Economic Society and Humanities Vol. 2 No. 9, 2025

Analysis and Forecast of Debt Capacity of China Urban Investment Corporation

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Abstract: Escalating debt has pushed China's Urban Investment Companies (UICs) into a peak repayment cycle. Left unchecked, the resulting strains could destabilise the financial system. Using comparative financial data, this study benchmarks UICs' debt tolerance and clarifies the market signals that guide engineering firms. Municipal-engineering outperform their counterparts in power, port and general infrastructure segments.

Keywords: Urban Investment Corporation; Fund Management; Debt Repayment Pressure; Debt Capacity

1. Introduction

In the early 1990s the State Council severed government from enterprise, spawning local urban-investment vehicles to fund infrastructure. [2] Three decades of rapid urbanisation have since driven current liabilties to repayment peaks. Policy steers all four UIC segments, yet each evolves differently: power engineering liabilities swell with relentless capex; port engineering current obligations mirror cyclical expansion under regional strategies; general infrastructure shows widening scale and growth gaps; municipal engineering is sharply tiered, reflecting divergent strategies. Despite extensive theoretical work on capital structure and solvency, empirical evidence on UICs remains scarce.

2. Basic Theory and Literature Analysis

Debt serves as a corporate governance tool that mitigates conflicts of interest between shareholders and managers, thereby averting scenarios of excessive or insufficient investment. Debt disciplines managers, aligning investment with shareholder interests; by constraining cash flow, it curbs both over- and under-investment, while liquidity determines the speed of response.Moreover, a company's liquidity directly impacts its investment behavior.

The core characterization of a company's short-term debt repayment ability is the ability of current assets to cover current liabilities. [5]This indicator is a key parameter for evaluating the financial robustness of a company. Strong liquidity ensures prompt payment and stable finances; weak repayment capacity compels costly emergency funding, disrupting operations. Current liabilities and current ratios are regarded as indicators for judging short-term debt repayment capabilities. The current ratio is the quotient of current assets divided by current liabilities, which reflects the ability of an enterprise to use short-term realizable assets to repay current liabilities. Current liabilities, as an absolute indicator, measure the parallel relationship between asset and capital operation efficiency, and current ratio as a relative indicator, measure the relative size of each research target liability.[1] There are significant preference differences among different stakeholders: creditors tend to have higher current ratios or quick ratios, which strengthen debt protection; corporate management believes that excessively high ratios may lead to a decrease in working capital efficiency and limit the company's strategic investment capabilities. The current ratio above 2 times is considered to be relatively stable. [4]This standard balances the dialectical relationship between debt repayment security and capital operation efficiency.

3. Date Collection and Analysis

3.1 Sample Selection and Data Sources

The research data are all from RuiSi Chinese database.[3] The financial data of 11 representative urban investment companies in four aspects of engineering industry, namely power engineering, port engineering,

infrastructure construction engineering and municipal engineering, are selected for analysis. The data involved are current liabilities and current ratio. Representative companies of electric power engineering include Beijing Jingneng Electric Power Co., Ltd., Guangdong Province Construction Engineering Group Co., Ltd., Guangzhou Development Group Co., Ltd. and SDIC Electric Power Holding Co., Ltd.; representative companies of port engineering include Beibu Gulf Port Co., Ltd. and Xiamen Port Development Co., Ltd.; representative companies of infrastructure construction engineering include Bohai Water Industry Co., Ltd. and Chongqing Water Affairs Group Co., Ltd.; In terms of municipal engineering, there are Guangdong Province Expressway Development Co., Ltd., Bohai Water Industry Co., Ltd. and Sichuan Road and Bridge Construction Group Co., Ltd.

3.2 Statistical Results and Analysis

This paper analyzes the current liabilities of 11 urban investment companies in China, measures the current liabilities index, and makes a detailed dynamic analysis broken line chart of the debt situation of urban investment companies with time. As shown below:

Analysis of Figures 1 and2 indicates that the current liabilities of the four power companies generally exhibited slow growth from 2010 to 2022, followed by a significant increase post-2022.Power-sector UICs expanded liabilities slowly until 2022, then surged. Guangdong Construction Engineering led the post-2022 spike; Beijing Jingneng recorded the smallest increase, even dipping slightly.SDIC Power, a central SOE, runs a scale-first model: liabilities jumped from RMB 22.8 bn to 44.7 bn over 2010-2022 while the current ratio hovered near 0.5; post-2022, liabilities kept climbing and the ratio fell further, signalling thinning margins and rising rollover risk.Guangzhou Development, a local SOE, added only ~RMB 15 bn in 2010-2022 and kept its ratio ≈ 1.0. After a RMB 3 bn rise in 2022-2024 the ratio eased from 0.84 to 0.70—still the highest in the group—confirming disciplined leverage and ample liquidity.Guangdong Construction Engineering's post-2022 liability surge was offset by a stable ratio, implying crisis-driven refinancing. Beijing Jingneng added ~RMB 20 bn over 2010-2024 with the ratio locked near 0.5, reflecting policy-constrained coal-power adjustments.Guangzhou Development ends with the lowest liabilities and strongest ratio, evidencing the soundest financial position among the four.

