



Fork In The Road

China's Listed Toll-Road Operators To Choose Between Costly Investments Or Losing Out

S&P Global
Ratings

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This report does not constitute a rating action

Key Takeaways

- China's 22 listed toll-road operators face big changes and tough decisions in the next 10 years.
- **Concessions will expire for a material portion of toll road assets over the next decade.** This will significantly reduce revenues unless the listed operators can renew the concessions through expansion projects (e.g., road widening with extra lanes to existing assets).
- However, land costs have soared over the decades since the original concessions were granted. This and much higher construction costs could drag on investment returns for toll-road projects.
- By our estimates, it would **take an average of 28 years of toll revenue to recoup investment costs**, barring any tariff or traffic increment. This is based on data showing **median expansion construction costs of about Chinese renminbi (RMB) 163 million per kilometer (km)**, versus the reported median annual toll of RMB5.75 million per km in 2022 for the 22 listed toll road operators in China.
- Without large hikes in tariffs, projects won't have the same returns as existing roads. We expect the **financials of listed toll road companies will weaken if they commit to the debt-heavy investments over the next decade.**
- Alternatively, failure to extend concessions of their major toll road assets will lead to material revenue drops.

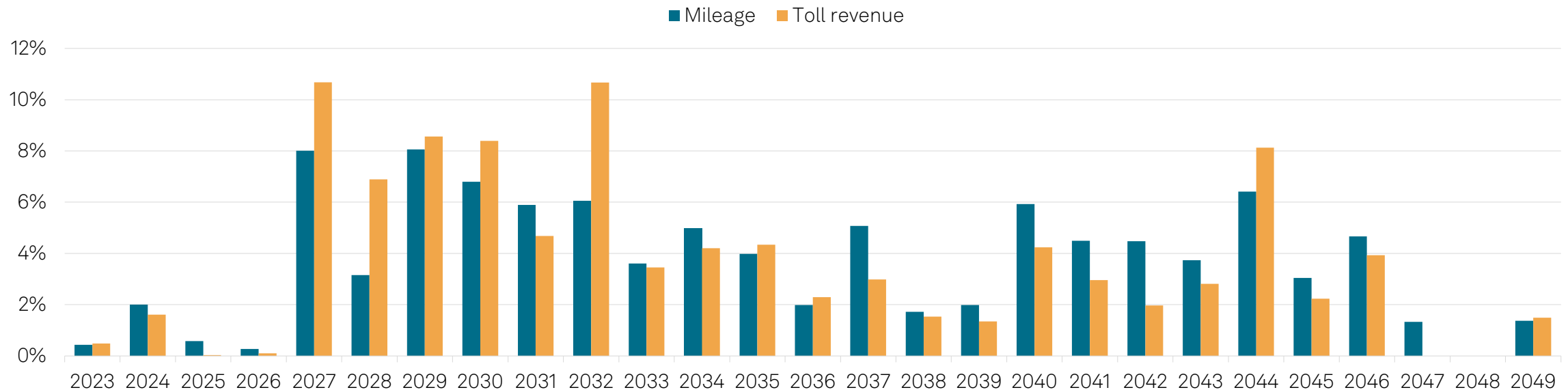
Scope of this research

- We examined the operations of 22 listed China toll-road operators based on their financial filings, company announcements and expiry timeframes for their concessions. See appendix on slide 11 for the list of 22 companies, of which two are rated by S&P Global Ratings.
- These companies together invest in over 11,000 kilometers (km) of toll roads in China, including assets with controlling and non-controlling stakes. We estimate that 5,000 km in toll-road concessions will expire over the next decade.
- We also collected relevant information on domestic bond issuance and pricing for infrastructure-REIT unit trusts in China. As of end February 2024, these toll road operators had listed a total of eight infrastructure-REITs in China.
- In addition, this research incorporates information on expressway expansions that are in progress or completed over the last two years. In total, we collected about 60 data points from listed and unlisted operators in China.
- Our sensitivity analysis on the financial impact of expansion for the 22 operators has the following parameters:
 - Timeframe: The next three years.
 - Project breadth: 1,000 km roll-road expansion work. This is for illustrative purposes, not based on forecasts on expansion momentum. That said, we expect some of the expiring 5,000 km in toll road concessions will be handed back to the government rather than expanded.

