosures by S-REITs have improved in recent years, as is evidenced in the recent study by [Ernst & Young](#) and the [REIT Association of Singapore \(REITAS\)](#), [Climate Risk Disclosures in Real Estate Investment Trusts \(REITs\): A study of Singapore REITs](#). A few findings include:

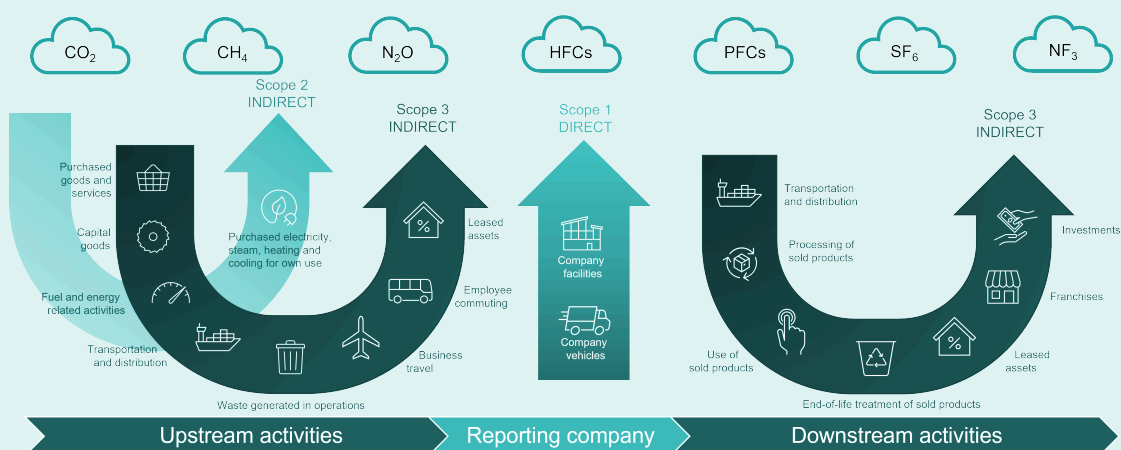
- S-REITs performed better than global peers, particularly re: coverage of Governance elements, one of TCFD's core elements (Governance, Strategy, Risk Management, Metrics and Targets).
- S-REITs' TCFD-aligned disclosures cover 91% (breadth of coverage) of TCFD recommendations, but the report notes that there is room for improvement re: *quality* (depth of disclosures).
- S-REITs highlighted as exemplary "case studies" include [CapitaLand Ascendas REIT \(CLAR SP\)](#), [Keppel REIT \(KREIT SP\)](#), [Lendlease REIT \(LREIT SP\)](#), and [Frasers Centrepoint Trust \(FCT SP\)](#).

The new SGX RegCo disclosure rules require sustainability-related reporting based on IFRS S1 and climate-related disclosures based on IFRS S2 starting in 2025. Regarding climate disclosures, IFRS S2 fully integrates the TCFD guidelines but with *additional* requirements in two key areas: 1) there is a greater emphasis on materiality, requiring that all material sustainability-related information is disclosed, and 2) Scope 3 emissions reporting is now *mandatory* under the IFRS 2 standard.

GREENHOUSE GAS EMISSIONS SCOPES Greenhouse gas (GHG) emissions – including, but not limited to, carbon dioxide (CO₂) – are categorised into three groups (or "scopes"), as defined by the [Greenhouse Gas Protocol](#) in its [Corporate Accounting and Reporting Standard](#). The following is highly summarised:

- **Scope 1:** *Direct* emissions from sources owned and/or controlled by the reporting entity (e.g., fuel consumption by fleet vehicles, manufacturing processes, or fugitive emissions such as hydrofluorocarbons from air conditioning or methane from transportation).

- **Scope 2:** Indirect upstream emissions related to purchased electricity that is consumed by equipment or operations that are owned/controlled by the reporting entity. For most companies, purchased electricity is one of the largest sources of GHG emissions.
- **Scope 3:** All other indirect emissions. Scope 3 emissions ("**Value Chain Emissions**") come from sources not owned or controlled by the company, account for the majority of total emissions for most companies, and are a significant source of climate transition risk.



Scope 3 Emissions Categories and Real Estate Whereas TCFD recommended Scope 3 disclosures "if appropriate," IFRS S2 – and the upcoming SGX requirements – mandate Scope 3 emissions reporting including a breakdown by Scope 3 categories, most notably certain downstream "value-chain" Scope 3 emissions categories (see below). This has major implications – risks and opportunities – for S-REITs, for two interrelated reasons:

- Real Estate (i.e., buildings) accounts for 37% (13.6 GtCO₂) of worldwide energy- and process-related emissions. Of total, about 73% (9.9 GtCO₂) is from building operations (e.g., heating, air conditioning) and 27% (3.7 GtCO₂) is from construction and materials. See references.
- For Real Estate companies, Scope 3 emissions account for 95% of total emissions (i.e., Scopes 1+2+3), on average globally. Moreover, 25% of Scope 3 emissions are attributable to a specific Scope 3 emissions category – [Category 13: Downstream Leased Assets](#). See references.

Scope 3 Category 13 emissions are from assets owned by the reporting company (acting as lessor), and leased to others. For most REITs, Category 13 is most relevant. However, for REITs that do not directly own property, Scope 3 [Category 15: Investments](#) may be more relevant. According to CDP, Category 15 is relevant to just 6% of companies, and comprised less than 1% of emissions.

For references re: building emissions, see the United Nations Environment Programme's (UNEP) [Global Status Report for Building and Construction](#) and the related report [Beyond Foundations: Emissions from the Buildings Sector](#). For references re: Scope 3 emissions, see [Carbon Emissions Data for Investors \(Sustainalytics\)](#) and [Relevance of Scope 3 Categories by Sector \(CDP\)](#).

The Investment Case for Climate-Related Disclosures

The word "requirements" (as in "climate-related disclosure *requirements*") might instinctively have negative connotations, and SGX ListCos will undoubtedly face some challenges in transitioning to new IFRS/ISSB-based reporting requirements. However, regardless of any reporting requirements, best-in-class climate-related reporting is good practice. The "investment case" for climate-related disclosures is extensive, but a few more noteworthy aspects include:

- **Climate Management:** The climate reporting *process* itself can help issuers gain a better grasp of their climate-related risks and opportunities and hone their climate risk management and planning practices "ahead of the curve," before it is too late.
- **Investor Confidence:** Improved climate risk awareness, management, and transition planning – at least greater transparency – will likely instill greater confidence in shareholders, creditors, financial regulators, and other capital markets stakeholders.
- **Access to Financing:** More assured capital markets could lead to lower average costs of capital and greater access to financing, including sources predicated on best-in-class climate reporting such as green bond issues and sustainability-linked loans.

Therein lies the relevance of S-REIT inclusion in climate-related indexes and index-tracking ETFs. As stated earlier, absolute numbers (e.g., index-linked AUN) are small, and index constituency *per se* is unlikely to have any direct effects on valuations, cost of capital, etc. However, index inclusion (and relative weightings) is a strong barometer of things that will. The investment case.

Methodology

This section provides a brief description of methods and data used throughout this analysis, in two subsections: 1) definition of the ESG-related equity index universe and an explanation of how that universe was derived (rationale and process for including or excluding indexes), and 2) a summary (details follow later) of how S-REITs were assessed and rated vis-à-vis "quality" of climate-related disclosures. A few additional methodological caveats worth noting:

- **Tracking ETFs:** In addition to aforementioned criteria, indexes must be tracked by an ETF. In other words, there must be at least *some* index-linked AUM to be included (that is the ultimate endorsement of constituents). That said, there are prominent indexes not currently tracked by ETFs that include S-REITs (e.g., the Solactive CarbonCare Asia Pacific Green REIT Index).
- **Data Sources:** Constituents and weighting are based on data provided by the index providers. In a few cases where such data is not readily available (rare and mostly small indexes by niche providers), ETF holdings are used as a proxy, but only if: 1) there is a large/liquid ETF tracking that index, and 2) that ETF has a direct (physical) replication model, with full replication.
- **Linked Assets:** Summary statistics for the universe (immediately below) refer to *total* assets of tracking ETFs. However, in later sections, references to index-linked assets refer to assets held in equities, not total fund assets. This has little effect, because all ETFs in this analysis are, on average, 99.6% invested in equities (0.4% in cash and other).

OTHER GREEN REIT/REAL ESTATE INDEXESAs stated, indexes included in this analysis are limited to those currently tracked by an ETF, for two main reasons: 1) this analysis often references index-linked assets, and 2) there are very few ESG-related indexed mutual funds (and even fewer REIT-relevant thematic funds). Notwithstanding, there are two important points worth mentioning:

- S-REITs are constituents in several thematic indexes not *currently* tracked by an ETF. All it would take is one ETF launch by [BlackRock \(BLK US\)](#), or a similarly large ETF manager, to dramatically alter the landscape... and quite likely the results of this analysis.
- Several of the indexes alluded to above are currently tracked by investment funds (other than ETFs), including exchange-traded products (ETPs), such as open-end mutual funds or equivalents. For these funds, the numbers (e.g., indexed AUM) are *much* larger.

Potential of Indexes Not Currently Tracked by an ETFS-REITs are constituents in several thematic (Green REIT/Real Estate) indexes by prominent index providers FTSE Russell, Solactive, and Global Property Research. Though not *currently* tracked by any ETFs, they are nonetheless important, and for two primary reasons:

1. These indexes could easily support US\$1.5-2.0 billion in new ETF assets, and US\$50-100 million in S-REIT holdings. That is based on conservative assumptions for ETF launches (one per index) and launch sizes. S-REIT values are based on actual index weightings.
2. Regardless of future potential, these indexes *currently* offer a lot vis-à-vis informational value. Constituency is an endorsement by leading index providers (FTSE, Solactive, and GPR), and indexes incorporate third-party real estate expertise (e.g., [GRESB](#), [Nareit](#)).

The top three S-REITs (by total weighting) in these indexes account for 60.0% of all S-REITs (by weighting): 1) [Capitaland Integrated Commercial Trust \(CICT SP\)](#), 28.6%; 2) [CapitaLand Ascendas \(CLAR SP\)](#), 18.3%; and 3) [Mapletree Pan Asia Commercial Trust \(MCT SP\)](#), 13.1%. The 40% balance is comprised of 23 other S-REITs, but the five largest (of those 23) account for 60% of the balance, and the ten largest account for over 90% of the balance.

