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Infrastructure & Project Finance – China

Infrastructure REITs expand financing channels for infrastructure companies

Infrastructure Real Estate Investment Trusts (Infra REITs) are a new financing model in China designed to support future infrastructure investments and control leverage in the infrastructure sector. The new capital generated from Infra REITs will help address future financing needs for infrastructure expansion to boost economic growth, and provide additional liquidity and deleveraging opportunities for infrastructure companies. That said, the market's development will also face challenges, such as a less efficient tax structure, regulatory issues and uncertainty about the supply of eligible assets.

» **Infra REITs could develop into an important market for infrastructure assets.** We expect the Infra REIT market to remain small for the next 2-3 years but it has the potential to develop into a sizable market for infrastructure assets over the next decade. The first batch of 10 REITs will raise over RMB30 billion.

» **The model allows infrastructure companies to gain additional liquidity for future capital spending and to potentially reduce debt.** Infra REITs allow companies to monetize their existing infrastructure assets and apply the proceeds from their disposal to finance future infrastructure projects or reduce debt.

» **Infra REITs will attract private capital because of their potentially stable and predictable returns.** The assets' operating record and ability to generate positive cash flow will also reduce investment risks for investors. A 4% minimum return requirement for Infra REITs still compares well relatively to China's current treasury yield.

» **REITs are governed under the China Securities Law, which offers protection to Infra REIT investors.** Infra REITs require a due diligence and valuation of the underlying assets. This provides greater transparency of the financial and operating performance of the assets for investors to make their risk assessment and investment decisions.

» **However, development of the Infra REIT market will face multiple challenges**, including a less efficient tax structure, policy actions, uncertainty as to the supply of eligible assets and future extension of concession lives, liens, the untested nature of the market's structure, and secondary market liquidity.

» **Compared to REITs in other jurisdictions, China's Infra REITs have tighter regulations**, in part to avoid potential systemic risks to the capital market. These include tighter leverage ratio requirements, criteria of sector and geographic location of the underlying assets.

Infra REITs will become a new financing model to support infrastructure investments

Attributes of China's Infra REITs

Infrastructure Real Estate Investment Trusts (Infra REITs) are a new financing model in China. They are designed to support future infrastructure investments and economic growth, and provide investment options for the public and deleveraging opportunities for infrastructure companies via asset monetization. We expect Infra REITs will support China's post-COVID infrastructure-led economic recovery and growth.

The circular for Infra REITs were first introduced in April 2020[1], when China's economy started to recover from COVID disruptions.

Under the guidelines published by the China Securities Regulatory Commission (CSRC) in August 2020[2], an Infra REIT is a closed-end, publicly traded infrastructure securities investment fund of which at least 80% of assets are infrastructure asset-backed securities.

Infra REITs will open up a new funding channel for infrastructure investments (Exhibit 1). Unlike traditional bank loans and public-private partnerships, Infra REITs are regarded as a public investment product. Infra REITs are governed under China Securities Law with a set of guidelines and a distribution of not lower than 90% of earnings. Infra REITs are publicly offered, indicating that they are open to individual and institutional investors looking for exposure to public operating infrastructure assets, which are normally 100% state-owned.

