Singapore Industry Focus Singapore Data Centre-focused REITs

DBS Group Research . Equity

Fuel for the digital world

- Data centre (DC) S-REITs' recent correction presents opportunities to buy "growth at attractive prices"
- Compared against DBS's metrics, KDCREIT and DCREIT came out on top to ride on the sector's rapid growth
- Pipelines remain crucial for REITs to tap into, as returns remain compressed due to high competition
- <u>AREIT</u> and <u>MINT</u> provide diversified exposure to a wider "new economy" spectrum but with a more steady but sustainable growth profile

Data centre-focused S-REITs' price correction provides opportunity to buy growth at attractive prices. We believe that data centre (DC)-focused S-REITs will remain a key part of investors' portfolios going forward. We remain convinced that DCs remain the "oil" for the digital world post COVID, with demand exceeding supply, which translates into a continuously tight transaction market with improving operating metrics. With the recent share price correction, yields for the four DC-focused S-REITs have expanded to >5.0% on average, and we see attractive re-entry points at the current levels. The market appears to have "discounted" the superior growth that our DC-focused S-REITs offer to investors, especially when selected S-REITs have significant pipelines that can be acquired from their respective sponsors over time.

KDCREIT and DCREIT stand out as our preferred plays in

our value metrics. We compare the DC-focused S-REITs over seven holistic metrics covering (i) concentration risk, (ii) geographical exposure, (iii) DC type, (iv) acquisition pipeline, (v) debt headroom, (vi) valuations, and (vii) growth. Based on this scoring system we have formulated, **KDCREIT** and **DCREIT** stand out. Amongst the metrics, we believe that having sponsors that are both owners and operators will lead to both REITs acquiring operational data centres ("colocation"), which we believe translate into more sticky tenants and drive stronger earnings growth.

Data centre exposures complement AREIT's and MINT's "new economy-focused" portfolios. Although MINT and AREIT started out and recently pivoted into the DC space, their operational scale and diversity should be valued. We believe that their balanced exposures, including other new economy segments (logistics, IT parks, life science parks), provide myriad growth drivers for the respective REITs.

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STI: 3,226.72

Analyst

Dale LAI +65 66823715 dalelai@dbs.com Derek TAN +65 6682 3716 derektan@dbs.com

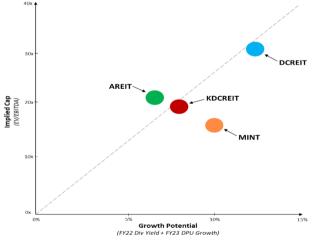
Refer to important disclosures at the end of this report

STOCKS

			12-mth			
	Price	Mkt Cap	Target Price	Performa	nce (%)	
	S\$	US\$m	S\$	3 mth	12 mth	Rating
Ascendas REIT	2.79	8,521	3.65	(2.1)	(4.8)	BUY
Digital Core REIT	0.97	1,092	1.30	(13.4)	N.A	BUY
<u>Keppel DC REIT</u>	1.99	2,486	2.40	(11.2)	(22.6)	BUY
<u>Mapletree</u> Industrial Trust	2.48	4,801	3.05	(5.0)	(10.8)	BUY

Source: DBS Bank, Bloomberg Finance L.P. Closing price as of 2 Jun 2022

Valuation vs. growth of S-REITs with data centre exposure



Source: DBS Bank



ed: BM/ sa: AS, PY, CS



The rise of data centre-focused S-REITs

First data centre REIT listed in Asia, KDC still the purer play for Singapore. In December 2014, Keppel DC REIT (KDCREIT) was the first data centre REIT to be listed in Asia, with an initial portfolio of eight properties with an AUM of c.S\$1.0bn. Backed by an acquisition pipeline from its sponsor, as well as several third-party acquisitions, KDCREIT embarked on an impressive growth trajectory that saw its AUM grow at a CAGR of c.20% since its listing. Today, KDCREIT's AUM of c.S\$3.5bn consists of 21 quality data centres across nine countries in Asia Pacific and Europe. In addition to tapping into its sponsor's acquisition pipeline, KDCREIT leverages on its sponsor's expertise and track record in developing and managing data centre assets. In recent years, KDCREIT undertook AEIs and expansions at several of its properties to increase data centre capacity and drive revenue growth.