Index	S-REITs	Other REITs	Total*	Market Cap**
FTSE EPRA Nareit Developed Green Low Carbon Target Index	23	288	356	1,592,840
Global Property Research Asia Pacific Top 30 ESG Index	6	22	30	241,625
Solactive Developed Real Estate ESG Climate Index	19	174	267	1,862,851
Solactive L&G Green Real Estate Developed Index	18	186	273	1,804,793
Solactive L&G Green Real Estate Paris-Aligned Developed Index	5	169	230	1,706,336
Solactive GPR 250 Developed ESG Index***	12	180	236	1,580,622
Solactive L&G Developed REIT Multi-Factor ESG Index	17	143	160	1,338,079
Solactive CarbonCare Asia Pacific Green REIT Index	10	50	60	183,325

* Total index constituents includes non-REITs (if applicable). ** Market capitalisation (total) of constituents (in USD millions). *** Solactive GPR 250 Developed ESG is based on [GPR 250 Index](#).

Indexes Currently Tracked by Other Investment FundsThree of the indexes in the table above – FTSE EPRA Nareit Developed Green Low Carbon Target Index, Solactive L&G Green Real Estate Developed Index, and Solactive Developed Real Estate ESG Climate Index – are tracked by five funds with a combined US\$11.3 billion in assets. With one exception (a pension fund), all are open-end investment funds.

Together, these funds hold 26 S-REITs, with a total holdings value of US\$381.1 million. The three largest account for 49.5% (US\$188.5 million), and the ten largest bring the cumulative share to 83.4% (US\$317.8 million). The 16.6% remainder is distributed amongst 16 S-REITs, but it is a highly skewed distribution – the top five comprise 95.1% of the balance.

S-REIT	Weighting*	AUM (\$)*	AUM (%)*	Cumulative*
CapitaLand Integrated Commercial Trust (CICT SP)	0.46%	102,987,672	27.0%	27.0%
CapitaLand Ascendas REIT (CLAR SP)	0.24%	52,361,360	13.7%	40.8%
Mapletree Pan Asia Commercial Trust (MCT SP)	0.15%	33,126,049	8.7%	49.5%
Frasers Centrepoint Trust (FCT SP)	0.13%	29,727,023	7.8%	57.3%
Mapletree Industrial Trust (MINT SP)	0.10%	23,385,955	6.1%	63.4%
Suntec REIT (SUN SP)	0.08%	18,514,216	4.9%	68.2%
Mapletree Logistics Trust (MLT SP)	0.07%	16,142,370	4.2%	72.5%
Frasers Logistics & Commercial Trust (FLT SP)	0.08%	16,130,176	4.2%	76.7%
Keppel REIT (KREIT SP)	0.07%	14,923,885	3.9%	80.6%
Keppel DC REIT (KDCREIT SP)	0.04%	10,467,206	2.7%	83.4%

* Weighting reflects average weighting across all funds.* AUM (\$) reflects total value of all S-REIT holdings (in USD).* AUM (%) and Cumulative (%) are of all 26 S-REITs not top ten.

Index Universe and S-REIT Eligibility

This analysis of S-REITs in ESG-related indexes, and climate-related indexes in particular, calls for an index universe constrained to those in which S-REITs are eligible for – or, more accurately, not *precluded* from – inclusion as index constituents. This 81-index "analytical universe" is a subset of the total ESG index ecosystem (803 indexes), screened based on two broad categories of eligibility-related characteristics (for now, eligibility refers to basic "index fit" as opposed to specific climate/ESG eligibility-exclusion criteria, which are discussed in a later section).

- Geographies/Markets:** Geographic and market scope must not preclude S-REITs. For example, global and certain regional (e.g., Asia-Pacific) indexes are included but irrelevant regional (e.g., Europe) and country indexes are excluded. Indexes must also include developed markets; either developed-only or all-markets, but not exclusively emerging markets.
- Strategies/Thematics:** Included are: 1) general sustainability/ESG indexes, 2) climate/carbon indexes, and 3) certain thematic indexes, mostly real estate-*specific* (e.g., "Green REITs") and a few real estate-*related* (e.g., "Sustainable Cities"). ESG factor indexes (growth, value, yield) are excluded because factor criteria often "dilute" climate criteria, the main focus herein.

Market capitalisation does not affect composition of the index universe, but warrants mentioning here because it is related to eligibility, and for certain S-REITs results in automatic ineligibility. The issue is that many indexes have a "LargeMidCap" focus, and that eliminates smaller S-REITs from eligibility.

Climate-Related Disclosure Assessments

A focus herein is the intersection of S-REIT constituency in climate-related indexes, and S-REITs' climate-related disclosures. Climate-related indexes include: 1) climate and carbon indexes (à la "Paris-Aligned", "Low Carbon"), 2) general ESG/SRI indexes with a climate/carbon bent (à la "ESG Climate", "SRI Low Carbon"), and 3) thematic indexes based on climate/carbon factors (à la "Green REITs"). Climate-related disclosure assessments

- **Utilisation:** Disclosure assessments are used to analyse the relationships between disclosure quality and index inclusion. Bear in mind, relationships do not necessarily mean causality.
- **Simplicity:** S-REITs were assessed on basic criteria related to "quality" of climate disclosures, and classified as "High," "Medium," or "Low" (effectively categorical disclosure "ratings").
- **Methodology:** Criteria were assessed on a "Yes/No" or "High/Medium/Low" basis, and assigned values (e.g., 1/0 or 3/2/1). Values were summed and statistically binned into categories.

Table: Climate-Related Disclosures Assessments (Criteria Summary)

REPORTING & TRANSPARENCY	MANAGEMENT & PLANNING
Emissions Reporting and Accounting	Climate Risk Planning/Management
<i>Emissions-related reporting and accounting, with an emphasis on Scope 3 and itemization of downstream emissions by category.</i>	<i>Climate risk assessment and emissions reduction targets that are aligned with the Paris Agreement's 1.5°C global warming goal.</i>
<ul style="list-style-type: none"> • Whether Scope 2 emissions are reported based on both market-based and location-based accounting, as per the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. • Whether Scope 3 emissions are: 1) disclosed at all, and 2) if yes, whether reported as a single consolidated value, or broken out by Scope 3 emissions categories (see next bullet point). • If Scope 3 is itemized, whether only "minor" upstream categories (e.g., Category 6: Business Travel) or includes major downstream categories (e.g., Category 13: Downstream Leased Assets). 	<ul style="list-style-type: none"> • Does company conduct scenario-based climate risk analysis (of both transition and physical risks)? If so, whether management is transparent regarding methods, metrics, materiality, etc. • Whether risk assessments: 1) address multiple scenarios, and 2) include a 2.0°C or lower global warming scenario. Weighting and scoring favors those that include a 1.5°C scenario. • Independent of risk assessments, whether climate planning and targets (see first below) are aligned with Paris Agreement's 1.5°C goal, and if externally validated (see second below).
Reporting Frameworks and Alignment	Emissions Targets/Net-Zero Objectives
<i>Alignment of climate disclosures with important frameworks like TCFD, GRESB, and the Singapore Exchange Core ESG Metrics.</i>	<i>Existence of emissions reduction targets, and whether absolute or intensity, science-based, reliant on carbon offsets, etc.</i>
<ul style="list-style-type: none"> • TCFD alignment, and if all "core" elements (Governance, Strategy, Risk Management, Metrics/Targets) are addressed. Due to limited variability among S-REITs, this has little effect on relative scores. • Participation in GRESB Public Disclosure and GRESB Real Estate Assessment. GRESB scores <i>per se</i> are not included, but "Five Star" ratings garner a slight increase in scores and weightings. • SGX Core ESG Metrics and GRI (Global Reporting Initiative) are considered on a "Yes or No" basis, and weighted equally. It is too early to consider the new IFRS/ISSB standards. 	<ul style="list-style-type: none"> • Whether management has established and published emissions reduction targets, and whether targets include both intermediate-term (2030 or sooner) and long-term (2050 or sooner) targets. • Targets including <i>both</i> absolute (e.g., tCO₂e) and intensity (e.g., tCO₂e/sqm/m) reductions are weighted most. If one or the other then absolute targets are weighted more than intensity targets. • Various other, mainly whether emissions targets: 1) are reliant on carbon offsetting, and 2) include a "net-zero" goal. If carbon offsetting, score is reduced. If net-zero goal, score is increased.
Third-Party Assurance and Verification	Independent Validation and Attestation
<i>Independent external assurance/verification of climate disclosures, by a reputable third-party provider (e.g., Sustainalytics, ISS, PwC).</i>	<i>Independent external assurance/verification, but here specifically regarding emissions targets, net-zero goals, and 1.5°C alignment.</i>
<ul style="list-style-type: none"> • Whether latest climate-related disclosures are externally assured or verified. If not, whether management has committed to seeking assurance/verification in the next reporting cycle or near future. • If assured, whether: 1) emissions are separate or included under "umbrella" sustainability report assurance, and 2) by a reputable provider (e.g., as defined by the ASEAN Green Bonds Standards). • GRESB Public Disclosure and Real Estate Assessment count as "verification" (GRESB is a reputable provider re: real estate whose assessment process entails verification). 	<ul style="list-style-type: none"> • Targets approved by the Science Based Target Initiative (SBTi) are over-weighted. SBTi targets pending approval are weighted slightly less, but still higher than all non-SBTi targets. • The Carbon Real Estate Risk Monitor (CRREM) does not approve targets but CRREM targets are science-based and thus treated as effectively "validated" (albeit with a lower weighting than SBTi). • "General" assurance providers (see bullets to left) are accepted for emissions targets with stricter emissions-related "reputability" criteria. Representative providers include DNV, ERM, EY, LRQA.

Source: Alppha Research.

S-REIT Index Constituents: Overview of Index Landscape

The 81-index analytical universe, as described earlier, is based on criteria (e.g., geographic scope, sustainability strategy) specifically designed to only include indexes in which S-REITs are eligible for inclusion as index constituents. S-REITs are included as constituents in 79 of those 81 indexes (those 79 indexes account for 89% of the total US\$77.3 billion in index-linked assets). This section presents a high-level overview in two subsections (S-REITs are discussed in greater depth later).

1. **The Global Context:** An overview of all REITs (S-REITs *and* non-Singapore REITs) included as constituents in the index universe. Not a core focus of this report, but relevant background.
2. **S-REITs Overview:** A summary of S-REITs included as constituents in the index universe to be followed up by more specific and detailed analyses throughout the remainder of this report.

For a list of indexes included in this analysis, see "Appendix A: ESG-Related Index Universe."