Exhibit 1

Summary of key attributes and their implication of a typical Infra REIT

General requirements	Implication
» Closed-end fund (Fund + Infra Asset-Backed Securities)	» Tradable on exchange. Investor receives return from underlying infra. assets via an ABS structure
» Pay out >90% of earnings to investor annually	» Similar to other REITs, Infra REITs will distribute almost all profits after deducting required expenses
» Pay an annual dividend of ≥4%	» This offers recurring and stable cash flows which is higher than treasury yield
» Minimum 20% holding of REITs by originator for at least 5 years	» Retaining ownership of Infra REITs by originator will align interest between investors and originators
Asset requirements	
» >80% of assets are infrastructure-based securities; remainder investing in AAA-bonds, treasury, etc.	» Asset allocation prohibits risky securities and this reduces price volatility
» Asset must be operational for at least 3 years and has generated net cash flows for 3 years	» This substantially reduces construction risks investors face and prohibits PPP in construction phase
» Market-oriented income generation without 3rd party subsidies	» This prohibits projects from having little commercial incentives and relying on government support
» Commercial properties (hotels, office) are excluded	» This avoids property markets from overheating
» Liability to asset ratio should be no more than 28.6% (or asset/equity >140%)	» This limits the leverage and financial risks of Infra REIT investors face
Sector focus	
» New infrastructure: high-tech/5G, AI, IT/communication technology, data centres, teleco	» This reflects government's intention to develop new infrastructure as part of its strategic goals
» Traditional infrastructure: logistics and warehouse, toll road, rail, airport, port, hydropower, gas, heating, sewage treatment	» This offers new opportunity for infrastructure asset owners to monetize investments to reinvest
Regional priority	
» Beijing-Tianjin-Hebei Area; Xiongan New Area; Yangtze River Economic Zone; Greater Bay Area; Yangtze River Delta; Haian Free Trade Port	» Priority goes to strategically important regions and those economically developed areas will likely have more and higher quality projects eligible for Infra REITs

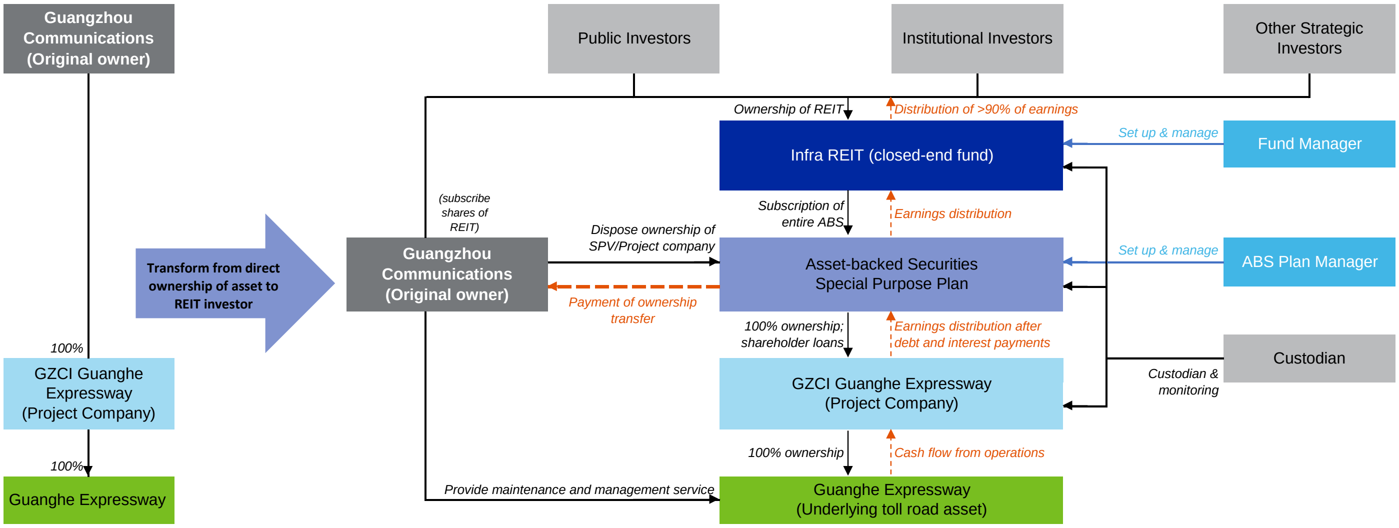
Sources: China Securities Regulatory Commission (CSRC), National Development Regulatory Commission (NDRC), Moody's Investors Service

By establishing an Infra REIT, an infrastructure company will effectively become a sponsor in the REIT and likely a service provider to maintain the assets rather than being the asset owner (Exhibit 2).

The infrastructure company can structure eligible infrastructure assets into an Infra REIT by disposing the assets into a project company or private equity group and using the disposal proceeds to repay debt or fund its other infrastructure opportunities, including “new infrastructure” such as 5G, IT and communications technology.

