

Motivation and Economic Consequences of “A-split A” Listing: Take China Railway Construction Co., Ltd. as an Example

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Abstract. Based on the policy background of “several opinions of the State Council on the high-quality development of capital market” (the new “nine articles of the state”), this study takes China Railway Construction’s spin-off from the railway construction heavy industry as a case to systematically examine the impact of strengthening supervision on the “A-split A” model. By integrating the theoretical framework of spin-off listing and using the method of financial index analysis, the study found that the spin-off case failed to produce significant positive economic benefits. The empirical results show that in the current strict regulatory environment, the spin-off listing strategy of enterprises needs to break through the restrictions of the A-share market and explore more diversified capital operation paths. The supervision of spin-off listing in China is stricter than that abroad, although it can bring multiple benefits to the parent company. In December 2019, the Securities Regulatory Commission issued several provisions on the pilot listing of subsidiaries of Listed Companies in China, which clarified the requirements for domestic spin-off for the first time. In April 2024, the new “national nine articles” further strengthened the continuous supervision standards of listed companies. Under the strong regulatory policy, some enterprises have shifted from listing on the Shanghai Stock Exchange and Shenzhen Stock Exchange to the Beijiao stock exchange or the new third board with a lower threshold and faster audit, which has led to the cooling of the “A-split A” market. Based on the above research background, this paper focuses on the motivation and economic consequences of the “A split A” listing of China Railway Construction Co., Ltd., to provide experience and suggestions for other Listed.

Keywords: China railway construction, spin-offs, motivation, economic consequences.

1. Introduction

“A-split A” is when the parent company separates part of its business into subsidiaries through a spin-off listing and promotes its listing. The motivation of this model and its impact on corporate performance have been widely discussed in academic circles at home and abroad. As the pioneer of the reform of central enterprises, China Railway Construction took the lead in completing the capital structure innovation of “A+H+science and Technology Innovation Board”. Its initiative to split up railway construction heavy industry to be listed on the science and technology innovation board not only accurately meets the requirements of the mixed ownership reform policy of state-owned enterprises, but also realizes business focus by stripping off the high-end equipment manufacturing sector, effectively solves the problem of resource dispersion brought about by diversified operation, and provides a replicable demonstration sample for the capital operation of central enterprises.

The relevant research on the motivation of spin-off listing mainly includes three views: first, to solve the diversified discount, focus on the core business, and improve efficiency and value [1]. Asset stripping continues to improve the operating performance of the seller’s remaining assets within three years after the sale, which is particularly significant in companies that achieve business focus [2]. The improvement of operating performance is correlated with the positive return of stock price at the time of divestiture announcement, and the announcement return of strategic focus divestiture is higher [3]. The purpose of the spin-off listing of enterprises is to correct the valuation deviation of the market and achieve accurate revaluation of asset value by improving business transparency [4]. The second view is to open up independent financing channels for growth subsidiaries, alleviate the constraints of parent companies, and optimize the capital structure [5]. Financing motivation is an important reason for the spin-off, specifically, to raise funds for enterprise development, reduce the financial

leverage ratio, and improve the company's financing capacity and operating efficiency [6]. Third, the development of strategic motivation, delisting improves independence, strengthens the focus of the main business, improves resource efficiency, and finally achieves strategic synergy and value doubling to promote the high-quality development of the Group [7]. Spin-off releases value by reducing business complexity, improving information transparency [8].

Existing literature has analyzed the motivation of spin-off listing from two aspects: business focus value release, and financing optimization effect. There are still research gaps in the long-term financial performance linkage mechanism and capital structure remodeling, driving the upgrading of the whole industrial chain. This paper fills this gap. Taking China Railway Construction spin off railway construction heavy industry to science and technology innovation board listing as an example, this paper uses case analysis method and financial index comparison method to analyze the valuation changes, financing structure optimization and technological research achievements before and after spin off, and concludes that spin off eliminates mixed discount to realize the revaluation of mother child dual platform value, accompanied by the decline of accounts receivable turnover and other potential risks, which has theoretical and practical significance.