S-REIT Index Constituents: The Global Context

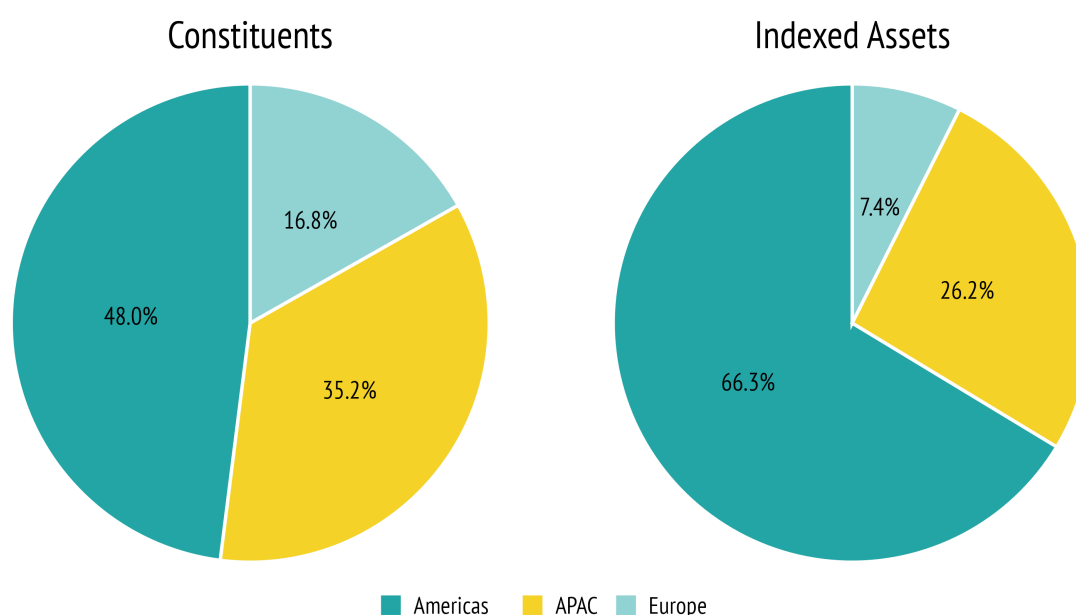
Of the 40 SGX-listed REITs, 30 are constituents in the 79 ESG-related indexes alluded to above. In addition to S-REITs, there are 351 other REITs (domiciled and/or listed in 19 other countries) that are constituents in that 81-index universe. Whilst this report is about *intra*-regional comparisons (S-REITs to other S-REITs) and not *inter*-regional comparisons (S-REITs to non-Singapore REITs), a quick-glance of the wider constituent landscape is worthwhile for basic context.

For the global ESG-related equity index ecosystem as a whole – roughly 1,000 ETFs with US\$433.4 billion in aggregate assets – European REIT constituents account for the majority of index-linked assets, followed by the Americas (almost entirely North America), then Asia-Pacific (90% Asia and 10% Australia/New Zealand). A few related observations:

- **Europe:** In the wider world, European constituents account for well over one-third of AUM, but in this analysis, just 7.4%. There is a simple explanation. Most European REIT constituents and index-linked AUM is concentrated in Europe regional and country-specific indexes, all of which are excluded from this analysis, as was explained earlier.
- **Asia-Pacific:** Similarly, the majority of APAC REITs are constituents in regional indexes versus country indexes (again, country-specific indexes are excluded). More importantly, indexes were chosen specifically for this S-REIT analysis therefore the universe is – by design – APAC-heavy. That explains why APAC accounts for 26% of indexed AUM herein, but only 18% generally.
- **Americas:** The Americas accounts for 66% of indexed AUM in this analysis, much higher than in the broader index ecosystem. This is attributable to a few anomalous constituents. [Prologis \(PLD US\)](#) accounts for 14% of indexed AUM, and the top five – Prologis plus [Crown Castle \(CCI US\)](#), [Welltower \(WELL US\)](#), [Equinix \(EQIX US\)](#), and [Digital Realty Trust \(DLR US\)](#) – total 34%.

Interestingly, S-REITs represent a significantly higher percentage of Singapore country allocations than other REITs. On average, REIT constituents for a given country account for 32% of the index's *total* country allocation (all sectors) for that country. S-REITs on average represent 51% of indexes' total Singapore country allocation.

Chart: Distribution of Global REIT Constituents (by Region)



Sources: Index providers, Morningstar, Trackinsight. Excludes six South African REIT constituents with a combined US\$0.5 million in index-linked AUM (0.02% of the 81-index total).

Table: Top 10 Global REIT Constituents (by Index-Linked AUM)

REIT Constituent	Country	AUM (\$)	AUM (%)	Cumulative (\$)	Cumulative (%)
Prologis (PLD US)	U.S.	383,896,353	14.20%	383,896,353	14.20%
Crown Castle (CCI US)	U.S.	171,634,419	6.30%	555,530,772	20.50%
Welltower (WELL US)	U.S.	161,772,939	6.00%	717,303,711	26.50%
Equinix (EQIX US)	U.S.	116,644,057	4.30%	833,947,768	30.80%
Digital Realty Trust (DLR US)	U.S.	97,804,022	3.60%	931,751,790	34.40%
American Tower (AMT US)	U.S.	87,832,605	3.20%	1,019,584,395	37.60%
Scentre Group (SCG AU)	Australia	84,266,444	3.10%	1,103,850,839	40.70%
Capitaland Integrated Commercial (CICT SP)	Singapore	83,867,428	3.10%	1,187,718,267	43.80%
CapitaLand Ascendas REIT (CLAR SP)	Singapore	71,818,994	2.60%	1,259,537,261	46.50%
Iron Mountain (IRM US)	U.S.	68,190,689	2.50%	1,327,727,950	49.00%

Sources: Index providers, Morningstar, Trackinsight. AUM is in USD.

NON-REIT SINGAPORE CONSTITUENTS It is worth noting that four SGX-listed real estate issuers (non-REITs) are constituents in 68 of the 79 indexes. [CapitaLand Investment \(CLI SP\)](#) and [City Developments \(CIT SP\)](#) account for 91% of AUM; [Hongkong Land \(HKL SP\)](#) and [UOL Group \(UOL SP\)](#) make up the other 9%.

Company	Sector (per SGX)	Indexes	Weighting	Assets (\$)
CapitaLand Investment (CLI SP)	Financial and Insurance Activities	52	0.204%	63,006,708.5
City Developments (CIT SP)	Real Estate Activities	62	0.141%	49,835,122.4
Hongkong Land Holdings (HKL SP)	Real Estate Activities	33	0.089%	5,345,276.5

UOL Group Limited (UOL SP)	Financial and Insurance Activities	40	0.068%	5,310,453.2
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S-REIT Index Constituents: S-REITs Overview

As mentioned, 30 S-REITs are constituents in 79 indexes of the 81-index analytical universe. Two in particular – [Capitaland Integrated Commercial Trust \(CICT SP\)](#) and [CapitaLand Ascendas REIT \(CLAR SP\)](#) – stand out (both are included in the global top ten above). They are constituents in 73 and 59 indexes, respectively, with average weightings of 0.47% and 0.42% (3.9x the 0.11% average for other S-REITs). CICT and CLAR account for 72% (US\$156 million) of all indexed S-REIT AUM.

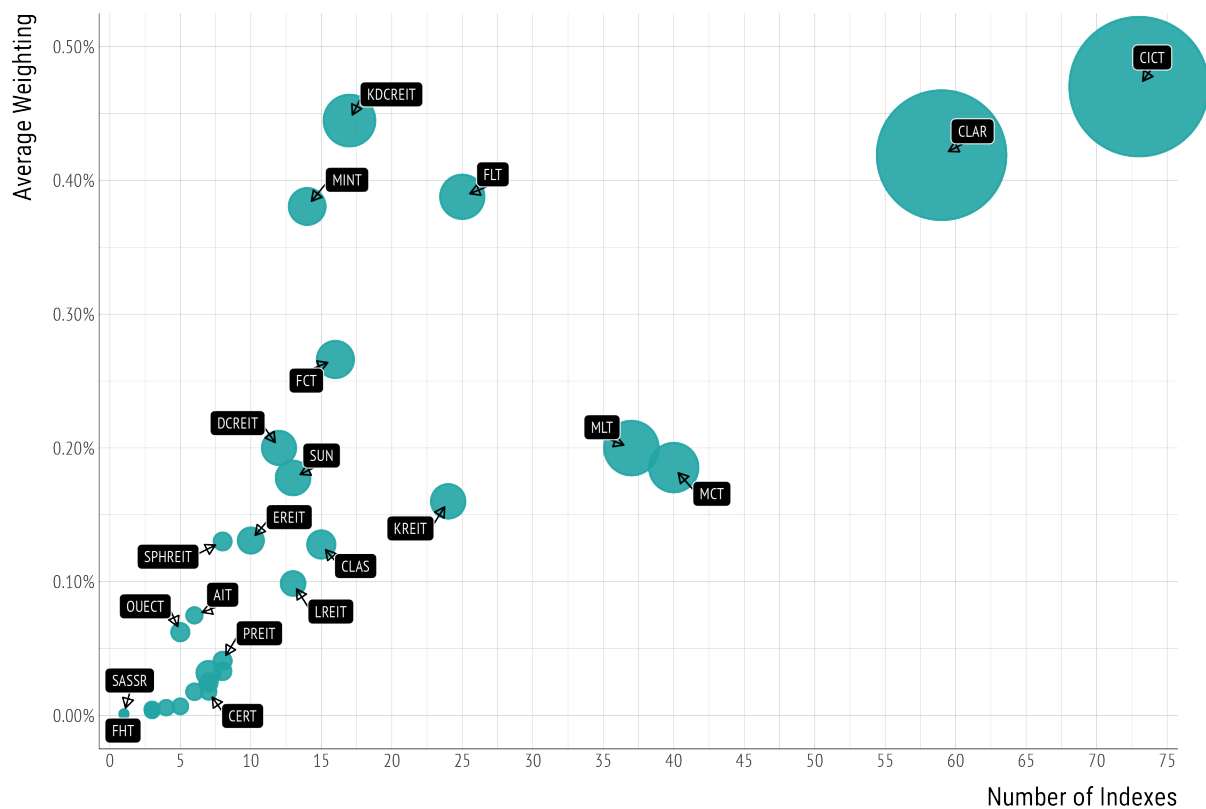
Table: All 30 S-REIT Index Constituents (by Index-Linked AUM)