With the majority of its portfolio based in Singapore (c.55%), KDCREIT has the largest portfolio of data centres in Singapore compared to its peers. We believe that the moratorium on new data centre developments in Singapore over the past two years has benefited KDCREIT. While the data centre development moratorium has recently been lifted, we understand that the authorities will be selective in granting approvals for new developments. Moreover, there may be a cap on the number of approvals for new developments as Singapore works towards more sustainable power to reduce its carbon footprint. There could even be further moratoriums on new data centre developments until Singapore ramps up its production and import of more renewable energy by FY25-FY27.

The limited availability of new supply could further boost occupancy and rental rates of data centres in Singapore, and we foresee KDCREIT as the major beneficiary among its peers.

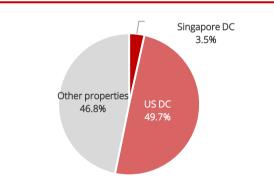
Data centres have been in Singapore for more than a

decade. Before the listing of KDCREIT in 2014, several S-REITs already had data centre investments within their portfolio, namely Ascendas REIT (AREIT) and Mapletree Industrial Trust (MINT). Both REITs had Singapore data centre properties within their portfolios as early as 2010.

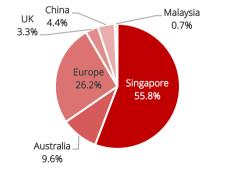
Most notably, AREIT constructed a built-to-suit data centre for Singtel at Kim Chuan Road which was next to another property that was also leased to Singtel. The built-to-suit data centre was completed in 2010. MINT also had a data centre development that was completed in 2010, and it also served as the corporate headquarters for Tata Communications. Since then, both AREIT and MINT had invested in several other data centres in Singapore, including MINT's built-to-suit data centre development for Equinix.

MINT ramped up its data centre investments in October 2017 with the acquisition of a portfolio of 14 data centres in the US jointly with its sponsor. The total portfolio was valued at US\$750m and MINT's 40% stake was valued at US\$300m. since then, MINT continued growing its data centre presence in the US with several other acquisitions. Data centres now make up c.53.2% of MINT's AUM, with the US data centres accounting for c.49.7%.

MINT asset allocation (by AUM)



KDCREIT asset allocation (by AUM)



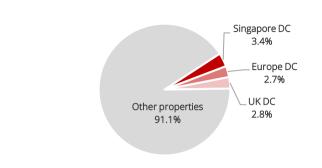
Source: MINT, DBS Bank

Although AREIT was one of the earliest S-REITs to invest in data centres, they only grew this exposure significantly in March 2021 with the acquisition of a portfolio of 11 data centres in Europe for c.S\$905m. Including the three data centres in Singapore, approximately 8.9% of AREIT'S AUM is attributed to data centres.

Source: KDCREIT, DBS Bank



AREIT asset allocation (by AUM)



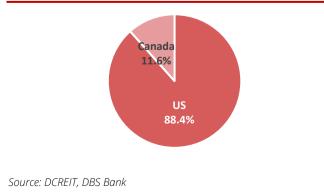
Source: AREIT, DBS Bank

Entrant of a potential giant. Most recently, on 6 December 2021, Digital Core REIT (DCREIT) was listed on the SGX with an initial portfolio of 10 data centre properties in the US and Canada. DCREIT's 90% stake in the portfolio is valued at c.US\$1.3bn, and its sponsor will continue to hold the remaining 10% interest in the assets. Backed by the largest owner and operator of data centres, DCREIT also benefits from being granted a global ROFR to its sponsor's pipeline valued at more than US\$15.0bn. Although DCREIT currently has the smallest portfolio among its peers, it has the largest ROFR pipeline of data centres.