Exhibit 2

A typical structure of an Infra REIT in China, using the Guanghe expressway project as an example



Sources: Shenzhen Stock Exchange, Infra REIT prospectus, Moody's Investors Service

Infra REITs could develop into an important market for infrastructure assets

While we expect the Infra REIT market to remain small for the next 2-3 years, it has the potential to develop into a large market for infrastructure assets over the next decade.

The first batch of nine of 10 REITs have received approvals for listing and are ready for listing from their respective stock exchanges. They cover multiple sectors including toll roads, warehouses and waste-to-energy, which aligns with the guidelines. The total amount of funds raised by the first batch is over RMB30 billion (about 50% from toll road assets) (Exhibit 3).

Exhibit 3

First batch of Infra REITs in China amounts to over RMB30 billion

	Underlying asset background			Fund Details					
#	Fund name#	Sector	Region	Valuation (RMB million)	Expected fund raising^ (RMB million)	Actual fund raising^^ (RMB million)	Expected yield (2021)	Expected yield (2022)	Maturity
1	China Aviation Shougang Biomass	Waste to energy	Beijing	1,206	1,249	1,338	8.88%	8.32%	21
2	Bosera China Merchants Shekou Industrial Park	Industrial park	Shenzhen	2,528	2,230	2,079	4.10%	4.17%	50
3	PingAn Guangzhou Communications Guanghe Expressway	Toll road	Guangzhou	9,674	8,700	9,114	6.19%	7.20%	99
4	Red Earth Innovation Yantian Port Warehouse Logistics	Logistics & warehouse	Shenzhen	1,705	1,705	1,840	4.47%	4.75%	36*
5	Zheshang Securities Zhejiang Expressway	Toll road	Zhejiang	4,130	4,135	4,360	12.34%	11.00%	20
6	HuaAn Zhangjiang China Everbright	Industrial park	Shanghai	1,470	1,470	1,495	4.74%	4.11%	20
7	SooChow Suzhou Industrial Park	Industrial park	Suzhou	3,350	3,350	3,492	4.50%	4.54%	40
8	CICC GLP Warehouse Logistics	Logistics & warehouse	Various**	5,346	5,618	5,835	4.45%	4.48%	50
9	Fullgoal Beijing Capital Co	Water utilities	Shenzhen, Hefei	1,746	1,836	1,850	8.71%	9.13%	26*
10	Gfund China Railway Chongqing Yusui Expressway***	Toll road	Chongqing	4,573	4,573	-	8.20%	8.40%	15
					34,865	31,403			

#Short form translation from Chinese names | ****Beijing, Yangtze River Delta Area, Greater Bay Area* | **Derived from the disclosed maturity date of the fund*

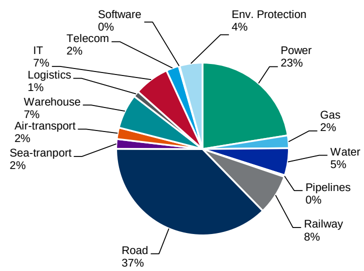
****Has not been approved* | *^From propectuses* | *^^From respective stockexchanges announcement*

Sources: Shanghai Stock Exchange, Shenzhen Stock Exchange, Prospectuses, Moody's Investors Service

Based on 2015-2020 fixed-asset investments (FAI) in strategic sectors covered by the REIT guidelines, we estimate that the current available value of eligible infrastructure assets for Infra REITs across the mainland is around RMB52 trillion, of which 44% is toll roads and railways, and 25% from power and gas sectors (Exhibit 4).

The actual value will be smaller than RMB52 trillion over the next decade because some infrastructure assets may not be able to support the distribution requirement for 4% returns of the REIT under the guidelines and the current pilot is only open to strategic regions such as the Greater Bay Area. That said, assuming around 5%-10% of those assets would become Infra REITs in the next 10 years, the size of the market could grow to over RMB2 trillion. The actual size will depend on the government's commitment to develop this market along with the private sector investment appetite.

