

# Research on Optimizing the Equity Structure of Railway Transport Enterprises

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**Abstract.** In order to improve the economic benefits through the optimization of the equity structure of the Daqin Railway, this article takes the Daqin Railway as the research object, analyzes the Daqin Railway's equity structure and the current situation, and summarizes the problem of fewer physical shareholders in the equity structure of the railway transportation industry. Combined with the case that study on the optimization of the equity structure of out-of-industry transportation companies and related companies in the railway industry, and based on the theory of industrial association, the research shows that the number of relevant entity shareholders in the company's equity structure is positively related to the economic profit of the company. The selection plan enables the Daqin Railway to realize cooperation with enterprises in the same industry and the same industry chain through equity optimization to form a more complete industrial layout, further improve economic efficiency, make finance better integrate with the physical industry, and realize the purpose of financial services for the development of the physical industry.

## 1. Introduction

Daqin Railway Co., Ltd. landed in A shares in 2006. From the currently listed railway transportation industry, the total market value and profit of Daqin Railway stock ranked first. According to the report for the first quarter of 2019, there are only two physical enterprises among the top ten shareholders. In addition to the major shareholder China Railway Taiyuan Bureau Group Co., Ltd., there is only Hebei Port Group Co., Ltd., which is an upstream and downstream company in the rail transportation industry. 8 homes. There are fewer entities, and the shareholding structure is relatively simple. This article believes that financial financing mainly by financial institutions cannot take advantage of the equity financing of physical enterprises. The optimization of equity should choose a financing method that absorbs industrial investment to facilitate the use of the advantages of equity operation and integration of industrial resources. The financing method for industrial investment is mainly from the upstream and downstream industries in the railway transportation industry. The companies that can reach strategic cooperation with the Daqin Railway for related industries are selected as the object of equity optimization. Good industrial layout and further financial gains. Organization of the text.

## 2. Analysis of equity structure of railway listed companies

Table 2-1 shows the shareholding structure of the top ten shareholders announced in the first quarterly report of Daqin Railway Company in 2019. Most of the companies are securities fund companies in the financial industry, and the only entity related to the railway transportation industry is Hebei Port, which is engaged in port logistics Group Co., Ltd. The ownership structure is not rich enough, and there is less cooperation with related companies, which is not conducive to the company's own development and the overall transportation industry.

Table1. Shareholding structure of the top ten shareholders of Daqin Railway in 2019

Name of shareholder	Number of shares	Shareholding ratio
<b>China Railway Taiyuan Bureau Group Co., Ltd.</b>	<b>9172093536</b>	<b>61.70%</b>
Hong Kong Securities Clearing Company Limited	638403762	4.29%
China Securities Finance Co., Ltd.	363431974	2.44%
Central Huijin Asset Management Co., Ltd.	204154500	1.37%
<b>Hebei Port Group Co., Ltd.</b>	<b>158702841</b>	<b>1.07%</b>
Boshi Fund-Agricultural Bank-Boshi CSI Financial Asset Management Plan	119024765	0.8%
E Fund-Agricultural Bank-E Fund CSI Financial Asset Management Plan	119024765	0.8%
Dacheng Fund-Agricultural Bank-Dacheng CSI Financial Asset Management Plan	119024765	0.8%
Harvest Fund-Agricultural Bank-Harvest CSI Financial Asset Management Plan	119024765	0.8%
GF Fund-Agricultural Bank of China-GF China Securities Financial Asset Management Plan	119024765	0.8%

Railway is an important industrial sector of the national economy. With the support of the policy of mixed ownership reform, financing channels for railway transportation companies have also become diversified. Currently, three railway transportation companies have successfully listed on the market: Tielong Logistics. The situation of the shareholding structure of the top ten shareholders announced by Guangshen Railway Company and Tielong Logistics Company in 2019 is similar to that of Daqin Railway (the limitation of this article is omitted). Most of the companies are securities fund companies in the financial industry, with a single industry type and industrial association. There are few enterprises, the number of physical enterprises related to the railway transportation industry is low, and the richness of the equity structure is not enough. The equity relatedness of the entity-related enterprises is insufficient. The equity cooperation with related enterprises needs to be further strengthened.