S-REIT	Segment*	Indexes	Weighting*	Assets*
Capitaland Integrated Commercial Trust (CICT SP)	Diversified	73	0.47%	83,867,428.00
CapitaLand Ascendas REIT (CLAR SP)	Industrial	59	0.42%	71,818,993.60
Mapletree Logistics Trust (MLT SP)	Industrial	37	0.20%	10,200,593.20
Keppel DC REIT (KDCREIT SP)	Data Center	17	0.45%	8,975,592.40
Mapletree Pan Asia Commercial Trust (MCT SP)	Diversified	40	0.19%	8,042,700.50
Frasers Logistics & Commercial Trust (FLT SP)	Diversified	25	0.39%	6,140,369.90
Frasers Centrepoint Trust (FCT SP)	Retail	16	0.27%	3,905,235.00
Mapletree Industrial Trust (MINT SP)	Industrial	14	0.38%	3,809,714.20
Suntec REIT (SUN SP)	Diversified	13	0.18%	3,241,222.80
Keppel REIT (KREIT SP)	Office	24	0.16%	3,179,192.40
Digital Core REIT (DCREIT SP)	Data Center	12	0.20%	3,114,527.10
CapitaLand Ascott Trust (CLAS SP)	Hospitality	15	0.13%	1,820,578.50
ESR-LOGOS REIT (EREIT SP)	Industrial	10	0.13%	1,437,408.10
Lendlease Global Commercial REIT (LREIT SP)	Diversified	13	0.10%	1,205,229.80
Starhill Global REIT (SGREIT SP)	Retail	7	0.03%	1,128,400.30
QUE REIT (QUECT SP)	Diversified	5	0.06%	416,169.80
CDL Hospitality Trusts (CDREIT SP)	Hospitality	7	0.03%	415,029.60
Parkway Life REIT (PREIT SP)	Healthcare	8	0.04%	407,116.60
Paragon REIT (SPHREIT SP)	Retail	8	0.13%	392,828.00
AIMS APAC REIT (AAREIT SP)	Industrial	8	0.03%	366,106.60
Far East Hospitality Trust (FEHT SP)	Hospitality	6	0.02%	279,903.40
CapitaLand India Trust (AIT SP)	Diversified	6	0.08%	261,659.60
Cromwell European REIT (CERT SP)	Diversified	7	0.02%	227,946.70
Keppel Pacific Oak US REIT (KORE SP)	Office	5	0.01%	226,774.10
CapitaLand China Trust (CLCT SP)	Diversified	4	0.01%	206,519.50
First REIT (FIRT SP)	Healthcare	3	0.01%	200,261.90
Manulife US REIT (MUST SP)	Office	3	0.00%	162,013.50
Prime US REIT (PRIME SP)	Office	3	0.00%	69,952.20
Frasers Hospitality Trust (FHT SP)	Hospitality	1	0.00%	1,432.70
Sasseur REIT (SASSR SP)	Retail	1	0.00%	1,431.40

Sources: Index providers, Morningstar, Trackinsight, and Singapore Exchange. * Segment classifications as per SGX Research. Weighting reflects mean weighting across indexes. Assets are in USD.

The chart below is based on data in the previous table, and illustrates the relative distribution of S-REITs and inclusion in ESG-related indexes. The y-axis reflects the mean weighting for each S-REIT and the x-axis reflects the number of indexes in which each S-REIT is included. Circle size is a general indication of total indexed AUM. Note, however, that sizes reflect binned (discrete) asset ranges; a circle twice as large as another indicates approximately twice the AUM, but not precisely.

Chart: Relative Distribution of 30 S-REIT Index Constituents



Sources: Index providers, Morningstar, Trackinsight, Singapore Exchange. Circle size indicates indexed AUM, binned into discrete ranges.

THE MARKET CAPITALISATION ISSUE Many indexes in the analytical universe have explicit market capitalisation constraints that preclude certain S-REITs from eligibility. This affects smaller S-REITs (and other small-cap REITs), as indexes with an explicit LargeMidCap constraint account for 44 of 81 ESG-related indexed and 33 of 59 climate-related indexed – 67.7% and 62.7%, respectively, of assets.

- **All ESG-Related:** For the all-inclusive 81-index ESG-related universe, 19 small S-REITs are precluded from 44 indexes with indexed AUM of US\$52 billion (68% of the total).
- **Climate/Carbon:** For the 59-index climate/carbon-related subset, those 19 S-REITs are precluded from 33 indexes with US\$49 billion in indexed AUM (88% of climate total).

The table below lists 14 S-REITs which are included in indexes (general ESG and/or climate-related) with either a small-cap or SMID-cap focus. Not significant by the numbers, with an average weighting of 0.01% and indexed AUM totalling US\$0.2 million. Nevertheless, still a relevant list vis-à-vis relative constituencies and weighting of smaller S-REITs.

S-REIT	Segment	Weighting	Assets	Market Cap
ESR-LOGOS REIT (EREIT SP)	Industrial	0.029%	64,951.5	1,707,236,000
Cromwell European REIT (CERT SP)	Diversified	0.034%	43,642.8	839,842,000
CapitaLand India Trust (AIT SP)	Diversified	0.016%	35,034.8	1,039,008,000
Lendlease Global Commercial REIT (LREIT SP)	Diversified	0.015%	33,604.1	1,014,845,000
Parkway Life REIT (PREIT SP)	Healthcare	0.004%	5,072.6	1,565,521,000
CapitaLand China Trust (CLCT SP)	Diversified	0.003%	3,603.2	923,973,000
Paragon REIT (SPHREIT SP)	Retail	0.003%	3,432.0	1,752,618,000
CDL Hospitality Trusts (CDREIT SP)	Hospitality	0.003%	3,302.7	931,379,000
AIMS APAC REIT (AAREIT SP)	Industrial	0.002%	2,865.3	771,667,000
Starhill Global REIT (SGREIT SP)	Retail	0.002%	2,698.0	818,367,000
Far East Hospitality Trust (FEHT SP)	Hospitality	0.002%	2,453.3	948,732,000
Digital Core REIT (DCREIT SP)	Data Center	0.002%	2,370.9	781,836,000
Frasers Hospitality Trust (FHT SP)	Hospitality	0.001%	1,432.7	662,154,000
Sasseur REIT (SASSR SP)	Retail	0.001%	1,431.4	630,852,000

Index providers have similar market capitalisation thresholds – i.e., Large-Cap = US\$10 billion-plus), Mid-Cap = US\$2 billion to US\$10 billion), and Small-Cap = less than US\$2 billion. There are several exceptions, however, and for this analysis, three "Small-Cap" indexes with atypically high thresholds are classified as SMID-Cap (Small-Mid).

S-REIT Index Constituents: A Deeper Dive by Index Type

This section delves further into S-REIT index constituents specifically, which is the primary focus of the remainder of this report (save for the occasional reference to other REIT constituents, if and when such references become relevant to the discussion). This section – a contextual background for all upcoming sections – is comprised of three subsections:

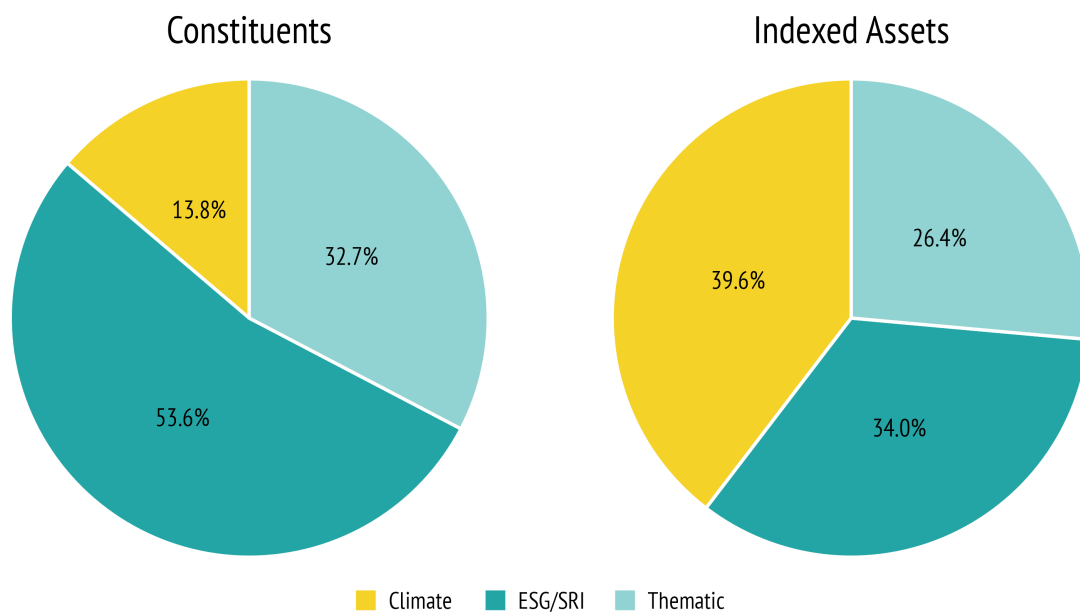
1. **Strategy/Category:** S-REIT constituents by index strategy/category, primarily climate and/or ESG objectives (e.g., "low carbon") versus "traditional" objectives (e.g., growth).
2. **Geographic Scope:** S-REIT constituents by indexes' geographic scope. Global (world), global (EAFE), super-regional (Asia-Pacific), and regional (e.g., Asia, Pacific, Far East).
3. **Climate-Related:** Definition and overview of the focus index universe for upcoming sections regarding S-REIT climate disclosures and constituency in climate-related indexes.

S-REIT Constituents: By Index Strategy/Category

Indexes (and index funds that track them) that include S-REITs among their constituents fall into three broad categories: 1) general ESG/SRI indexes (those that emphasise climate-related metrics more than "traditional" ESG/SRI indexes), 2) climate/carbon-centric indexes (à la "Paris-Aligned", "Climate Action"), and 3) thematic indexes, mainly the Green REIT/Real Estate/Buildings variety, plus a few related to the U.N. [Sustainable Development Goals](#) (SDGs).

- **ESG/SRI:** General ESG/SRI indexes number 45, and account for the slight majority of indexes and S-REIT constituents – 57.0% of indexes and 53.6% of constituents – but only 34.0% of the total indexed ETF assets associated with S-REIT constituents.
- **Climate:** Conversely, the 20 climate/carbon-centric indexes represent just 25.3% of indexes and 13.8% of S-REIT constituents by count, but 39.6% of the total indexed-linked ETF assets associated with those S-REIT index constituents.
- **Thematic:** Fourteen thematic indexes are just 17.7% of indexes by index count, but 32.7% of constituents and 26.4% of indexed assets, in large part because 11 of those indexes (93.8% of thematic AUM) are "Green REIT/Real Estate" indexes.

Chart: S-REIT Index Constituents (by Index Strategy/Category)



Sources: Index providers, Morningstar, Trackinsight. Three real estate-related thematic indexes are SDG-related (e.g., "Sustainable Cities").

S-REIT Constituents: By Geographic Scope/Focus

By geographic scope, global indexes account for 61.3% of index-linked S-REIT holdings, whereas APAC super-regional and regional indexes account for 38.7%. Of the 61.3% represented by global indexes, 98.6% is attributable to "all-world" indexes and 1.4% to EAFE ("Europe, Australasia, and Far East") indexes. The APAC super-regional total (38.7%) is broken down, in descending order of relative index-linked assets, as follows:

- **Pacific:** Pacific regional indexes represent 78.7% of the 38.7% APAC total. Note that all Pacific regional indexes are MSCI indexes, based on MSCI's Pacific region (see the box below).
- **Asia-Pacific:** Asia-Pacific indexes – indexes whose geographic scope covers all APAC regions – represent 17.6% of the 38.7% APAC total (this group plus other APAC regional indexes).
- **Asia/Far East:** Asia and Far East regional indexes together account for 3.7%, with Asia being a 3.1% majority. Far East indexes are based on MSCI's "Far East" region (see box below).
- **Exclusions:** Not a region *per se* but worth noting that most Asia-Pacific indexes exclude Japan (e.g., "Asia ex Japan"). Specifically, 14 of 18 are "ex Japan" and account for 77.8% AUM.