Moreover, DCREIT's sponsor Digital Realty recently mentioned in their FY21 results briefing that DCREIT will be the ideal vehicle to hold its core assets and co-invest in future developments. The sponsor also mentioned that they target to raise between US\$500m to US\$1bn from capital recycling, by divesting assets to either DCREIT or third parties.

Executing this strategy will provide DCREIT with the ideal opportunity to acquire stabilised core assets from its sponsor's pipeline, especially given the REIT's currently low leverage ratio of only 27.0%. Assuming a leverage of up to 40%, DCREIT has a debt headroom of more than US\$280m to embark on fully debt-funded acquisitions.

DCREIT asset allocation (by AUM)



Not all data centres are created equal. As the tech sector and digital economy continue expanding, there is an everincreasing demand for data storage, and spending on data centres has been growing exponentially. In the past, data centres were predominantly owned and managed by telecommunication companies. As demand continued to grow and the industry matured, colocation operators were established, and tech giants also began building their own capabilities to manage hyperscale data centres.

Currently, there are three main types of data centre leases, namely, i) colocation, ii) fully fitted, and iii) shell & core lease. Although the three types of data centre leases require relatively similar infrastructure and are fundamentally the same, the different operational models impact the investment risks and valuations of each data centre type.

Shell & core or powered shell data centres. This type of data centre is leased on a "shell" basis and the landlord does not invest in the M&E infrastructure fit-out of the property. The landlord is only responsible for the provision of power to the property, and the exposure to technical and operational risks is limited. These properties are typically let to a single data centre operator and leases tend to be relatively long, at least 10 years.

Fully fitted data centres. Landlords are responsible for the fit-out of the property including the M&E equipment within the data halls. Similarly, fully fitted data centres are typically let to single tenants on a long-term lease. In addition, leases are usually structured on a triple net basis, and the tenant is responsible for maintaining the building and M&E fit-outs. Although fully fitted data centres also do not carry operational risks, there are additional risks associated with obsolescence of M&E equipment as compared to shell & core data centres.

Colocation or turnkey data centres. This category of data centres is the most complex operationally and the landlord acts as the data centre operator. The landlord will be responsible for all operational aspects of the building including power delivery, M&E maintenance, back-up power, security, and other ancillary services. Colocation data centres house multiple retail or wholesale tenants and each lease is individually negotiated. Colocation data centres tend to be more management intensive, and the landlord is exposed to operational risks including the maintenance and replacement of M&E infrastructure.

Data centres with higher tiers do not necessarily mean a better investment. The data centre tier system was designed by the Uptime Institute to classify data centres based on a set of criteria. The certification is an independent measure that relates to redundancy,



availability, and fault tolerance. The four data centre tiers are progressive, with tier 1 denoting the most basic and tier 4 the more reliable. However, from an investment perspective, it does not always mean that tier 4 data centres are the best to own. This is because each tier fits different business needs, and the higher redundancy for tier 4 data centres means they cost the most to build and are often an "overinvestment".

Moreover, the various tiers cater to the different users based on their needs and cost expectations. Tiers 1 and 2 are more suited for smaller companies and SMEs as they look at affordable data centre solutions and, in return, are willing to potentially accept some downtime. Large businesses and government entities, which see high levels of data processing and high traffic, expect minimal or no downtime, and thus are willing to spend more on data centre solutions and redundancies.

Three main data centre formats

	Shell & Core/ Powered Shell	Fully Fitted	Colocation/ Turnkey
M&E Infrastructure	No	Yes	Yes
Facility Management	No	No	Yes
Operational Risk	No	No	Yes
Tenant	Single	Single	Multiple

Source: CBRE, DBS Bank

Tiering system of data centres

Parameters	Tier 1	Tier 2	Tier 3	Tier 4	
Uptime guarantee	99.671%	99.741%	99.982%	99.995%	
Downtime per year	< 28.8hrs	< 22.0hrs	< 1.6hrs	< 26.3mins	
Component redundancy	-	Partial N +1	Full N + 1	2N or 2N + 1	
Development cost	\$	\$\$	\$\$\$	\$\$\$\$	
Typical tenants	Small companies, start-ups	SME	Growing and large businesses	Government entities, large enterprises	
Main reason for choosing	Most affordable	Good cost-to- performance ratio	Good balance between high performance and affordability	Ideal for consistently high level of traffic and processing	

Source: phoenixNAP



Who is the "prettiest" of them all?