Exhibit 4
Size of new FAI in China by sector (2015-2020)
Size = RMB52 trillion



Sources: WIND, National Bureau of Statistics of China, Moody's Investors Service

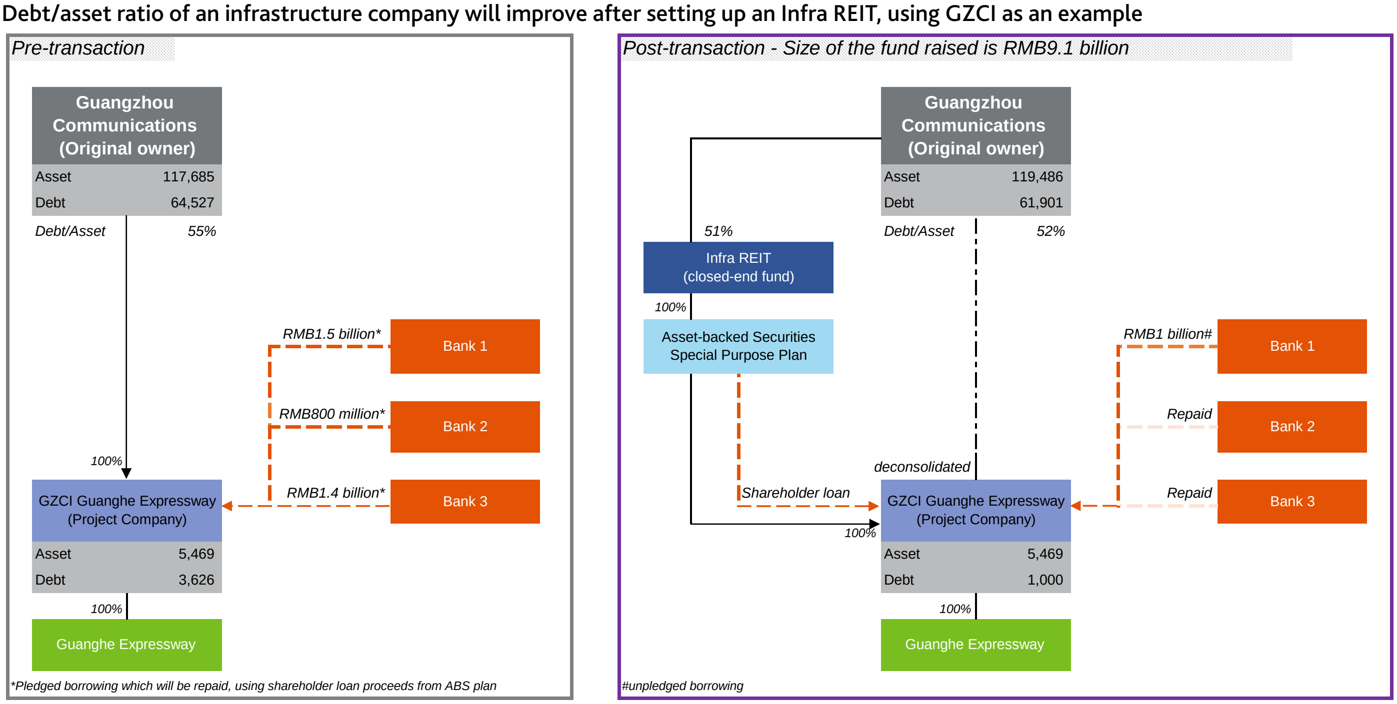
Additional liquidity and deleveraging opportunities for rated issuers, a credit positive

Infra REITs will provide infrastructure companies with additional liquidity for future capital spending and to potentially reduce debt, a credit positive.

The model allows infrastructure companies, especially state-owned enterprises, to monetize their existing infrastructure assets and apply the proceeds from disposal of the assets to finance future infrastructure projects. Selectively listing their individual illiquid assets will realize the market value of state-owned assets and provide liquidity to the sponsor.

As an example, Guangzhou Communications Investment Group (GZCI Baa2 stable) would reduce its debt immediately after spinning off GZCI Guanghe Expressway into an Infra REIT because part of the proceeds raised in the Infra REIT are used to reduce debt at the project company (around RMB2.7 billion), resulting in an improvement in its debt/asset ratio to 52% from 55% (Exhibit 5).