Table: S-REIT Index Constituents (by Index Geographic Scope)

Region	Subregion	Geography	S-REITs	Indexes	Assets (\$)	Assets (%)
APAC	Pacific	Pacific ex Japan	35	8	58,942,788	27.35%
APAC	Asia-Pacific	--	40	2	11,351,403	5.27%
APAC	Pacific	--	5	2	6,690,523	3.10%
APAC	Asia-Pacific	Asia-Pacific ex Japan	9	3	3,324,768	1.54%
APAC	Asia	Asia ex Japan	5	2	2,586,392	1.20%
APAC	Far East	Far East ex Japan	1	1	481,514	0.22%
Total APAC	--	--	95	18	83,377,387	38.69%
World	World	--	303	52	122,652,101	56.91%
World	World	World ex United States	32	3	6,813,671	3.16%
World	EAFE	--	7	3	1,882,703	0.87%
World	World	World ex Australia	11	2	774,164	0.36%
World	World	World ex EMU	2	1	22,305	0.01%
Total World	--	--	355	61	132,144,944	61.31%
TOTAL	--	--	--	79	215,522,331	100.00%

Sources: Index providers, Morningstar, Trackinsight. Assets are in USD.

GEOGRAPHICAL CLASSIFICATION

The following is an overview of geographical classifications. Several (Asia, Pacific, Far East) are specific to MSCI indexes. Regarding generic classifications (i.e., Asia-Pacific and EAFE), most index providers agree on geographic scope (countries), with minor differences in how countries are classified as developed or emerging. Because MSCI indexes comprise the vast majority of indexes herein, this report uses the [MSCI Market Classification](#) system.

ASIA-PACIFIC

- **Asia-Pacific:** The Asia-Pacific super-region includes five developed markets (Australia, Hong Kong, Japan, New Zealand, and Singapore) plus eight emerging markets (China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, and Thailand).
- **Asia:** All Asia indexes are based on MSCI's "Asia" region, which includes three developed markets (Hong Kong, Japan, and Singapore) plus eight emerging markets (China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, and Thailand).
- **Pacific:** Pacific indexes (again, all of which are MSCI indexes) are based MSCI's "Pacific" region, which includes five developed markets – i.e., Australia, Hong Kong, Japan, New Zealand, and Singapore. No emerging markets/countries are included.

- **Far East:** Far East indexes (once again, all MSCI indexes) are based on MSCI's "Far East" region, which includes three developed markets – Hong Kong, Japan, and Singapore. In terms of this analysis, Singapore is the only "Far East" market represented.

WORLD/EAFE

- **World:** "All-world" indexes, by definition, include a number of developed and emerging countries. All-world indexes account for all U.S. and Canadian REIT constituents in the earlier "Global Context" summary, as neither country is included in the EAFE region. In contrast, most European REITs are constituents of EAFE indexes.
- **EAFE:** The EAFE (Europe, Australasia, and Far East) super-region includes 21 developed markets: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Israel, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, Australia, Hong Kong, New Zealand, Japan, and Singapore.

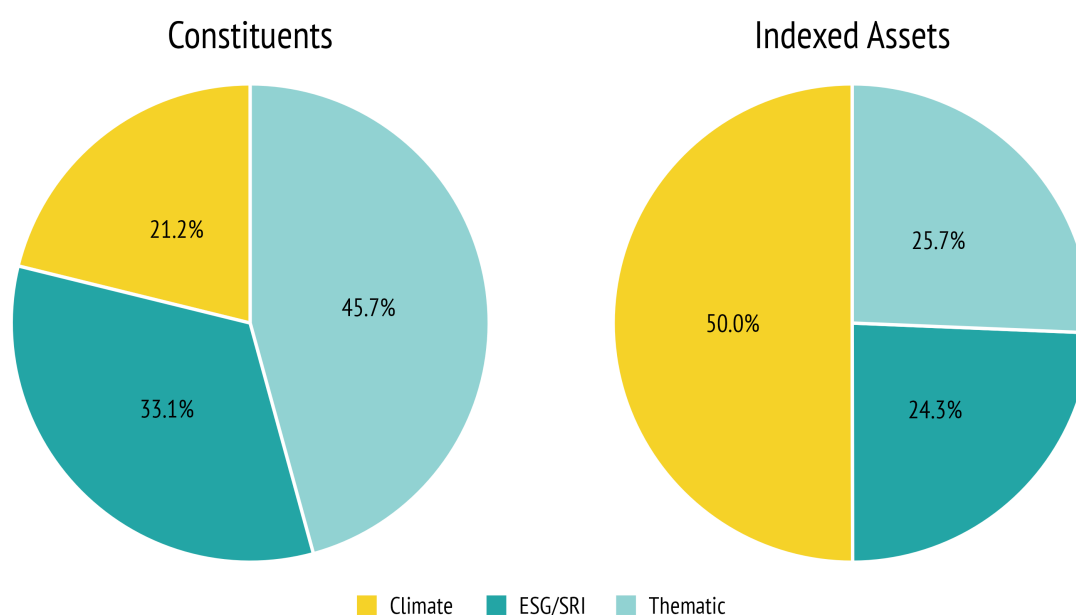
S-REIT Constituents: Climate-Related Indexes

The remainder of this report focuses on the intersection of climate-related disclosures by S-REITs and S-REIT constituency in climate-related indexes. As such, the index universe is subset further, from the initial 81 indexes to 58 climate-related indexes. Climate-related indexes include climate/carbon-centric indexes, plus 26 of the 45 general ESG/SRI that emphasise climate metrics more so than most general ESG/SRI indexes. All but two of 14 thematic indexes are "climate-related."

This is explained more later, but for context, the 26 general ESG/SRI indexes included in the "climate-related" cohort are primarily either: 1) ESG indexes with strong climate overlay, or 2) climate indexes with heavy ESG underlay. These are indexes that include phrases such as "ESG Low Carbon," "ESG Paris-Aligned," "SRI Low Carbon," and "ESG and Climate" in their names.

Despite there being 23 fewer indexes in the climate-related index universe, the number of S-REIT constituents drops by only three. The three S-REITs that are constituents in the all-inclusive (81-index) universe, but *not* constituents in the 58-index climate-related subset are [First REIT \(FIRT SP\)](#), [Prime US REIT \(PRIME SP\)](#), and [Manulife US REIT \(MUST SP\)](#).

Chart: S-REIT Index Constituents (Climate-Related Indexes)



Sources: Index providers, Morningstar, Trackinsight. General ESG/SRI indexes are climate-related if they emphasise climate/carbon metrics.

S-REIT Index Constituents: Climate-Related Disclosures

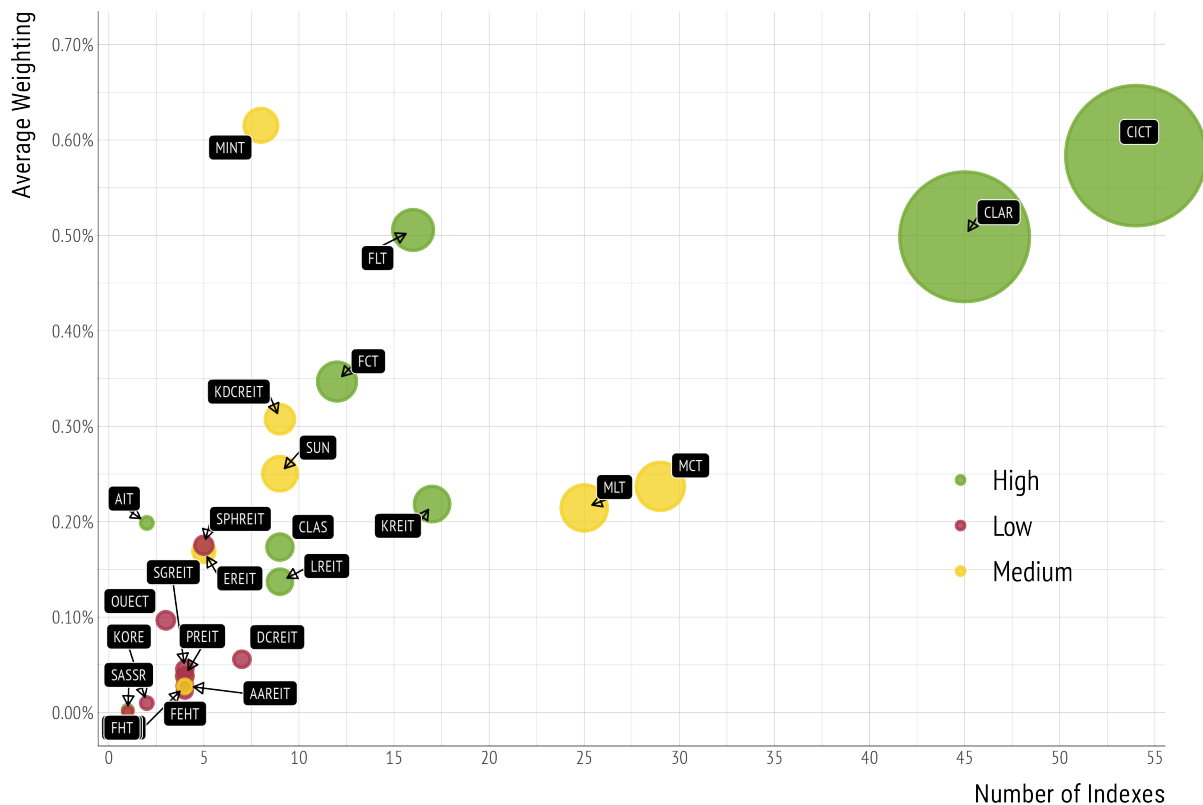
This section, and others that follow, analyses the intersection – and perhaps *interconnection* – of S-REITs' climate-related disclosures and S-REIT constituency and relative weightings in climate-related indexes. To reiterate two points: 1) Climate "disclosures" refers to qualitative aspects, not quantitative metrics (e.g., transparency of emissions disclosures not tonnes of emissions), and 2) assessments are relative ("Low" is low relative to the peer group, but not necessarily "bad").

S-REIT Index Constituents: Climate Disclosure Ratings

First, a high-level look at S-REIT inclusion and weightings in climate-related index relative to S-REIT climate-related disclosure "ratings." To summarise (see Methodology section for details), S-REITs were assessed on climate-disclosure criteria, assessments were quantified, then statistical distributions of those values determined categorical (High, Medium, or Low) disclosure "ratings." There are nine S-REITs in each category.

- **High:** Nine S-REITs with a "High" rating for overall climate-related reporting and disclosures are index constituents of 58 climate-related indexes, with an average weighting of 0.44%.
- **Medium:** The nine S-REITs with a rating of "Medium" for overall climate-related reporting and disclosures are constituents of 36 climate-related indexes, with a mean weighting of 0.25%.
- **Low:** Nine S-REITs with a "Low" rating for overall climate-related reporting and disclosures are constituents of just eight climate-related indexes and with an average weighting of 0.06%.