Investors have always looked to invest in various industrial and data centre names to gain exposure to the fastgrowing data centre industry. While the various DC-focused names provide differing exposures and growth prospects, we compare the DC-focused S-REITs over seven metrics: (i) Concentration risk, (ii) geographical exposure, (iii) DC type, (iv) acquisition pipeline, (v) debt headroom, (vi) valuations, and (vii) growth.

(i) Overall concentration

S-REIT with the largest data centre portfolio. Although data centres only make up c.53% of MINT's portfolio, from an overall quantum perspective, MINT has the largest data centre exposure (by AUM), valued at c.S\$4.6bn. The S-REIT with the next largest data centre exposure is KDCREIT, with an AUM of c.S\$3.5bn, followed by DCREIT (c.S\$1.8bn) and AREIT (c.S\$1.5bn).

Although MINT has the largest exposure to data centres, almost half of its portfolio consists of industrial and business park properties, which have differing fundamental drivers compared to data centres. Only KDCREIT and DCREIT are pure-play data centre S-REITs with sponsors that are also established data centre operators. As such, they offer the most direct exposure to the data centre space, in our view.

(ii) <u>Geographical exposure</u>

Data centres in Singapore to benefit from moratorium and limited new supply. We prefer data centre REITs with geographical diversity, which helps mitigate concentration risks in each market. Based on our observation, KDCREIT and AREIT have the most geographically diversified data centre portfolios, while MINT's data centre portfolio is concentrated in the US and DCREIT's entire portfolio is located in the US.

In addition to geographical diversity, we also believe that data centre REITs with assets in Singapore will benefit from the moratorium on the development of new data centres over the past two years. Although the moratorium has just been lifted, we understand that there are stricter regulations in place that also limit the supply of new developments in the next few years, implying that incumbents will continue to do well.

(iii) Data centre type

Preferred data centre format. As highlighted previously, the three main data centre formats are colocation, fully fitted, and shell & core. The four S-REITs with data centre

exposure hold a mix of the various formats. KDCREIT has the highest concentration of colocation assets (c.70%), DCREIT of fully fitted data centres (c.67%), and MINT of shell & core (c.64%).

S-REIT data centre portfolio

	AUM (Data Centre)	Colocation	Fully Fitted	Shell & Core
KDCREIT	S\$3.5bn	70%	19%	11%
DCREIT	S\$1.8bn	-	67%	33%
AREIT	S\$1.5bn	55%	-	45%
MINT	S\$4.6bn	-	36%	64%

Source: DBS Bank estimates

Although shell & core data centres may seem the most attractive as it requires minimal management and does not carry any operational risks, landlords of colocation and fully fitted facilities could potentially generate higher profits from the individual smaller tenants with the right operational experience. Moreover, with the rapid growth of the digital economy worldwide, colocation facilities may benefit from increased demand by SMEs and start-ups, as they do not have the capability to manage and operate their own data centres. Operators of colocation data centres could also benefit from higher rental rates arising from the surge in demand while new supply lags demand growth.

As much as we like MINT's data centre portfolio that is expected to deliver more stable returns, we think that KDCREIT and DCREIT could benefit from the surge in data centre demand, especially as their sponsors have an established and proven track record in managing data centre facilities efficiently. Although both REITs are exposed to more operational and equipment obsolescence risks, we believe that they will be capable of managing these risks and taking advantage of the structural growth trajectory and increasing demand for data centres globally.