Expiry Clock Is Ticking But Some Toll-Road Renewals Remain Uncertain

- A wave (by revenue) of toll-road concessions will expire before 2033. These are mainly high-revenue toll roads that commenced operations in the early 2000s.
- Investment decisions are pending draft regulations to set concession terms; these terms will ultimately drive investment return rates. Raising tariff or extending concessions beyond 25 years could support a better return on expansion projects.

Concession expiry is peaking between 2027 and 2032

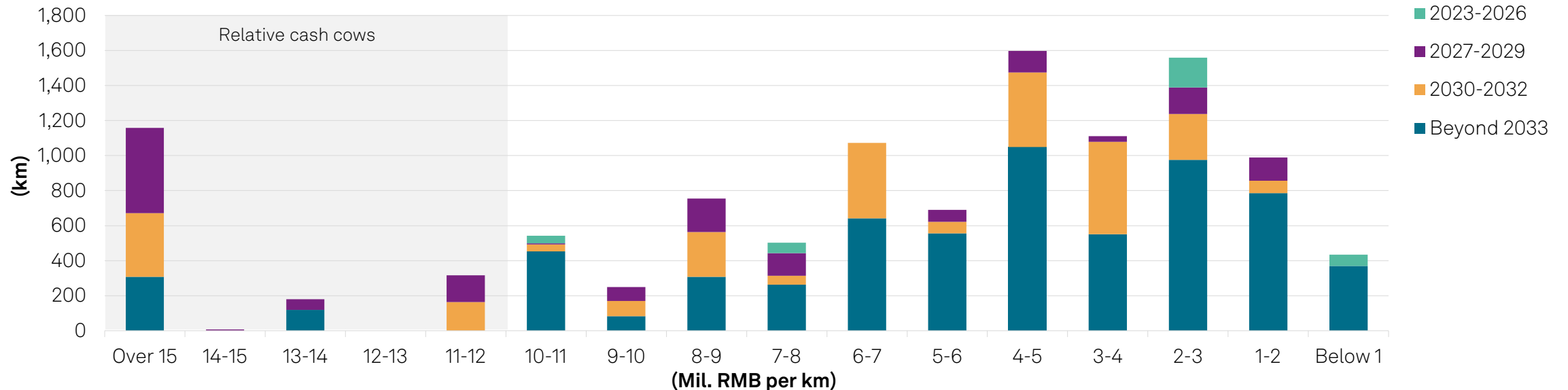


As of end-2022 with total over 11,000 km toll road, including assets with controlling and non-controlling stakes. Source: Company disclosures, S&P Global Ratings.

A Number Of 'Cash Cow' Concessions Will Expire Over The Next Decade

- **By revenue**, high-earning toll roads have a significant portion of concessions expiring before 2033. The operators will have to return the assets to the government's operation unless they reinvest into the projects through expansion.
- **By length**, the majority (about 80%) of franchise toll roads generate annual revenue per km of below RMB10 million. It will be even harder for these ones to reach return hurdles, even if concessions are extended for 25 or 30 years.

Vast majority of franchise toll roads earns less than RMB10 million of annual unit revenue