Chart: S-REITs in Climate-Related Indexes (Climate Disclosure Ratings)



Sources: Index providers, GRESB, SBTi, Alpppha Research. Circle size indicates total indexed assets, binned into discrete asset ranges.

S-REIT Index Constituents: Climate Metric Stringency

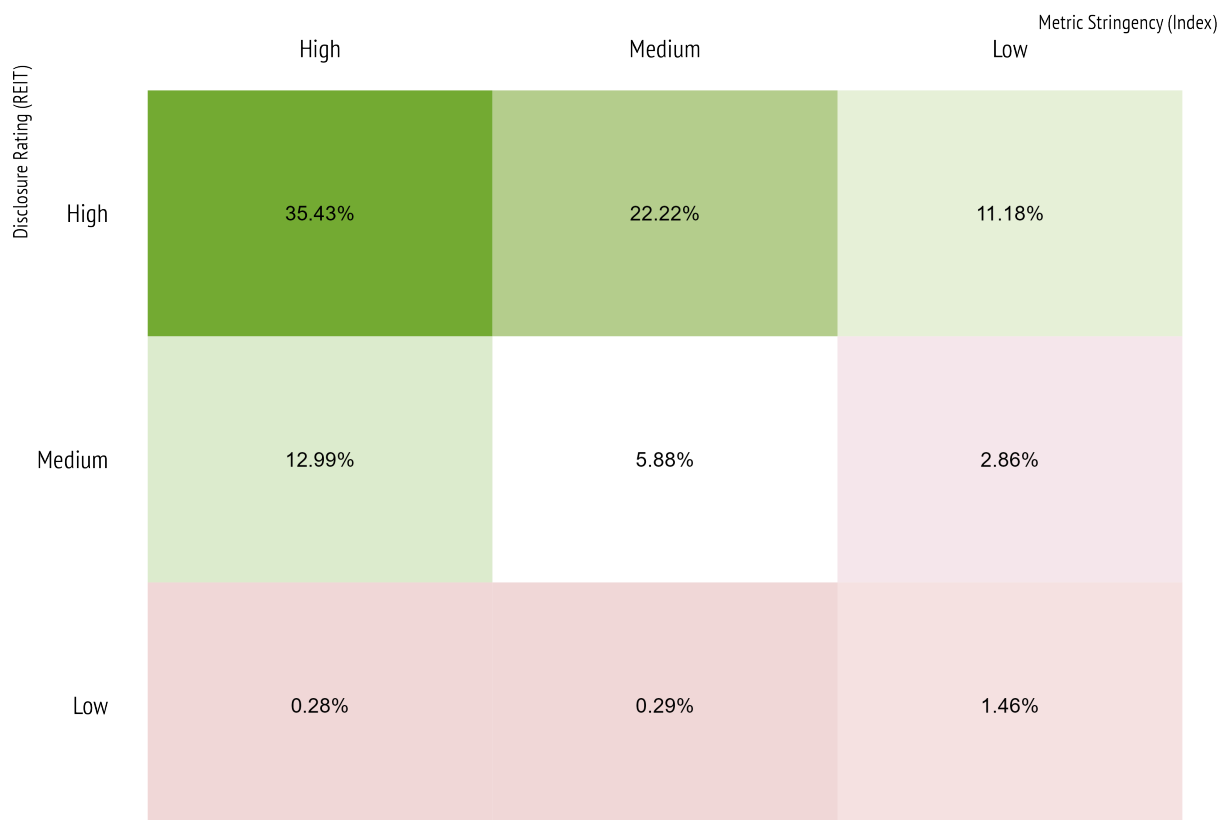
Whereas the prior section considered all climate-related indexes equally this section differentiates by indexing methodology to focus in on the *most* climate-related of climate-related indexes – i.e., those with the most stringent climate and carbon-related criteria. Toward this end, the 59 climate-related indexes were assessed and "rated" (using an approach similar to disclosure assessments) on two methodological categories: 1) climate/carbon metrics, and 2) application of metrics.

1. **Climate/Carbon Metrics:** Particular metrics in index methodologies. In scoring/rating, certain metrics are weighted more than others. For example, SBTi-approved targets are weighted more than self-reported targets. Only REIT-relevant metrics are considered (e.g., climate and carbon metrics such as fossil fuel reserves are excluded, as they are irrelevant to REITs).
2. **Application of Metrics:** Metrics are *applied* in numerous ways including eligibility (exclusion), selection (inclusion), and weightings. All are important, but in this analysis exclusion/selection applications are substantially more important than weighting-only applications, the rationale being that the former is a more rigorous test of climate-index "worthiness."

The chart below illustrates relationships between S-REITs' climate-related disclosure ratings (left side/y-axis), and climate-related index "metric stringency" ratings (top/x-axis) as described above. Percentages – i.e., the values that determine colour and shading – reflect total S-REIT weightings in all climate-related indexes with the corresponding stringency rating. In essence, more rigorous climate-related indexes favor more rigorous climate-related reporting. A few observations:

- The 35.4% in the upper left-hand box means S-REITs with "High" disclosure ratings account for 35.4% of indexed assets in indexes with a "High" (more rigorous) metric stringency rating.
- The bottom-right red boxes at first seem interesting, but there are too many other variables to infer causality (e.g., large global indexes are more balanced re: metrics (ESG vs. climate), with more constituents and smaller average weightings).

Chart: S-REIT Climate Disclosure vs Index Stringency (Total Weighting)



Sources: Index providers, Alpppha Research.

Table: S-REITs Constituents in the Most Climate-Stringent Indexes

Group*	S-REIT	Segment*	Indexes	Weighting*	Assets*
CapitaLand	CapitaLand Ascendas REIT (CLAR SP)	Industrial	12	2.33%	4,219,228
CapitaLand	Capitaland Integrated Commercial Trust (CICT SP)	Diversified	12	2.62%	4,189,576
Mapletree	Mapletree Logistics Trust (MLT SP)	Industrial	5	0.41%	499,579
Mapletree	Mapletree Pan Asia Commercial Trust (MCT SP)	Diversified	5	0.18%	272,109
CapitaLand	CapitaLand Ascott Trust (CLAS SP)	Hospitality	2	0.09%	14,985
Keppel	Keppel REIT (KREIT SP)	Office	2	0.09%	14,982
CapitaLand	Mapletree Industrial Trust (MINT SP)	Industrial	1	0.14%	5,394
Frasers	Frasers Logistics & Commercial Trust (FLT SP)	Diversified	1	0.09%	3,359
Keppel	Keppel DC REIT (KDCREIT SP)	Data Center	1	0.07%	2,599

Sources: Index providers, Singapore Exchange, Alpppha Research. * Groups are based on sponsor, ultimate parent, and/or majority stakeholder. Segment classifications are as per SGX Research. Weighting reflects total weighting across indexes. Assets are in USD.

S-REIT Index Constituents: Science Based Targets

Of the 27 S-REITs in climate-related indexes, eight have emissions targets approved by the Science Based Targets Initiative (SBTi). In general, all REITs with SBTi-approved emissions targets have an average weighting 1.9x higher than non-SBTi REITs (0.49% versus 0.26%) and 1.5x more in index-linked assets (US\$1.4 billion versus US\$0.9 billion). For S-REITs the difference is more pronounced – S-REITs with SBTi-approved targets have a mean weighting 2.4x greater than non-SBTi S-REITs (1.28% versus 0.53%), and 6.2x more indexed AUM (US\$146.8 million versus US\$23.8 million).

Table: S-REITs in Climate Indexes with Science Based Targets

Group*	Segment*	S-REIT	Weight*	AUM (\$)*	AUM (%)*
CapitaLand	Diversified	Capitaland Integrated Commercial Trust (CICT SP)	1.40%	74,174,929	50.52%
CapitaLand	Industrial	CapitaLand Ascendas REIT (CLAR SP)	1.27%	62,616,042	42.65%
CapitaLand	Hospitality	CapitaLand Ascott Trust (CLAS SP)	0.56%	1,149,252	0.78%
CapitaLand	Diversified	CapitaLand India Trust (AIT SP)	0.33%	26,725	0.02%
CapitaLand	Diversified	CapitaLand China Trust (CLCT SP)	0.00%	3,603	0.00%
Frasers	Diversified	Frasers Logistics & Commercial Trust (FLT SP)	0.52%	4,165,333	2.84%
Frasers	Retail	Frasers Centrepoint Trust (FCT SP)	0.37%	3,653,642	2.49%
Lendlease	Diversified	Lendlease Global Commercial REIT (LREIT SP)	0.18%	1,027,063	0.70%

Sources: Index providers, Morningstar, Trackinsight, and Singapore Exchange. * Groups are based on sponsor, ultimate parent, and/or majority stakeholder. Segment classifications are as per SGX Research. Weights reflect mean weighting across indexes. AUM is in USD. AUM percentages reflect percentage of SBTi-related AUM in prior column. CapitaLand and Lendlease REITs are included under CapitaLand Group and Lendlease Group targets. Frasers Centrepoint Trust's SBTi targets are pending approval, but are consistent with other Frasers targets already approved.

S-REIT Index Constituents: Green REITs/Real Estate

Twenty-four S-REITs are constituents in nine "Green REIT/Real Estate" thematic indexes, with a mean weighting of 0.49%. Total index-linked AUM is a mere US\$40.3 million, mainly attributable to the smaller average size of ETFs tracking thematic indexes as compared to ETFs tracking more general ESG or climate indexes. Nonetheless, Singapore's US\$40.3 million is considerably higher than the US\$5.0 million country average for other REITs in the same thematic indexes.

Table: Top 10 Constituents in "Green REIT" Thematic Indexes

Group	S-REIT	Indexes	Weight	Assets (\$)	Assets (%)
CapitaLand	Capitaland Integrated Commercial Trust (CICT SP)	7	2.97%	11,015,756	27.36%
CapitaLand	CapitaLand Ascendas REIT (CLAR SP)	8	1.55%	6,537,526	16.24%
Mapletree	Mapletree Logistics Trust (MLT SP)	7	0.51%	3,355,805	8.33%
Mapletree	Mapletree Pan Asia Commercial Trust (MCT SP)	7	0.86%	3,179,067	7.90%
Frasers	Frasers Logistics & Commercial Trust (FLT SP)	9	0.68%	2,820,463	7.01%
ESR	Suntec REIT (SUN SP)	6	0.44%	2,599,491	6.46%
Mapletree	Mapletree Industrial Trust (MINT SP)	6	1.31%	2,423,257	6.02%

Frasers	Frasers Centrepoint Trust (FCT SP)	6	0.42%	1,908,526	4.74%
Keppel	Keppel DC REIT (KDCREIT SP)	6	0.54%	1,418,450	3.52%
Keppel	Keppel REIT (KREIT SP)	7	0.43%	1,279,679	3.18%

Sources: Index providers, Morningstar, Trackinsight, Singapore Exchange. Groups are based on sponsor, ultimate parent, or majority stakeholder. Segment classifications are as per SGX Research. Weighting reflects mean weighting across indexes. Assets are in USD. Indexes (count) and asset percentage reflect Green REIT/Real Estate thematic indexes only.