Exhibit 5
Debt/asset ratio of an infrastructure company will improve after setting up an Infra REIT, using GZCI as an example



Sources: Shenzhen Stock Exchange, Infra REIT Prospectus, Company, Moody's Investors Service

GZCI subscribed to 51% of the REIT and maintains majority ownership of the infrastructure asset. The company has now become an investor, allowing the company to capture distribution from the REIT in the long term. GZCI's Infra REIT is the largest within the first batch in terms of actual amount raised (RMB9.1 billion), according to announcements in stock exchanges.

GZCI also plans to use the remaining proceeds (estimated at around RMB2 billion) to support toll road investments in the Greater Bay Area, which aligns with national strategy.

Generally, the respective infrastructure company will normally become the manager of the underlying asset to provide maintenance services and then receive management fees within the REIT structure, given its expertise and know-how about the project's operations. This provides additional cash sources for rated issuers.

Additionally, the underlying assets and project debt will potentially be deconsolidated from the original asset owner's balance sheet after spinning off the project into the Infra REIT, depending on the level of ownership retained by the asset owning company.

While we believe Infra REITs bring multiple benefits to an infrastructure company, it will not always result in an improvement in credit quality as this depends on how the company uses the additional liquidity. For example, the disposal of very high-quality assets, which could be a debt-free cash generator, will likely weaken the company's post-transaction financial metrics. If the company decides to recycle the disposal proceeds for high risk investments but not to reduce debt, there would be limited improvement in its credit quality.

Infra REITs will attract investors because of potentially stable returns and regulations offering good investor protection

Infra REITs will be appealing to the private sector

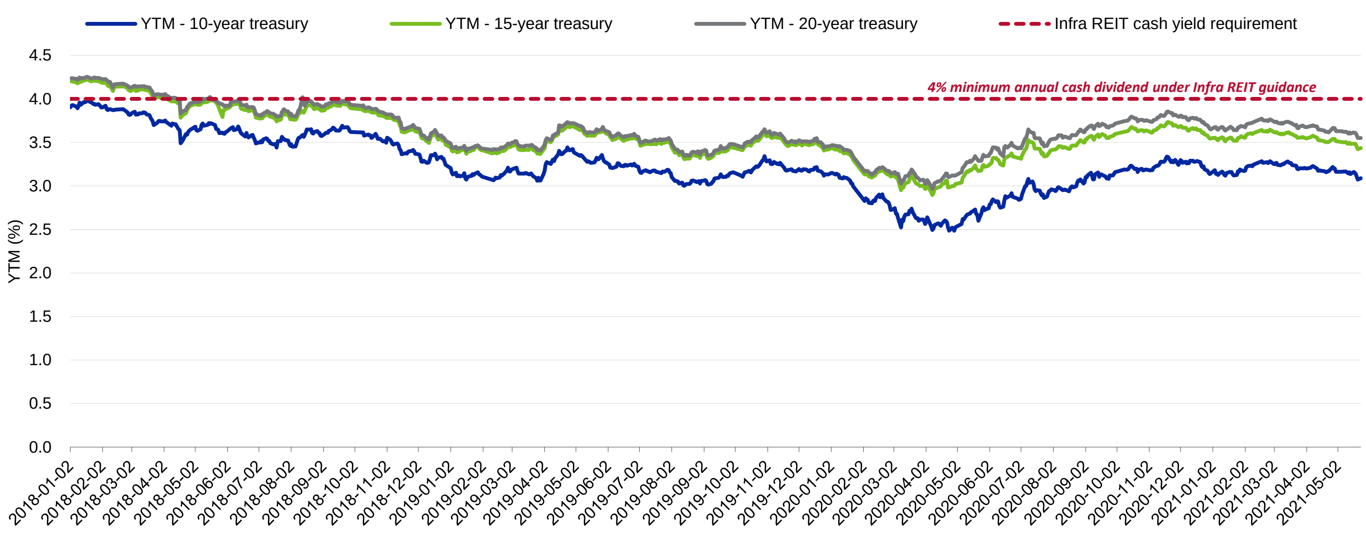
Infra REITs are likely to be appealing to the private sector because of their potentially stable and predictable returns. The assets have an operating history and their ability to generate positive cash flow will also reduce investment risks for investors.