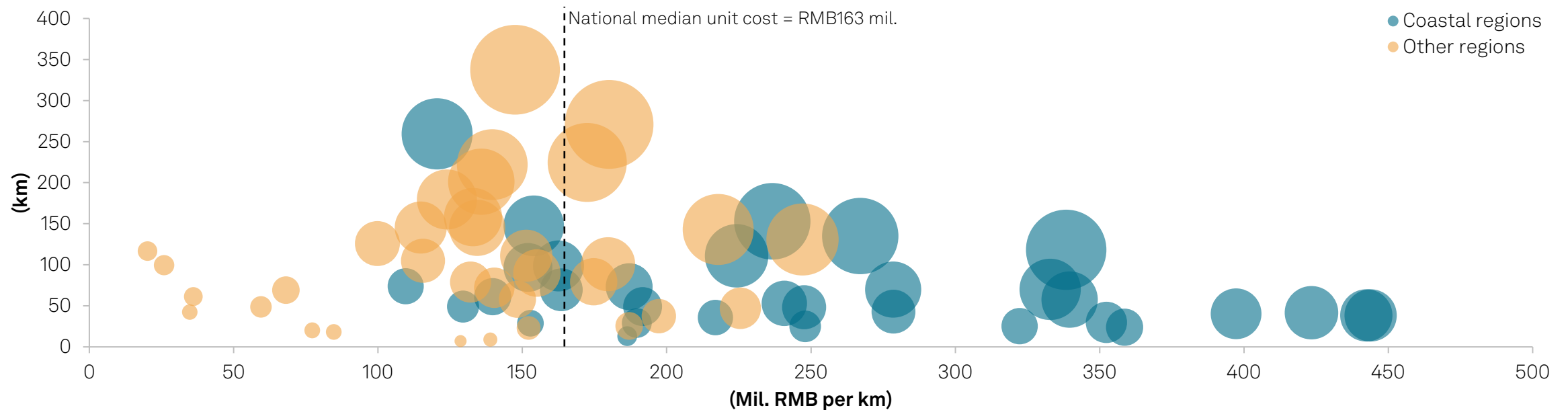


As of end-2022. Source: Company disclosures, S&P Global Ratings.

Expansion Costs Vary Significantly Between Regions

- Coastal regions have a median unit cost of about RMB240 million per km for expansion projects, compared with RMB140 million for other regions. The national median is RMB163 million, by our estimates.
- Land costs have soared since the last concessions, especially in populous coastal regions. Complex geographical conditions and construction work could also lead to rocketing construction costs.

Unit construction cost of announced expansion projects is higher in China's coastal regions



Bubble size represents the total investment costs of each expansion project based on company or media disclosures. Data includes projects completed or to be completed after 2022. Source: Internets, S&P Global Ratings.

Investment In Toll Road Expansion Would Likely Raise Financial Leverage

Our three-year scenarios on construction costs indicate expansions would require large outlays

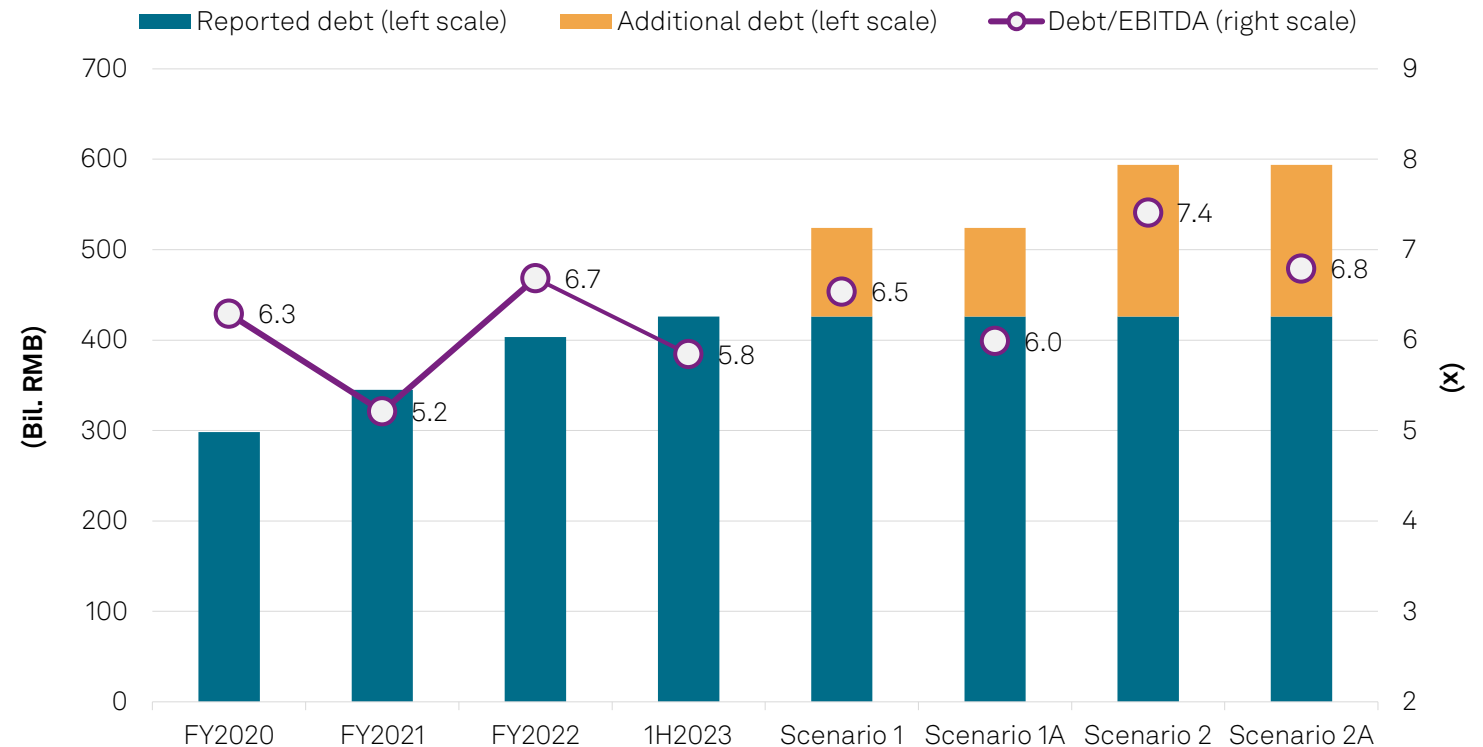
Assuming project expansions of 1,000 km over the next three years, leverage would rise even if overall EBITDA jumps 20%:

- Scenario 1: Expansion costs RMB140mil per km; 10% increase in EBITDA.
- Scenario 1A: Expansion costs RMB140mil per km; 20% increase in EBITDA.
- Scenario 2: Expansion costs RMB240mil per km; 10% increase in EBITDA.
- Scenario 2A: Expansion costs RMB240mil per km; 20% increase in EBITDA.

Key assumptions:

- Funded on 30% equity / 70% debt;
- Our estimates on expansion costs are based on projects conducted in recent years;
- The incremental 10% and 20% EBITDA reflect (1) varying overall EBITDA growth for the 22 operators over the next three years; and (2) the slightly low base in 1H 2023.

Leverage scenarios vary depending on expansion cost and toll revenue growth



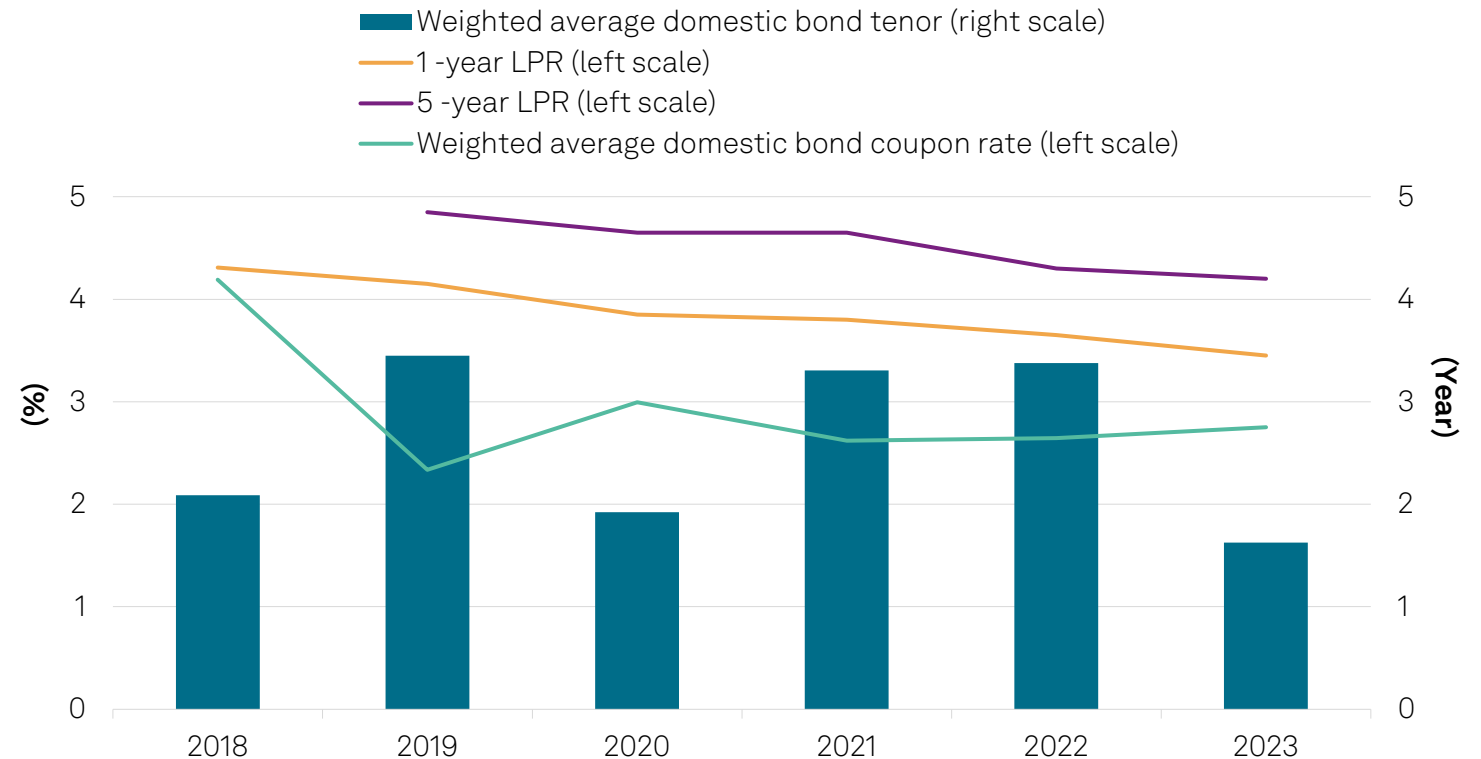
1H2023 EBITDA is annualized for the illustrative purposes. Source: Company annual reports, S&P Global Ratings.