In terms of S-REIT constituents and index-linked assets, the two most significant "Green REIT" thematic indexes are: 1) the FTSE EPRA Nareit Developed Green EU CTB Index, and 2) the SGX iEdge-UOB APAC Yield Focus Green REIT Index. Together, they account for 60% of all thematic AUM. FTSE EPRA Nareit Developed Green Target Index and FTSE EPRA Nareit Developed Green EU PAB Index are high in S-REIT constituents (23 and 21), but low in index-linked assets.

Eight S-REITs are constituents of three thematic indexes indirectly related to real estate. The MSCI ACWI IMI SDG 11 Sustainable Cities and Communities Index accounts for 89% of S-REIT assets linked to those indexes. Its S-REIT constituents are: CapitaLand Integrated Commercial Trust (1.2%), Mapletree Pan Asia Commercial Trust (0.4%), Frasers Logistics and Commercial Trust (0.3%), Frasers Centrepoint Trust (0.3%), Keppel REIT (0.2%), and Lendlease Global Commercial REIT (0.1%).

Table: Green REIT/Sustainable Real Estate Thematic Indexes

Index	S-REITs	Weighting	Assets (\$)	Assets (%)
FTSE EPRA Nareit Developed Green EU CTB Index	23	5.05%	12,883,243	32.00%
SGX iEdge-UOB APAC Yield Focus Green REIT Index	12	24.09%	11,073,319	27.50%
GPR Global 100 ESG Index	6	2.54%	7,542,116	18.73%
Dow Jones Global Select ESG Real Estate Index	11	2.65%	7,153,662	17.77%
MSCI Global Green Building Index	9	10.81%	618,618	1.54%
FTSE EPRA Nareit Developed Green Target Index	23	4.21%	373,275	0.93%
FTSE EPRA Nareit Developed Green EU PAB Index	21	4.52%	266,472	0.66%
FTSE EPRA Nareit IdealRatings Developed REITs Islamic Green Index	2	3.14%	202,988	0.50%
CenterSquare New Economy Real Estate UCITS Index	6	5.95%	148,078	0.37%

Sources: Index providers, Morningstar, Trackinsight. Weighting reflects aggregate weighting of all S-REITs. Assets are in USD. Asset percentages reflect percentage of thematic indexed AUM in previous column.

Concluding Thoughts

Without question, the new IFRS/ISSB standards – and related changes to SGX requirements – are more rigorous than anything that preceded them. Mandatory Scope 3 emission reporting will be a monumental challenge, for *all* issuers. But the transition will be relatively gradual, phased in with time to adapt. Effective dates for the most onerous aspects are still a couple of years away, at the earliest (mandatory Scope 3 reporting is effective as of a reporting company's 2026 fiscal year).

Regulatory directives are often necessary to jump-start progress on complicated transitions, such as this one. If not for the leadership of MAS and SGX, time would have stopped in the days of yore when "climate-related disclosures" meant a Corporate Social Responsibility report about orphans and orangutans, and a solar panel on a roof. These new requirements may at first feel "too far, too fast" but in the long run "stricter and sooner" could be the proverbial blessing in disguise.

At the very least, this is just the inevitable, in less time. Climate-related disclosures of this calibre are coming to jurisdictions around the world. Being among the earliest adopters could, ultimately, prove beneficial to Singapore companies. For S-REITs in particular (along with companies in other emissions-intensive industries), the longer-term benefits – mitigation of climate-related *risks* and realisation of climate-related *opportunities* – should be even more substantial.

The "investment case" for best-in-class climate-related disclosures.

Related SGX Products

Global changes and an evolving regulatory landscape require that investors re-evaluate traditional investment approaches, and incorporate sustainability risks and opportunities into their decision-making processes. SGX aims to be a leading sustainable and credible transition finance and trading hub with end-to-end products, solutions, and ecosystems.

In collaboration with [UOB's \(UOB SP\)](#) Asset Management division, SGX launched two REIT-related products. The [UOB APAC Green REIT ETF](#) is the world's first ETF that enables individuals to invest in quality green REITs across APAC. The [iEdge-UOB APAC Yield Focus Green REIT Index](#) serves to identify REITs with competitive yields, sufficient ESG disclosures, and strong environmental and climate-related performance.

To learn more about SGX's full suite of sustainability-aligned products and services, please see the [Sustainable Finance](#) page of SGX's website.

Appendix A: ESG-Related Index Universe

Category	Index	REITs	S-REITs	Assets
ESG/SRI*	MSCI World SRI Select Reduced Fossil Fuels Index	14	2	224,289,650
Climate*	MSCI World SRI Filtered PAB Index	14	2	197,506,918
ESG/SRI*	MSCI World Low Carbon SRI Leaders Index	23	1	143,051,615
ESG/SRI*	MSCI World SRI Low Carbon Select 5% Capped Index	13	1	139,314,129
Climate*	MSCI Pacific ex Japan SRI Filtered PAB Index	7	2	121,309,791
ESG/SRI*	MSCI World ESG Enhanced Focus CTB Index	61	4	118,255,611
ESG/SRI	MSCI EAFE Extended ESG Focus Index	6	0	76,985,328
ESG/SRI	MSCI ACWI Select ESG Screened Index	63	4	75,163,288
ESG/SRI*	MSCI ACWI ESG Universal Low Carbon Select 5% Capped Index	63	4	67,961,074
ESG/SRI*	MSCI World ESG Screened Index	61	4	59,974,583
ESG/SRI*	MSCI ACWI SRI Low Carbon Select 5% Capped Index	15	2	53,788,951
Climate*	MSCI Global Environment Select Index	30	5	38,000,202
Climate*	MSCI World SRI S-Series PAB 5% Capped Index	14	2	34,586,055
ESG/SRI*	MSCI ACWI Sustainable Impact Index	23	3	33,069,761
ESG/SRI*	MSCI Pacific SRI Low Carbon Select 5% Capped Index	6	1	30,290,237
ESG/SRI*	MSCI World Small Cap SRI Low Carbon Select 5% Capped Index	42	3	27,171,072
ESG/SRI*	MSCI World ESG Broad CTB Select Index	60	4	26,001,708
ESG/SRI	MSCI World ESG Leaders Select 5% Capped Index	23	1	24,793,606
Climate*	MSCI World Climate Change ESG Select Index	59	4	22,480,413
Climate*	MSCI World Climate Paris Aligned Filtered Index	33	2	21,781,435
Climate*	MSCI World Climate Paris Aligned Index	32	2	21,027,371

ESG/SRI	MSCI Pacific ex Japan ESG Filtered Min TE Index	8	2	20,751,516
ESG/SRI	MSCI World ex Australia Custom ESG Leaders Index	20	1	16,336,268
Thematic*	MSCI ACWI IMI SDG 11 Sustainable Cities and Communities Index	40	6	16,012,930
Climate*	MSCI ACWI Low Carbon Target Index	39	3	15,753,289
ESG/SRI	MSCI EAFE Choice ESG Screened Index	24	2	12,493,407
ESG/SRI	MSCI Pacific ex Japan Select ESG Screened Index	11	4	11,877,715
ESG/SRI*	MSCI World ESG Select Impact ex Fossil Fuels Index	12	1	7,655,798
ESG/SRI	MSCI World Small Cap SRI ESG Leaders Select Index	88	8	7,470,156
ESG/SRI*	MSCI World Small Cap ESG Enhanced Focus CTB Index	269	21	6,903,470
ESG/SRI*	MSCI World Catholic Principles ESG Universal and Environment Index	43	4	5,059,952
Climate*	MSCI World Climate Paris Aligned Benchmark Select Index	35	2	4,976,279
ESG/SRI*	MSCI Pacific ex Japan ESG Enhanced Focus CTB Index	11	4	4,745,111
Thematic*	MSCI Global Green Building Index	74	9	4,537,063
ESG/SRI*	MSCI Pacific ESG Broad CTB Select Index	19	4	4,260,186
Climate*	MSCI ACWI Climate Paris Aligned Index	34	2	4,156,042
ESG/SRI	MSCI World ESG Filtered Min TE Index	20	1	4,013,477
Climate*	MSCI AC Asia ex Japan Climate Action Index	5	4	3,918,346
ESG/SRI*	MSCI World ESG Universal Select Business Screens Index	61	4	3,719,767
Climate*	MSCI ACWI SRI Filtered PAB Index	15	2	2,692,045
ESG/SRI*	MSCI EAFE ex Fossil Fuels Index	25	4	2,596,617
ESG/SRI	MSCI World Select ESG Screened Index	61	4	2,009,342
Thematic*	MSCI ACWI IMI SDG Impact Select Index	40	7	1,931,416
Climate*	MSCI World ex USA Climate Paris Aligned Benchmark Select Index	18	3	1,808,712
ESG/SRI*	MSCI ACWI SRI Select Reduced Fossil Fuels Index	15	2	1,065,910
ESG/SRI	MSCI EAFE ESG Leaders Index	11	1	1,027,299
ESG/SRI*	MSCI World Select Sustainability Screened CTB Index	60	4	1,017,427
Thematic*	MSCI ACWI IMI SDG 12 Responsible Consumption and Production Index	70	8	1,005,607
ESG/SRI*	MSCI Pacific ex Japan ESG Universal Select Business Screens Index	11	4	916,316
Climate*	MSCI World ESG Climate Paris Aligned Benchmark Select Index	39	2	488,905
ESG/SRI	MSCI AC Far East ex Japan ESG Leaders Select 5% Capped Index	1	1	481,514
ESG/SRI*	MSCI Pacific ex Japan IMI SRI Low Carbon Select 5% Capped Index	13	4	403,431
Climate*	MSCI AC Asia Pacific ex Japan Climate Paris Aligned Index	9	3	392,317
Climate*	MSCI World ex EMU SRI Filtered PAB Index	14	2	233,591
ESG/SRI	MSCI World ESG Universal Select Index	60	4	56,914
ESG/SRI*	MSCI AC Asia ex Japan ESG Leaders Low Carbon Select 5% Capped Index	1	1	17,698
Thematic*	FTSE EPRA Nareit Developed Green EU CTB Index	261	23	223,881,207
ESG/SRI	FTSE Global All Cap ex U.S. Choice Index	170	28	27,540,873
ESG/SRI	FTSE Global All Cap Choice Index	290	25	17,035,306
ESG/SRI	FTSE Developed ex Australia Choice Index	82	10	15,054,989
Thematic	FTSE EPRA Nareit IdealRatings Developed Islamic Index	63	6	7,646,160
Thematic*	FTSE EPRA Nareit Developed Green Target Index	268	23	7,578,767
Thematic*	FTSE EPRA Nareit IdealRatings Developed REITs Islamic Green Capped Index	50	2	6,457,215
Thematic*	FTSE EPRA Nareit Developed Green EU PAB Index	243	21	4,717,618
ESG/SRI*	FTSE Asia Pacific ex Japan ESG Low Carbon Select Index	11	3	1,448,934
ESG/SRI	FTSE Developed Asia Pacific All Cap Choice Index	127	28	1,407,049
ESG/SRI*	FTSE Developed ESG Low Carbon Select Index	24	0	937,352
Thematic*	GPR Global 100 ESG Index	79	6	262,400,309
Thematic*	Dow Jones Global Select ESG Real Estate Index	197	11	250,775,742