While the 4% minimum return requirement for Infra REITs is not high compared to other investments, it still compares well relative to China's treasury yield (currently in the low 3% range for a 10-year bond) (Exhibit 6).

Moreover, the long tenor of Infra REITs (at least 15 years for the first batch) will provide investors with a new asset class for portfolio allocation and diversification, as compared to other short-term domestic corporate bonds.

Exhibit 6

Infra REITs' minimum expected cash yield of 4% is higher than the treasury yield



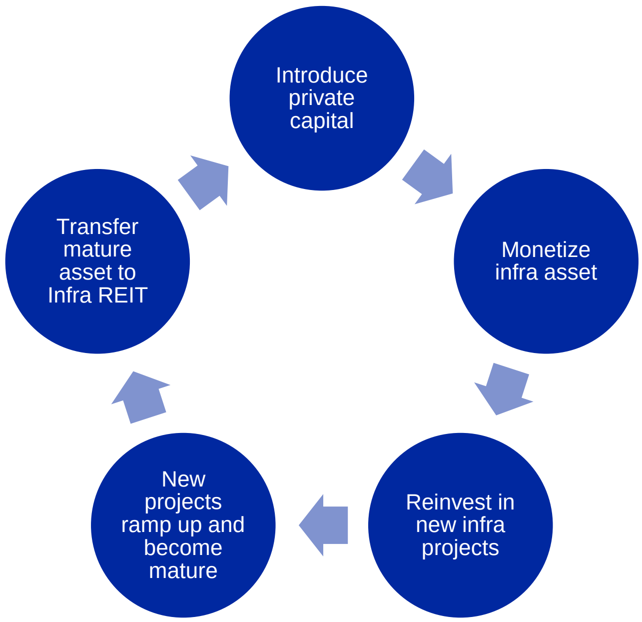
Sources: WIND, Moody's Investors Service

We also expect Infra REITs will help address future financing needs for infrastructure expansion to help support the future economic growth of China (Exhibit 7).

Infra REITs will be able to adopt a market-oriented approach to supplying new capital to the market. At the same time, they release the market value of existing infrastructure assets – which are generally recognized at book value on a state-owned enterprise's balance sheet – by listing them.

This new capital will support China's large infrastructure expansion pipeline in the 14th five-year plan and beyond, covering transportation, water utilities and conservancy to urban construction, as well as new infrastructures.

Exhibit 7
Infra REITs will fuel capital to support future infrastructure expansion



Source: Moody's Investors Service

Regulations provide protection for investors

Infra REITs are governed under the China Securities Law, which we expect will provide protection for investors.

Infra REITs require a comprehensive due diligence and valuation of the underlying assets. This will provide greater transparency about the financial and operating performance of the assets for investors to make their risk assessment and investment decisions.

According to the Infra REIT prospectus, the fund manager is required to provide regular public disclosure post-listing and notice of any reportable events such as a substantial loss in earnings or cash flow.

The original asset owner is required to retain at least 20% of the REIT for at least five years after listing, thereby ensuring there is no total "walkaway" option for the asset owner to simply dispose of nonperforming assets. Instead, the interests of the investors and the original asset owners are likely to be aligned.

The total assets of an Infra REIT cannot exceed 140% of its equity (i.e., liabilities cannot exceed 28.6% of assets). This limits the fund manager's ability to increase leverage or acquire new potentially more risky assets and protect investors' stable cash distribution. Moreover, the fund manager is required to report to the CSRC if it breaches the asset-to-equity ratio.

Registration of an Infra REIT has certain requirements on the asset(s), including three years of operating performance and the ability to generate positive cash flow. This means investors will unlikely face material construction risks as the assets have passed the construction phase and the investor will be able to assess the performance record.

Potential challenges to the development of the Infra REIT market

Development of the Infra REIT market may face several challenges, including a potentially less efficient tax structure, an evolving policy regime, uncertainty about the supply of eligible assets and future extension of concession lives, liens, the untested nature of the market's structure, and secondary market liquidity.