One Upside: The Low Interest Rate Environment

Financing costs have moderated—for now

- The coupon rates on bonds issued by listed toll road companies have declined over time along with China's loan prime rate (LPR).
- Nonetheless, given these are long-term investments, financing costs could get costlier down the line.
- We expect listed toll road companies to manage their capital structure well, should indicators point to a likely turn in the rate cycle.
- At any rate, the majority of toll road financing is through long-term bank loans, which could help cushion against interest rate and refinancing risks in the bond market.

The listed toll-road operators have benefited from lower China rates

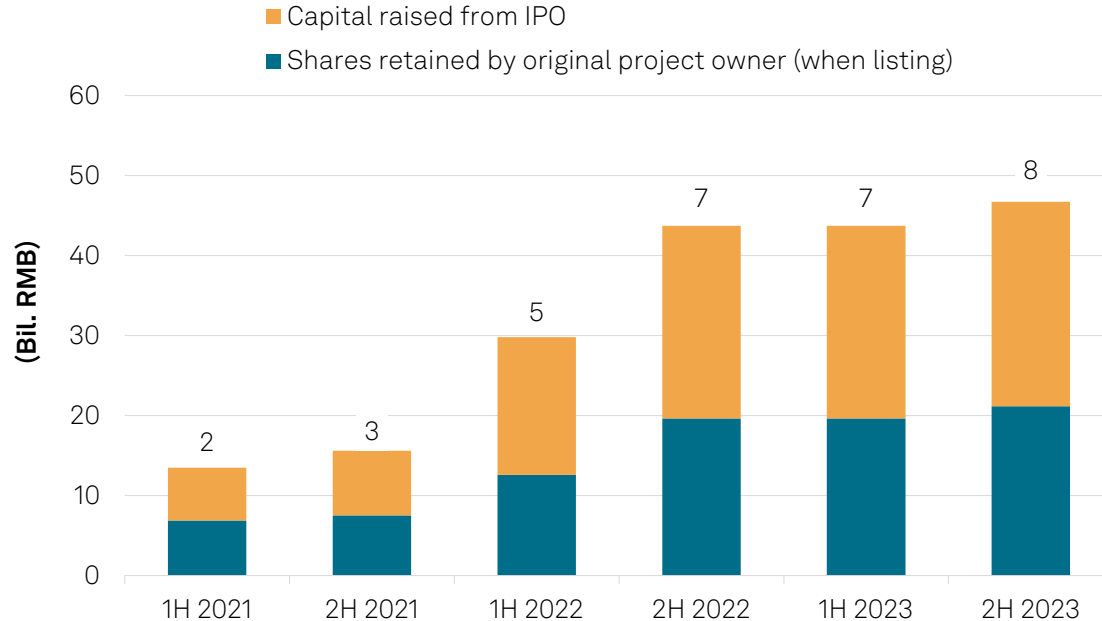


LPR--loan prime rate in China. Data in chart refer to domestic bond issued by the listed toll road operators in China, excluding the short-term issuance mature within the same calendar year. Source: Wind, S&P Global Ratings.