(iv) Acquisition pipeline

MINT and DCREIT have near-term acquisition opportunities in the pipeline. Over the past two years, competition for data centres has led to significant cap rate compression. Given that data centre cap rates have tightened, S-REITs are finding it increasingly difficult to hunt for accretive acquisitions, especially when their own cost of equity has risen in recent months. Therefore, this makes the sponsor pipeline even more prized for its access to inorganic growth. Among the four S-REITs, we believe that DCREIT and MINT have the most acquisitions in its pipeline in the immediate future. DCREIT has been granted a global ROFR to a portfolio of data centres from its sponsor that is valued at more than US\$15bn. MINT has a further c.S\$1.1bn in its data centre pipeline it can tap into through the remaining 50% stake in 13 data centres that it currently owns jointly with its sponsor.

As such, DCREIT and MINT are preferred over its peers for their access to immediate pipeline acquisitions from its sponsors.

(v) Debt headroom

Debt headroom crucial in executing deals on short notice. The keen competition for quality data centre assets has meant that the "ability to close" is key in the current market. As such, we believe that a larger debt headroom allows REITs to rely on debt to fund accretive acquisitions (albeit from a transitory basis), especially when yields continue to compress. On average, the four REITs have a healthy gearing of c.34.4%, which provides them with ample headroom to pounce on acquisitions swiftly. Assuming a conservative gearing limit of up to 40%, AREIT has the largest debt headroom of c.S\$1.1bn, given its larger portfolio, followed by DCREIT's c.S\$380m and KDCREIT's S\$315m. MINT has the least debt headroom of only c.S\$200m, despite its recent FY21/22 year-end revaluation exercise that saw cap rate compressions in its data centre portfolio. With a relatively optimal gearing of 38.4%, MINT has minimal debt headroom before reaching a gearing of 40%, and it is unlikely the REIT will want to push gearing higher, towards 45%.

As a percentage of current AUM, DCREIT's debt headroom provides it with the potential to grow its portfolio by c.22%. KDCREIT could potentially expand its AUM by c.9%, while AREIT and MINT could grow by c.7% and c.6%, respectively. **(vi)** <u>Valuations</u>

Trading at attractive premium to historical average yields.

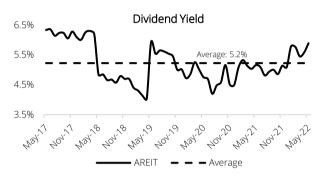
Over the past few months, we have seen a correction in S-REITs on fears of rising interest rates. Industrial REITs and, more specifically, the data centre-focused REITs also saw a steeper correction as the market rotated to re-opening beneficiaries. We believe that investors' preferences also switched to the reopening plays such as the retail and hospitality sectors. Overall, the data centre-focused S-REITs that outperformed during the COVID-19 pandemic are now trading at yields that are above their historical five-year average.

KDCREIT is currently trading at the highest premium of c.0.8% to its historical average yields. AREIT is trading at c.0.7% above average, while MINT is trading at a c.0.4%

premium. As DCREIT was only listed less than six months ago, we compared its current dividend yield against its historical six-month average, and it is trading at a c.0.3% premium.

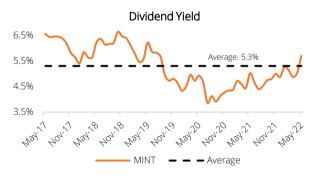
For this metric, we like AREIT and KDCREIT, as they are trading at the widest premium to their historical average, and both REITs are trading at c.-1.0SD to their mean. MINT's current yield is c.-0.5SD to its historical mean.

AREIT trading at yields of c.0.7% above historical average



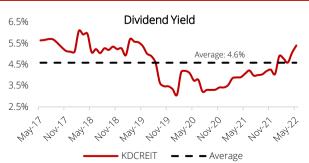
Source: AREIT, DBS Bank estimates

MINT trading at yields of c.0.4% above historical average



Source: MINT, DBS Bank estimates

KDCREIT trading at yields of c.0.8% above historical average



Source: KDCREIT, DBS Bank estimates



(viii) FY23 DPU growth

DCREIT has the strongest expected FY23 DPU growth fuelled by acquisitions. Among the four REITs with data centre exposure, DCREIT is expected to have the strongest FY23 DPU growth of c.8%. In our estimates, DCREIT's strong DPU growth is mainly fuelled by assumed acquisitions valued at c.US\$250m this year, which we believe will come from its sponsor's pipeline. We have also assumed acquisitions worth c.S\$100m for KDCREIT by the end of this year, and it will also be the main driver for KDCREIT's FY23 DPU growth of c.3%.