Thematic	IQ CBRE NextGen Real Estate Index	87	7	140,681,757
ESG/SRI	IQ Candriam ESG International Equity Index	21	4	2,098,487
Thematic*	SGX iEdge-UOB APAC Yield Focus Green REIT Index	48	12	45,958,839
ESG/SRI	Solactive Core Developed Markets Pacific ex Japan Large & Mid Cap Index	15	8	17,930,036
ESG/SRI	Solactive Core Developed Markets Large & Mid Cap Index	55	8	3,446,824
Climate*	Solactive UBS Climate Aware Global Developed Equity CTB Index	40	5	599,241
Climate*	Solactive ISS ESG Developed Markets Paris-Aligned Benchmark Index	52	6	204,921
Climate*	Solactive ISS ESG Developed Markets Net Zero Pathway Index	53	6	8,272
Climate*	Bloomberg PAB APAC DM ex Japan Large & Mid Cap Index	8	3	10,474,538
Thematic*	CenterSquare New Economy Real Estate UCITS Index	41	6	1,965,937
ESG/SRI*	Northern Trust ESG & Climate Developed Markets ex-US Core Index	9	1	696,098
ESG/SRI*	Foxberry Sustainability Consensus Pacific ex Japan Index	14	7	225,805

Sources: Index providers, Morningstar, Trackinsight. * Indicates a climate/carbon-related index. Assets are in USD. Linked assets reflect value of REIT holdings, not total ETF assets.

Appendix B: ETFs With S-REIT Constituents

Manager	Fund	Assets
VanEck	VanEck Global Real Estate UCITS ETF	264,917,020
State Street	SPDR Dow Jones Global Real Estate ESG Fund	256,102,678
BlackRock	iShares MSCI World SRI UCITS ETF	225,348,789
Amundi	Amundi MSCI World SRI Climate Net Zero Ambition PAB UCITS ETF	197,863,071
Credit Suisse	CSIF FTSE EPRA Nareit Developed Green Blue UCITS ETF	192,113,312
DWS	Xtrackers MSCI World ESG UCITS ETF	143,209,145
IndexIQ	IQ CBRE NextGen Real Estate ETF	140,681,757
Amundi	Amundi MSCI Pacific ex Japan SRI PAB UCITS ETF	121,309,791
BlackRock	iShares MSCI World ESG Enhanced UCITS ETF	118,635,244
UBS	UBS MSCI World Socially Responsible UCITS ETF	111,726,703
DWS	Xtrackers MSCI AC World ESG Screened UCITS ETF	75,208,413
UBS	UBS MSCI ACWI ESG Universal Low Carbon Select UCITS ETF	68,227,160
BlackRock	iShares MSCI World ESG Screened UCITS ETF	60,167,118
UBS	UBS MSCI ACWI Socially Responsible UCITS ETF	54,032,095
UOB	UOB APAC Green REIT ETF	46,006,180
Invesco	Invesco MSCI Sustainable Future ETF	38,000,202
BNP Paribas	BNP Paribas Easy MSCI World SRI S-Series PAB 5% Capped UCITS ETF	34,686,646
BNP Paribas	BNP Paribas Easy FTSE EPRA Nareit Global Developed Green CTB ETF	34,531,454
BlackRock	iShares MSCI Global Sustainable Development Goals ETF	33,149,320
UBS	UBS MSCI Pacific Socially Responsible UCITS ETF	30,344,858
UBS	UBS MSCI World Socially Responsible UCITS ETF	28,402,640
Vanguard	Vanguard ESG International Stock ETF	27,788,188
UBS	UBS MSCI World Small Cap Socially Responsible UCITS ETF	27,171,072
Amundi	Amundi MSCI World ESG Climate Net Zero Ambition CTB UCITS ETF	26,072,103
Amundi	Amundi MSCI World ESG Leaders UCITS ETF	24,818,425
Deka	Deka MSCI World Climate Change ESG UCITS ETF	22,502,915
Amundi	Amundi MSCI World Climate Net Zero Ambition PAB UCITS ETF	21,943,819
BNP Paribas	BNP Paribas Easy MSCI Pacific ex Japan ESG Filtered Min TE UCITS ETF	20,757,743

HSBC	HSBC MSCI World Climate Paris Aligned UCITS ETF	20,703,103
L&G	L&G Asia Pacific ex Japan UCITS ETF	17,946,188
Vanguard	Vanguard ESG Global All Cap UCITS ETF	17,045,533
DWS	Xtrackers MSCI Global SDG 11 Sustainable Cities UCITS ETF	16,014,531
BlackRock	iShares MSCI ACWI Low Carbon Target ETF	15,795,938
Vanguard	Vanguard Ethically Conscious International Shares Index ETF	15,065,535
DWS	Xtrackers MSCI Pacific ex Japan ESG Screened UCITS ETF	11,877,715
BlackRock	iShares Core MSCI World ex Australia ESG Leaders ETF	11,080,424
BlackRock	iShares ESG Advanced MSCI EAFE ETF	10,749,707
Ossiam	Ossiam Bloomberg Asia Pacific ex Japan PAB UCITS ETF	10,474,538
HSBC	HSBC FTSE EPRA Nareit Developed Islamic UCITS ETF	7,705,492
BlackRock	iShares Environmentally Aware Real Estate ETF	7,680,923
CI	CI MSCI World ESG Impact Index ETF	7,672,678
HSBC	HSBC MSCI World Small Cap ESG UCITS ETF	7,482,877
BlackRock	iShares MSCI World Small Cap ESG Enhanced UCITS ETF	6,938,858
ETC	ETFB Green SRI REITs ETF	6,506,010
BlackRock	iShares Core MSCI World ex Australia ESG Leaders ETF (Hedged)	5,303,119
Amundi	Amundi MSCI World Catholic Principles ESG UCITS ETF	5,067,553
BlackRock	iShares MSCI World Paris-Aligned Climate UCITS ETF	4,989,751
BlackRock	iShares MSCI Pacific ex-Japan ESG Enhanced UCITS ETF	4,768,477
HSBC	HSBC FTSE EPRA Nareit Developed Climate Paris Aligned UCITS ETF	4,737,302
Invesco	Invesco MSCI Green Building ETF	4,592,169
Amundi	Amundi MSCI Pacific ESG Climate Net Zero Ambition CTB UCITS ETF	4,260,186
BNP Paribas	BNP Paribas Easy MSCI World ESG Filtered Min TE UCITS ETF	4,030,212
BlackRock	iShares MSCI Asia ex Japan Climate Action ETF	3,974,788
Invesco	Invesco MSCI World ESG Universal Screened UCITS ETF	3,724,237
State Street	SPDR MSCI ACWI Climate Paris Aligned ETF	3,635,332
L&G	L&G Global Equity UCITS ETF	3,453,040
Amundi	Amundi MSCI ACWI SRI PAB UCITS ETF	2,696,629
State Street	SPDR MSCI EAFE Fossil Fuel Reserves Free ETF	2,602,081
IndexIQ	IQ Candriam ESG International Equity ETF	2,104,380
DWS	Xtrackers MSCI World ESG Screened UCITS ETF	2,010,749
WisdomTree	WisdomTree New Economy Real Estate UCITS ETF	1,985,193
DWS	Xtrackers MSCI Global SDGs UCITS ETF	1,932,382
BlackRock	iShares Paris-Aligned Climate MSCI World ex USA ETF	1,812,155
BlackRock	iShares ESG Advanced MSCI EAFE Index ETF	1,790,636
HSBC	HSBC Asia Pacific ex Japan Sustainable Equity UCITS ETF	1,448,934
Vanguard	Vanguard ESG Developed Asia Pacific All Cap UCITS ETF	1,407,049
BlackRock	iShares MSCI ACWI SRI UCITS ETF	1,071,697
DWS	Xtrackers MSCI World Climate Transition UCITS ETF	1,018,241
DWS	Xtrackers MSCI Global SDG 12 Circular Economy UCITS ETF	1,009,139
Invesco	Invesco MSCI Pacific ex Japan ESG Universal Screened UCITS ETF	917,416
FlexShares	FlexShares ESG & Climate Developed Markets ex-US Core Index Fund	703,200
UBS	UBS Climate Aware Global Developed Equity CTB UCITS ETF	603,708
BMO	BMO MSCI EAFE ESG Leaders Index ETF	576,997
Invesco	Invesco MSCI World ESG Climate Paris Aligned UCITS ETF	490,672
Amundi	Amundi MSCI AC Far East ex Japan ESG Leaders Select UCITS ETF	481,514
DWS	Xtrackers MSCI EAFE ESG Leaders Equity ETF	455,711

UBS	UBS MSCI Pacific ex Japan IMI Socially Responsible UCITS ETF	403,431
HSBC	HSBC MSCI AC Asia Pacific ex Japan Climate Paris Aligned UCITS ETF	392,317
UBS	UBS MSCI ACWI Climate Paris Aligned UCITS ETF	318,643
UBS	UBS MSCI World Climate Paris Aligned UCITS ETF	309,074
Amundi	Amundi MSCI World ex EMU SRI PAB Net Zero Ambition UCITS ETF	233,965
L&G	L&G Asia Pacific ex Japan ESG Exclusions Paris Aligned UCITS ETF	226,144
Goldman Sachs	Goldman Sachs Paris-Aligned Climate World Equity UCITS ETF	204,921
State Street	SPDR MSCI World Climate Paris Aligned UCITS ETF	190,120
State Street	SPDR MSCI ACWI Climate Paris Aligned UCITS ETF	148,372
BMO	BMO MSCI ACWI Paris Aligned Climate Equity Index ETF	92,477
Amundi	Amundi MSCI World ESG Universal Select UCITS ETF	56,943
UBS	UBS MSCI AC Asia (ex Japan) ESG Leaders Low Carbon Select UCITS ETF	17,732
DWS	Xtrackers World Net Zero Pathway Paris Aligned UCITS ETF	8,278

Sources: Index providers, Morningstar, Trackinsight. Assets are in USD. Assets totals reflect index-linked REIT holdings (both S-REITs and non-Singapore REITs) not total ETF assets.

Disclosure & Certification

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— Kyle Rudden (01 Apr 2024)

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