REITs Provide An Alternative Financing Channel For Toll Road Operators

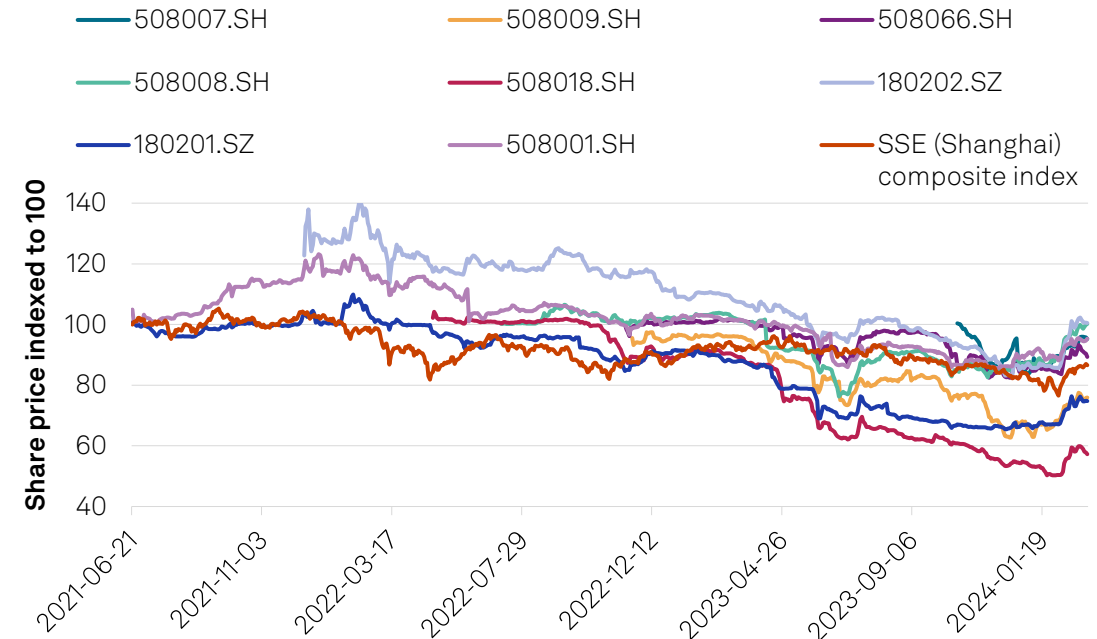
- REITs listings could recycle capital from mature toll roads in favor of expansion investments. However, equity market volatility and a lack of quality underlying assets remain barriers for toll road REITs.
- In our view, debt funding will remain the key financing source for toll road companies.

Over RMB25 billion of equity raised from REITs and likely more to come, but still insignificant for investment needs



Numbers on top of bars refer to the accumulated number of REIT listed by the end of each period. Source: Wind, S&P Global Ratings.

Share price performance of toll road REITs may hold back investor appetite

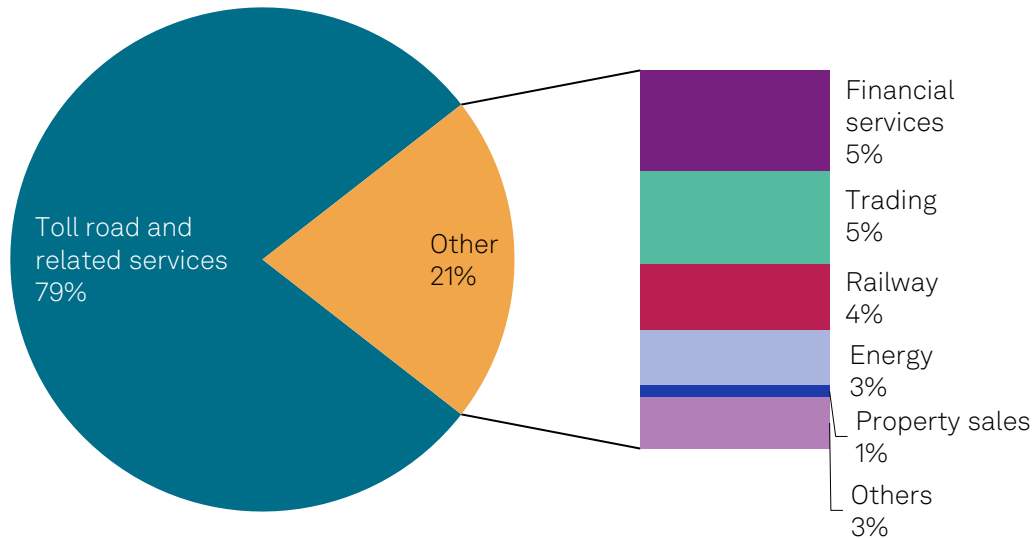


REIT unit price indexed to 100 as of listed price. For list of infrastructure REITs matching corresponding to the stock codes, please refer to appendix. Source: Wind, S&P Global Ratings.