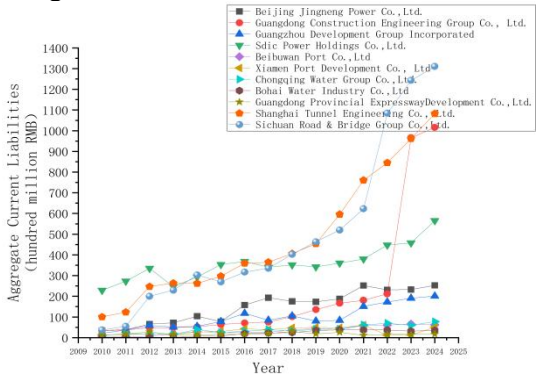

Figure1. Current Liabilities

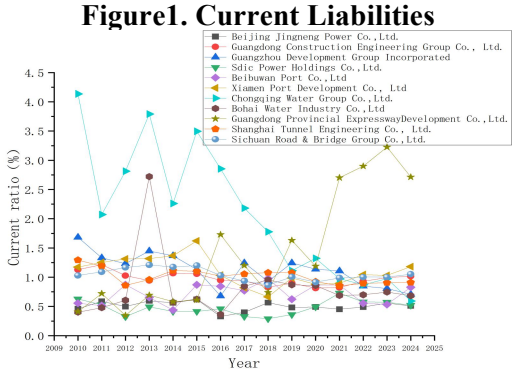

Figure 2. Current Ratio

Figures 1and Figures2 summarise the port UICs. Both firms expanded current liabilities briskly, yet absolute current liabilities remains moderate and ratios oscillate markedly.Xiamen Port: liabilities leapt from RMB 1.3 bn (2010) to 4.2 bn (2016) while the ratio stayed >1.0; climbed further to 6.0 bn (2021) with the ratio sliding to 0.66; dropped to 1.1 bn (2022) then rebounded to 5.0 bn (2024), the ratio recovering above 1.0—evidence of active balance-sheet restructuring.Beibu Gulf Port: liabilities rose from RMB 0.3 bn (2010) to 2.8 bn (2014), stabilising near 2.4 bn through 2016; accelerated to 6.6 bn (2023) while the ratio dipped to 0.53, signalling rollover pressure typical of capital-heavy, short-debt-dependent operations.Despite higher headline liabilities, Xiamen Port's superior ratio indicates firmer liquidity. Port UICs must therefore compress asset duration, diversify funding tenors and tighten cash-flow discipline to convert growth into sustainable solvency.

Figures 1 and 2 present the current liabilities and current ratios of two representative infrastructure construction firms.

Chongqing Water: liabilities rose from RMB 1.1 bn (2010) to 3.9 bn (2014), peaking in 2013;

the ratio fluctuated between 2.0 and 4.1. A further +5.3 bn by 2024 drove the ratio down to 0.6, evidencing asset growth lag and eroding liquidity.Bohai Water: liabilities crept to 0.8 bn through 2014 (ratio ≈ 0.5), then jumped to 3.5 bn by 2024; the ratio bottomed at 0.4 (2016) before stabilising at 0.5–1.0, implying active asset restructuring.Despite higher current liabilities, Chongqing Water retains the superior ratio, yet its steep downward trajectory signals tightening repayment pressure relative to Bohai Water's more contained volatility.

Figure 1 and Figure2 illustrate the current liabilities and current ratios of three representative municipal engineering firms.Overall, Shanghai Tunnel and Sichuan Road & Bridge have experienced substantial growth in current liabilities, accelerating notably since 2019. In contrast, Guangdong Expressway maintains relatively low and stable current liabilities. The current ratios of Shanghai Tunnel and Sichuan Road & Bridge generally fluctuate around 1.0, while Guangdong Expressway exhibits greater volatility.From 2010 to 2015, Guangdong Expressway's current liabilities remained around RMB 2 billion, peaking at RMB 2.7 billion in 2012, while its current ratio hovered at a relatively low level of approximately 0.6. Between 2016 and 2020, liabilities fluctuated around RMB 2.5 billion, with the current ratio showing a clear upward trend. After 2020, liabilities fell below RMB 2 billion, and the current ratio surged above 2.6, maintaining an elevated level. This pattern reflects a defensive liability management strategy characterized by "low-liability and cash-flow priority." The sharp increase in the current ratio after 2020 indicates strategic adaptation to market conditions and sound operational performance.Shanghai Tunnel Engineering Co., Ltd. demonstrated more significant liability growth than Guangdong Expressway from 2010 to 2015, rising from RMB 10 billion to RMB 29.7 billion. During this period, its current ratio fluctuated around 1.0, reaching a low of 0.9 in 2012. Between 2016 and 2020, current liabilities increased by RMB 30 billion, while the current ratio remained near 1.0. From 2020 to 2024, liabilities grew rapidly from RMB 76 billion in 2021 to RMB 108.2 billion in 2024, with the current ratio declining slightly but still oscillating around 1.0. This growth, supported by the financial capacity of a developed region, aligns closely with revenue expansion.Sichuan Road & Bridge Construction Group Co., Ltd. shows trends broadly consistent with Shanghai Tunnel. However, after 2021, its current liabilities increased more rapidly. Following 2019, the company maintained high liability growth alongside a low current ratio, resulting in a rapid decline in long-term solvency and the formation of a high-risk financial structure.In summary, Guangdong Expressway Development Co., Ltd. exhibits the lowest current liabilities and the highest current ratio, indicating the most favorable financial condition and operational stability among the three firms.