2. Case Introduction

2.1. Company Overview

China Railway Construction Co., Ltd., formerly known as the engineering headquarters of the Ministry of Railways, established in 1984, landed on the Hong Kong Stock Exchange on November 5, 2007, and was listed on the Shanghai Stock Exchange on March 10, 2008. As the world's top comprehensive construction group, its core business covers engineering contracting, survey and design, real estate development, and equipment manufacturing, with annual revenue exceeding 1.1 trillion yuan, leading the Qinghai Tibet railway, Hong Kong Zhuhai Macao Bridge, and other national super projects.

China Railway Construction Heavy Industry Group Co., Ltd. is the core holding subsidiary of China Railway Construction Co., Ltd. (holding about 66.77% of the shares), which was successfully listed on the Shanghai Stock Exchange on June 22, 2021. As a leading tunnel engineering equipment manufacturer in the world, its first product, full face tunnel boring machine technology, has reached the international advanced level, with a domestic market share of more than 60%, leading major national projects such as Qinghai Tibet railway, Guangdong Hong Kong Macao Greater Bay Tunnel, and so on. At the same time, the company's large road maintenance machinery has a domestic market share of 85%, and actively expands emerging fields such as mining equipment and intelligent agricultural machinery.

2.2. Spin-Off Listing Path

China Railway Construction Heavy Industry lasted about 18 months from the proposal of spin-off listing to the formal listing, focusing on equity, injecting funds, and introducing strategic investors to increase capital and expand shares. On June 22, 2021, China Railway Construction Heavy Industry was listed on the main board of the Shanghai Stock Exchange. The listing process is shown in Table 1.

Table 1. Analysis of the listing path

Date	Process
2019/12/18	The board of directors of China Railway Construction officially launched the spin-off plan by adopting the plan for the listing of the spin-off railway construction heavy industry on the Science and Technology Innovation Board for the first time
2020/6/15	The application for spin-off listing was officially accepted by the Shanghai Stock Exchange
2020/9/17	Approved by the Municipal Committee of Science and Technology Innovation Board
2020/12/21	Obtain the approval of IPO registration from the China Securities Regulatory Commission
2021/6/22	It was officially listed on the Shanghai Stock Exchange

Before the spin-off listing, China Railway Construction held 100% of the shares of the railway construction heavy industry, and 75% of the shares after the spin-off listing. After the spin-off in 2021, China Railway Construction directly held 65.83% of the railway construction heavy industry.

3. Motivation Analysis

3.1. Mismatch of Differentiated Valuation of Main Business

China Railway Construction has great differences in the attributes of simultaneous operation, and the capital market cannot accurately price the differentiated business, resulting in high-value business being dragged down by low-value business, and the overall valuation is lower than the sum of the values of each part. China Railway Construction takes engineering contracting as the core, while the railway construction heavy industry belongs to high-end equipment manufacturing. Under the consolidated statements, the technology premium of the equipment sector is covered up by the low valuation of infrastructure. After the spin-off in 2021, the PE peak of the railway construction heavy industry innovation board exceeded 40 times, significantly higher than the 6-8 times valuation of the shares of the parent company, eliminating the “mixed discount”. Before the spin-off in 2020, CRCC Heavy Work was a subsidiary business of the parent company’s engineering contracting sector, and its high-end equipment manufacturing attributes were seriously underestimated. According to the overall 6.2 times PE (market value of 120 billion yuan) of China Railway Construction, the implicit valuation of the equipment sector was only about 6 billion yuan.

After the listing of the science and technology innovation board in June 2021, the railway construction heavy industry was repriced by the market with pure technology labels, with a market value of 40.2 billion yuan on the first day, corresponding to 42 times PE, and a valuation premium of 570%. Spin-off not only makes the technical value of railway construction heavy industry explicit, but also reversely drives the PE of the parent company from 6.2 times to 7.5 times in 2023, forming a pattern of “double rise of parent and subsidiary companies”.