How DC-focused REITs fare across 7 metrics

Although we have not assumed any acquisitions for both AREIT and MINT in our estimates, their larger market cap would mean that they have to embark on significantly larger acquisitions for it to drive significant DPU growth. Without a pipeline of data centres from its sponsor, we believe that it would be challenging for both REITs to grow its data centre exposure meaningfully, especially given the tightening cap rates and rising interest rates that would make accretive acquisitions even harder to achieve. Based on our estimates, a c.S\$200m-S\$300m acquisition with a yield of 4.5% would drive both AREIT's and MINT's FY23 DPU growth of less than 1ppt.

	Data centre portfolio	AREIT	MINT	KDCREIT	DCREIT	Remarks
(i)	Overall data center concentration	V	√√	√√√	√√√	Only KDCREIT and DCREIT have pure-play data centre S-REITs
(ii)	Geographical exposure	√√	√√	√√√	V	KDCREIT has the most geographically diversified exposure with the largest concentration in Singapore that is expected to benefit from the limited new supply due to the moratorium
(iii)	Colocation or turnkey	√√	√√	√√√	√√√	We prefer KDCREIT and DCREIT for its bigger exposure to colocation and fully fitted data centres, and the backing they receive from their sponsors in operating the properties
(iv)	Acquisition pipeline	\checkmark	√√√	\checkmark	√√√	MINT and DCREIT have clearer acquisition pipelines in the immediate future compared to its peers
(v)	Debt headroom capacity (to 40%)		\checkmark		√√√	DCREIT has the largest debt headroom (by percentage of AUM)
(vi)	Valuations	√√√	√√	√√√	\checkmark	AREIT and KDCREIT trading at c1.0SD to its historical five-year average
(vii)	FY23 DPU growth	\checkmark	√√	√√	√√√	DCREIT is expected to post strong DPU growth that is mainly driven by acquisitions
	Total ticks	12	14	17	17	KDCREIT has the highest overall score on the basis of its data centre portfolio

Source: DBS Bank



KDCREIT is the overall winner. On the basis of data centre exposure, we rate KDCREIT and DCREIT as the highest among its peers, mainly due to its pure-play data centre portfolio. As KDCREIT has a proven track record of successfully operating and managing data centres (together with its sponsor), we believe that this provides it with an edge over DCREIT. Moreover, KDCREIT has proven its ability to grow its portfolio over the years through accretive acquisitions and value-enhancing AEIs. Even as cap rates and yields compressed aggressively over the past two years, KDCREIT held firm on its belief of only acquiring assets which it believes will drive long-term value for the REIT, choosing to focus its efforts on AEIs to drive organic growth, and exploring alternative investments that are complementary to its portfolio and suit its expertise.

Although KDCREIT does not have a pipeline from its sponsor on the immediate horizon, there are data centre assets worth over S\$2bn that are under development and management through its sponsor and affiliated funds. We believe that KDCREIT will be capable of sourcing for thirdparty properties and development projects, as it has in the past, and will actively work on growing its portfolio inorganically until sponsor pipelines are available.

DCREIT also stands out for its pure-play data centre

portfolio. DCREIT's portfolio fundamentals are comparable to KDCREIT, but having only been listed approximately five months ago, we believe that it still has a long runway ahead. Although it is backed by a sponsor, who is the leader in the data centre world and has access to an enviable pipeline, we believe that we will only be able to evaluate its growth prospects fairly after it delivers its first acquisition and

builds up a track record. Moreover, with interest rates in the US rising very significantly in recent months, it remains to be seen if they are able to generate healthy accretion from its first acquisition.