Figure1 and Figure2 compare the current liabilities of the top-performing urban investment companies across four sectors: power engineering, port engineering, infrastructure construction, and municipal engineering. Based on the preceding analysis, the leading representatives are identified as follows: Guangzhou Development Group Co., Ltd. (power engineering), Xiamen Port Development Co., Ltd. (port engineering), Chongqing Water Group Co., Ltd. (infrastructure construction), and Guangdong Expressway Development Co., Ltd. (municipal engineering).Regarding current liabilities, the debt scale of energy and public utility enterprises is substantially larger than that of port and transportation sectors, with the order being: Guangzhou Development > Chongqing Water > Xiamen Port > Guangdong Expressway. Guangzhou Development exhibits both the fastest growth rate and the highest absolute level of current liabilities. In contrast, Guangdong Expressway shows the slowest growth and the lowest liability level.In terms of the current ratio, Chongqing Water maintained a higher ratio than the other three sectors until 2018. From 2018 to 2020, the ratios across all four sectors converged. After 2020, Guangdong Expressway achieved a notably higher current ratio than the others. Overall, Guangdong Expressway demonstrated the most significant improvement in its current ratio, while Chongqing Water experienced the sharpest decline.

Chart synthesis yields a clear hierarchy. Guangdong Expressway kept liabilities flat and raised its current ratio above 1.0 after 2020, achieving the sector's strongest liquidity buffer.

Guangzhou Development, Chongqing Water and Xiamen Port all ended 2024 with ratios below 1.0 despite larger asset bases, confirming that aggressive expansion has eroded short-term solvency. UICs must now cap liability growth, lengthen debt tenor and align capex with cash-generating capacity to restore repayment headroom.

4. Conclusions and Recommendations

4.1 Conclusion

Comparative analysis of 2010–2025 financial data from eleven Urban Investment Companies across power, port, infrastructure and municipal engineering yields four conclusions:

1.Despite similar strategies, Guangzhou Development posts the lowest current liabilities and highest current ratio among power UICs, signalling superior performance. The sector carries the largest and fastest-growing current-liability pool, yet firm-level solvency diverges sharply. Central SOEs—SDIC Power and Beijing Jingneng—run high, stable liabilities with ratios persistently near 0.5, exposing systemic rollover risk. Local SOEs—Guangdong Construction Engineering and Guangzhou Development—keep liabilities modest and ratios ≥0.7, evidencing tighter self-discipline and stronger intrinsic liquidity management.

2.Port UICs post decelerating yet sizeable liability growth and retain ratios >1.0, preserving near-term solvency. Beibu Gulf carries heavy, volatile debt; its wavering ratio warns of maturity mismatches inherent in lengthy Belt-and-Road pay-back cycles. Xiamen Port's abrupt liability and ratio swings trace recurrent asset restructurings under coastal-market reforms, evidencing proactive balance-sheet optimisation despite heightened short-term volatility.

3.Infrastructure UICs show accelerating current-liability growth, yet absolute current liabilities stays moderate. Ratios exceeded 1.0 until a sharp break in 2013; since 2019 they have plateaued below 0.7, signalling persistently tight liquidity despite robust nominal repayment capacity.

4. Municipal UICs pursue divergent strategies. Guangdong Expressway pairs minimal liabilities with a sustained high ratio, achieving the soundest position. High-growth, high-current liabilities firms keep ratios anchored near 1.0, while low-liability entities display wider ratio swings yet remain operationally effective.

5. Power UICs bear the steepest, fastest-growing current liabilities; port and infrastructure peers also post sizeable increases, whereas municipal players keep liabilities lowest and most stable. Infrastructure ratios fluctuate most violently; municipal firms deliver the highest current-ratio growth.

4.2 Suggest

Financial risk control anchors operational resilience and long-run competitiveness. Urban investment companies can only sustain growth by pre-empting internal risks. This study proposes reasonable risk control optimization recommendations from three perspectives: corporate financing, investment, and internal operations.

First, urban investment companies must optimize their financing structures to reduce capital costs. Simultaneously, they should enhance internal capital utilization efficiency and strengthen fund management to mitigate operational risks and create foundations for future development opportunities.Second, urban investment companies should improve investment decision-making and project management to avoid financial risks. This requires thorough market analysis to adjust business strategies in response to changing conditions, thereby securing higher investment returns. Furthermore, rigorous risk assessment and project supervision mechanisms should be established to systematically identify and evaluate risk factors.Finally, robust internal control systems should be adopted to strengthen risk management and prevent operational risks. Companies should also conduct regular risk-awareness training for financial staff to improve overall risk preparedness.

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