3.2. Financing Needs

As a technology-intensive equipment manufacturing sector, R&D investment in the railway construction heavy industry has continued to be high, accounting for more than 55% of the period’s expenses in the past three years, significantly higher than the average level of 3% of the parent company’s engineering contracting business. In 2020, the asset liability ratio of China Railway Construction, the parent company, reached 76.8%. Affected by the extension of the repayment cycle of infrastructure projects, the cash flow from operating activities decreased by 23% year-on-year, facing significant financing constraints [9].

After the spin-off and listing, the railway construction heavy industry raised 3.688 billion yuan through the IPO of the science and technology innovation board, which was directly used for the construction of the TBM intelligent production line and the research and development of key technologies. Compared with the previous reliance on guaranteed loans from the parent company (interest rate 5.1% - 5.8%), independent listing made it obtain an AAA main credit rating, the coupon rate of the first Kechuang bond issued in 2022 was only 3.2%, and the annual financial cost was saved by more than 80 million yuan. Capital market docking has shortened the R&D fund arrival cycle from the original three months to 30 days, with a cumulative R&D investment of 3.4 billion yuan in 2021-2023, an increase of 62% over the three years before the spin off, and promoted the localization rate of core products such as 10m shield machines to 100%, which has completely changed the situation of capital constraints [10].

3.3. Responding to National Strategies

Relying on the Dongfeng policy of science and technology innovation board in 2019, as the first “A-split A” listed central enterprise, it seized the first opportunity, invested 82% of the 3.688 billion yuan raised by spin off in technology, promoted the import rate of core components of shield machine

from 60% to zero within three years, and led the formulation of the world's first international standard for "full face road header". Synchronously build an ecological chain of "state-owned assets guiding to market feedback" - the national manufacturing fund invested 500 million yuan to leverage industry-university research collaboration, and the procurement cost of domestic shield machines decreased by 37%.

The employee stock ownership plan will reduce the R&D turnover rate to 5% and ensure 100% domestic monopoly of extremely hard rock TBM technology. Finally, super projects such as the plateau railway will be secured with 65% of the global market share to complete the strategic transformation from technology import to rule export. In the past, the successful implementation of "A demolition A" by General Electric, Ideal Holdings, CITIC Special Steel, and other enterprises has also provided valuable experience for China Railway Construction.

4. Economic Consequences

Profitability. The financial data of China Railway Construction from 2020-2022 are shown in Table 2. The profitability of China Railway Construction over the past three years has shown characteristics of steady increase, but with a low profit margin. Although the total operating income increased from 910.325 billion yuan in 2020 to 1096.345 billion yuan in 2022, and the average annual compound growth rate of net profit attributable to the parent company reached 9.1%, the net interest rate remained in the range of 2.4% - 2.5%, significantly lower than the industry average. On the one hand, it reflects the fierce competitive environment and raw material cost pressure in the infrastructure industry; on the other hand, it also highlights the difficult balance between enterprise scale expansion and profit growth. In the future, the study needs to improve the quality of profits by optimizing the project structure and increasing the proportion of high-value-added business.

Table 2. Financial data

Year	2020	2021	2022
Total operating income	9103.25	10200.12	10963.45
Net interest rate (%)	2.46	2.42	2.43
Current ratio	1.12	1.08	1.05
Asset liability ratio (%)	74.3	74.7	74.9
Turnover rate of accounts receivable (Times)	4.2	3.8	3.5
Total operating income increased by (%) year-on-year	-5.6%	12.1%	7.5%

Solvency. China Railway Construction shows the unique financing advantages and risks of central enterprises. The asset liability ratio is stable at a high level of 74% - 75%, which is consistent with the highly leveraged business model of the construction industry, but the current ratio has dropped from 1.12 to 1.05 year by year, and the short-term solvency has been weakened. Although the parent company's statement data is still slightly higher than the industry warning line, the liquidity ratio at the subsidiary level is as low as 0.49, which exposes local liquidity risk. Enterprises need to strengthen the overall management of funds to avoid a liquidity crisis caused by the concentrated maturity of short-term debt.