» *Less efficient tax:* The current tax structure, including taxation on asset transfer, profit from operations and asset appreciation, will result in double-taxation when structuring a REIT.

» *Evolving policy regime:* Infrastructure is highly linked to Chinese government policy initiatives, for example implementing a toll-free period last year during COVID. Policy changes that result in weakening performance of underlying assets will negatively affect the expected returns of REITs.

» *Uncertainty in supply of eligible assets:* A lot of infrastructure in China is handled by local government financing vehicles (LGFV), which have little commercial considerations and some may not be commercially viable. This implies a number of assets will not be eligible for Infra REITs as they may not reach the annual cash yield requirement of 4%.

» *Uncertainty about the fund at maturity:* There is uncertainty about how/whether the concession of infrastructure asset will be extended, given limited track record. This also means the return and trading liquidity of a REIT may reduce over time.

» *Liens:* Secured bank loans are common in infrastructure funding and releasing liens and collateral during asset transfer will require creditors' consent, which may complicate the structuring process of an Infra REIT.

» *Untested structure:* Development of the market is still at an early stage and this new financing model may be refined by the regulator after assessing the performance of the pilot batch of Infra REITs.

» *Secondary market liquidity:* An Infra REIT is a closed-end fund and the liquidity comes from the trading of its shares on an exchange, which may not be active and investors may need to hold them to maturity.

Infra REITs have unique features compared with other REITs in different jurisdictions

Compared to REITs in other jurisdictions, China's Infra REITs have tighter regulations, reflecting the regulator's careful consideration in launching the new instrument. For example, REITs in Hong Kong and Singapore do not require asset ownership requirements and the leverage ratio is higher (50% of gross asset value for REITs in Hong Kong and in Singapore) than China's Infra REITs (28.6% liability to asset ratio).

According to the guidelines of the pilot, China's Infra REITs have certain requirements in terms of the geographic location and nature of assets, which are generally not specified in the regulations of REITs in Hong Kong and Singapore.

Exhibit 8

Comparison of characteristics between REITs in different jurisdictions

	China Infra REITs	Hong Kong REITs	Singapore REITs
Legal structure	Fund + Asset-backed Securities (ABS)	Unit trust	Unit trust (can be listed or unlisted)
Minimum offering size	At least RMB200 million	Not specified	At least SGD300 million
Underlying asset	>80% in ABS (backed by infra. assets); AAA securities and money market instruments	>75% in income-generating real-estate	>75% in income-generating real-estate
Annual distribution	>90% of distirbutable profits	>90% of annual net income after tax	>90% of annual taxable income
Geographic location	Six strategic regions	No restrictions on foreign assets	No restrictions on foreign assets
Nature of underlying assets	Specific infrastructure industries	Real estate that generates recurrent rental income at all times	Incoming producing real estate
Ownership retained by originator	At least 20% for at least five years after IPO	Not specified	Not specified
Borrowing limit	28.6% (Total liability to total asset value)	50% of gross asset value	50% of deposited real estate
Governing law	China, listing rules of Shenzhen or Shanghai Stock Exchanges	Listing rules of Hong Kong Stock Exchange	Singapore, under Collective Investment Scheme regime
Example	GZCI Guanghe Expressway Fund	Link Real Estate Investment Trust (A2 stable)	Hutchison Port Holdings Trust (Baa1 stable)

Sources: Securities & Futures Commission of Hong Kong, CSRC, Baker Mckenzie, Moody's Investors Service

Moody's related publications

Sector in-depth

Fixed-Asset Investment Chartbook 2021, 17 May 2021

Growth of Asian infrastructure companies will strengthen in 2021 but pace will vary, 22 March 2021

Five-Year Plan highlights cautious balance between growth, risks and stability, 15 March 2021

Policy support for infrastructure investment will aid economic recovery, 28 September 2020

Endnotes

1 Joint circular on the Infra REITs pilot program (Circular#40), NDRC and CSRC, April 2020

2 Guidance (pilot) of Public Offering of Infrastructure Securities Investment Fund (#54), CSRC, August 2020

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