We Expect The Expansion Into Non-Toll Road Businesses Will Wane

- After several years of investments in a range of different businesses, investment in non-toll road businesses will likely become more selective over the next few years. Acquisitions could become more active as quality assets become sought-after.
- The 22 listed operators will likely focus spending on toll road construction or expansion projects to replenish and extend their toll road assets.

Toll collections remain the major revenue source for listed toll road operators



Data shows to the revenue breakdown of first-half 2023. Trading include petroleum product sales. Source: Company disclosures, S&P Global Ratings.

Cross-province toll road investment may expand selectively

- 5 listed toll road operators* invested outside of home provinces
- 8 provinces welcomed investors from other provinces*
- 15 listed toll road companies invested by China Merchant Expressway Network and Technology Holdings Co. Ltd.

*Refers to investment with controlling shares only and not including China Merchant Expressway Network and Technologies Holdings Co. Ltd. Source: Company disclosures, S&P Global Ratings.

Appendix 1 | List Of 22 Selected China's Listed Toll Road Companies

Company	Key operating areas (Toll highway)	Company	Key operating areas (Toll highway)
Anhui Expressway Co. Ltd.	Anhui	Hubei Chutian Expressway Co. Ltd.	Hubei
China Merchants Expressway Network & Technology Holdings Co. Ltd.	Multiple cities/provinces	Jiangsu Expressway Co. Ltd.	Jiangsu
Chengdu Expressway Co. Ltd.	Chengdu City	Jiangxi Ganyue Expressway Co. Ltd.	Jiangxi
Chongqing Road & Bridge Co. Ltd.	Chongqing	Jilin Expressway Co. Ltd.	Jilin
Dongguan Development (Holdings) Co. Ltd.	Guangdong	Shandong Hi-speed Co. Ltd.	Shandong
Fujian Expressway Development Co. Ltd.	Fujian	Shanxi Road & Bridge Co. Ltd.	Shanxi
Guangdong Provincial Expressway Development Co. Ltd.	Guangdong	Shenzhen Expressway Co. Ltd. (BBB/stable/--)	Shenzhen, Guangdong, Hunan
Guangxi Wuzhou Communications Co. Ltd.	Guangxi	Sichuan Expressway Co. Ltd.	Sichuan
Heilongjiang Transport Development Co. Ltd.	Heilongjiang	Xiandai Investment Co. Ltd.	Hunan
Hunan Expressway Investment Group Co. Ltd.	Hunan	Yuexiu Transport Infrastructure Ltd.	Multiple cities/provinces
Henan Zhongyuan Expressway Co. Ltd.	Henan	Zhejiang Expressway Co. Ltd. (A/Stable/--)	Zhejiang

Appendix 2 | List Of China's Listed Toll Road REITs

Stock code	Listing date	REIT
508007.SH	Oct. 2023	CICC Shangao Group Expressway Close-end Infrastructure Fund
508009.SH	Nov. 2022	CICC Anhui Traffic Control Expressway Close-end Infrastructure Fund
508066.SH	Nov. 2022	Huatai Zijin Jiangsu Traffic Control Expressway Close-end Infrastructure Fund
508008.SH	Jun. 2022	Guojin CRCC Chongqing Suiyu Expressway Close-end Infrastructure Fund
508018.SH	Apr. 2022	Huaxia China Jiaojian Expressway Close-end Infrastructure Fund
180202.SZ	Dec. 2021	China Yuexiu Expressway Close-End Infrastructure Fund
180201.SZ	Jun. 2021	Ping An Guangzhou Comm Invest Guanghe Expressway Close-end Infrastructure Fund
508001.SH	Jun. 2021	Zheshang Securities Zhejiang Expressway Close-end Infrastructure Fund

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