Operational capacity. China Railway Construction is facing the challenge of a continuous decline in the efficiency of accounts receivable turnover. The turnover rate of accounts receivable dropped from 4.2 times in 2020 to 3.5 times in 2022, and the scale of accounts receivable reached 280 billion yuan, reflecting the significant extension of the project repayment cycle under the financial pressure of local governments. This situation not only occupies a large amount of working capital, but also increases the risk of bad debts. Enterprises need to establish a stricter accounts receivable management system while exploring innovative models such as supply chain finance to improve cash flow.

Ability to grow. In terms of growth capacity, China's railway construction shows the periodic characteristics of "slowing income growth but sufficient reserves". The 12.1% growth rate of total

operating income in 2021 was due to the rebound in infrastructure investment after the epidemic, and the growth rate fell back to 7.5% in 2022, reflecting the normal situation of the industry, but the data of new contracts amounting to 3.2 trillion yuan, an increase of 18% over the same period last year, provided support for future growth. This development mode of “replenishing price by quantity” not only reflects the market position of enterprises as the leader of infrastructure, but also exposes the risk of a single business structure. In the future, the study needs to accelerate the expansion to emerging areas such as urban renewal and new energy while maintaining the advantages of traditional infrastructure.

5. Conclusion

The results of this case study show that although China Railway Construction’s spin-off of the railway construction heavy industry to the science and technology innovation board listing has achieved results in specific dimensions, the overall economic benefits have not reached expectations. From the perspective of valuation reconstruction, the spin off has effectively solved the valuation discount dilemma caused by mixed operation: railway construction heavy industry has obtained 42 times PE valuation by virtue of pure scientific and technological attributes, and its market value has jumped from 6 billion yuan to 40 billion yuan, forming a “parent subsidiary company double rise” pattern of mother child dual platform valuation linkage. At the level of financing optimization, the subsidiary raised 3.688 billion yuan independently, and through the issuance of Kechuang bonds, the financing cost was reduced from 5.8% to 3.2%, the annual financial cost was saved by more than 80 million yuan, and the R&D fund arrival cycle was shortened to 30 days. However, the analysis of financial indicators shows that the net interest rate of the parent company in 2020-2022 has always hovered at a low level of 2.4% - 2.5%, and the turnover rate of accounts receivable has dropped from 4.2 times to 3.5 times, corresponding to the scale of 280 billion yuan of accounts receivable, reflecting that the spin off has failed to fundamentally improve the profit quality and operational efficiency of the main business. The underlying reason is that the current strong regulatory environment significantly restricts the release space of spin-off value. The new “national nine articles” strengthen continuous regulatory standards, leading enterprises to shift from the Shanghai and Shenzhen stock exchanges to the Beijiao stock exchange, which reviews faster, and weakening the value discovery function of the capital market.

The main contribution of this paper is to fill the research gap of the long-term financial performance linkage mechanism and capital structure remodeling, driving the upgrading of the whole industrial chain in the field of spin-off listing. Through empirical analysis of the three-dimensional interactive relationship between valuation reconstruction, financing structure optimization, and technological research, this paper reveals the actual efficiency boundary of the “A-split A” model in the reform of state-owned enterprises. This study is conducive to correcting the overly optimistic expectations of the market for spin-off listing, providing an empirical basis for regulators to improve the spin-off system, and helping enterprises to formulate more rational capital operation strategies. The help to follow-up researchers is reflected in the construction of a comprehensive evaluation framework covering business focus, governance optimization, and resource synergy, which provides a replicable case analysis paradigm. There are three shortcomings in the current research: first, it only focuses on short-term financial data and lacks long-term tracking of industrial chain synergy; Second, there is no in-depth comparison of the differentiated effects of the spin off paths of different capital markets (such as Hong Kong stocks and US stocks); Third, the transmission mechanism of regulatory policy changes to enterprise decision-making has not been quantitatively analyzed. Future research should expand multi-case comparative analysis, establish a dynamic evaluation index system of spin-off performance, and introduce machine learning methods to predict the spin-off results in different policy scenarios.

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