AREIT and MINT have their own merits in addition to data

centres. Although AREIT and MINT did not score as highly as KDCREIT and DCREIT in this exercise, we believe that they still provide compelling exposure to data centres. AREIT has its business park portfolio to drive growth and we believe the recent commencement of the redevelopment at 1 Science Park Drive has kick-started the multi-year rejuvenation of its science park portfolio in Singapore. On the other hand, as MINT continues to cement its position as a major data centre S-REIT, the redevelopment at Kolam Ayer will rejuvenate its industrial portfolio and drive earnings growth in the medium term.

Keeping a close watch on continued cap rate compressions and rising interest rates. We are mindful that with interest rates rising very significantly in the past months, REITs may find it increasingly difficult to acquire data centres accretively. We have thus brought down our acquisition assumptions for KDCREIT for FY22 but remain confident that DCREIT will be able to deliver on acquisitions, given its sponsor's large pipeline. What remains to be seen is how accretive these acquisitions will be, and if the REITs will look to acquire data centres with higher risks that also provide better yields. Higher risks include older assets which may require some capex in the medium term, or those with near-term lease expiries.

	CUR	Price	Rec	Target Price	Mkt Cap	DPU FY21/22	DPU FY22/23	DPU FY23/24	Yield (FY21/22)	Yield (FY22/23)	Yield (FY23/24)	P/NAV	NAV/share
AREIT	S\$	2.69	BUY	3.65	11,292	15.3	16.0	16.2	5.7%	5.9%	6.0%	1.12	2.45
MINT	S\$	2.42	BUY	3.05	6,479	13.8	13.9	14.6	5.7%	5.8%	6.0%	1.30	1.86
KDCREIT	S\$	1.95	BUY	2.40	3,350	9.9	10.0	10.2	5.1%	5.1%	5.3%	1.27	1.33
DCREIT	US\$	1.00	BUY	1.30	1,127		4.4	4.7		4.4%	4.7%	1.14	0.88
Average	Average						5.1%	5.3%	5.5%				

Peer comparison table

Source: DBS Bank estimates

Singapore Data Centre-focused REITs



DBS Bank recommendations are based on an Absolute Total Return* Rating system, defined as follows: STRONG BUY (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame) BUY (>15% total return over the next 12 months for small caps, >10% for large caps) HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps) FULLY VALUED (negative total return, i.e., > -10% over the next 12 months) SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

*Share price appreciation + dividends

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DBS Regional Research Offices

HONG KONG

DBS (Hong Kong) Ltd Contact: Dennis Lam 13th Floor One Island East, 18 Westlands Road, Quarry Bay, Hong Kong Tel: 852 3668 4181 Fax: 852 2521 1812 e-mail: dbsvhk@dbs.com

INDONESIA

PT DBS Vickers Sekuritas (Indonesia) Contact: Maynard Priajaya Arif DBS Bank Tower Ciputra World 1, 32/F Jl. Prof. Dr. Satrio Kav. 3-5 Jakarta 12940, Indonesia Tel: 62 21 3003 4900 Fax: 6221 3003 4943 e-mail: indonesiaresearch@dbs.com

SINGAPORE

DBS Bank Ltd Contact: Paul Yong 12 Marina Boulevard, Marina Bay Financial Centre Tower 3 Singapore 018982 Tel: 65 6878 8888 e-mail: groupresearch@dbs.com Company Regn. No. 196800306E

THAILAND

DBS Vickers Securities (Thailand) Co Ltd

Contact: Chanpen Sirithanarattanakul 989 Siam Piwat Tower Building, 9th, 14th-15th Floor Rama 1 Road, Pathumwan, Bangkok Thailand 10330 Tel. 66 2 857 7831 Fax: 66 2 658 1269 e-mail: research@th.dbs.com Company Regn. No 0105539127012 Securities and Exchange Commission, Thailand