Daqin Railway Co., Ltd. is mainly engaged in freight transportation, mainly including bulk cargo transportation such as coal and coke. It is a modern heavy-duty coal transportation line with the world's advanced level and the largest annual transportation volume. It mainly undertakes coal transportation in Shanxi, Inner Mongolia, and Shaanxi. The mission occupies an important position in the country's "Western Coal Transport East" energy transportation system. The company has the most mature, advanced, and reliable railway heavy-haul transportation technology in China, as well as a complete, advanced, and efficient coal heavy-load collection and distribution system.

### 3. Case Study on Optimizing the Equity Structure of Railway Enterprises

This article selects the top ten shareholding structures of some large state-owned enterprises with equity operation experience from other aspects of the transportation industry and the upstream and downstream enterprises of railway transportation. Based on the existing theoretical basis of industrial associations, the entity companies in the equity structure and The relationship between the economic interests of enterprises, and thus the optimization plan of the equity structure of the railway industry.

#### 3.1 Optimization analysis of equity structure in other transportation industries

##### 3.1.1. Case study of China Southern Airlines equity structure optimization

China Southern Airlines Group's shareholding system reform is at the forefront of China. China Southern Airlines Group first adopted a central-enterprise and local cooperation model to innovatively promote the reform of equity diversification at the central enterprise group level. China Southern Airlines is the largest passenger airline in China. According to the top ten shareholder structure announced by China Southern Airlines in 2019, a total of 4 companies belong to air transportation-related companies, of which Nanlong Holdings Co., Ltd. is a company specializing in

property services and domestic trade. Upstream related companies in air transportation, American Airlines and Spring and Autumn Airlines Co., Ltd. are companies in the same industry.

The shareholders of China Southern Airlines' top ten entities and China Southern Airlines are related industries. Equity holdings between industry-related companies are not just for financial investment to achieve investment income. More importantly, strategic cooperation, industrial resource sharing, industrial associations, Improve industrial layout, increase market share, and other industrial investment related to industrial development.

(1) Business cooperation between China Southern Airlines and China Aviation Oil Group Co., Ltd.

In October 2017, China Southern Airlines Group signed a strategic cooperation framework agreement with China Aviation Oil Group Corporation. As the upstream of the air transportation industry, China Aviation Oil Group has a good foundation for cooperation and cooperation with China Southern Airlines. Over the years, it has achieved remarkable results in mutually beneficial and friendly cooperation. The strategic cooperation between the two can promote the development of civil aviation. In 2018, through this equity operation, the two sides will carry out higher-level and closer strategic cooperation.

(2) Business cooperation between China Southern Airlines and American Airlines

American Airlines became one of the top ten shareholders of China Southern Airlines in 2017. In 2018, China Southern Airlines and American Airlines further established a partnership. The two parties can share resources and share resources in transportation, staff and airport facilities, and code sharing. And other aspects of cooperation to improve the route network layout in the Chinese and American markets.

(3) Business cooperation between China Southern Airlines and Spring Airlines

In 2018, Spring Airlines became one of the top ten shareholders of China Southern Airlines. Spring Airlines is the largest low-cost airline in China, with a wider distribution and higher proportion in second- and third-tier cities. China Southern Airlines has the largest fleet in Asia, with a large scale of operation, and a large space for cooperation with Spring Airlines. China Southern Airlines can use the route resources of Spring and Autumn Airlines' second- and third-tier cities to carry out a more comprehensive industrial layout and gain a larger market share, providing more convenient services for people's air travel in second- and third-tier cities.

Fig.1 shows the relationship between China Southern Airlines' net profit and the number of non-financial shareholders. It can be seen that China Southern Airlines' changes in the number of non-financial shareholders from 2002 to 2018 were basically synchronized with changes in net profit. From 2008 to 2009, the number of non-financial shareholders of China Southern Airlines increased from one to two, and net profit increased. From 2016 to 2017, the number of non-financial shareholders increased from two to four, and net profit also increased.

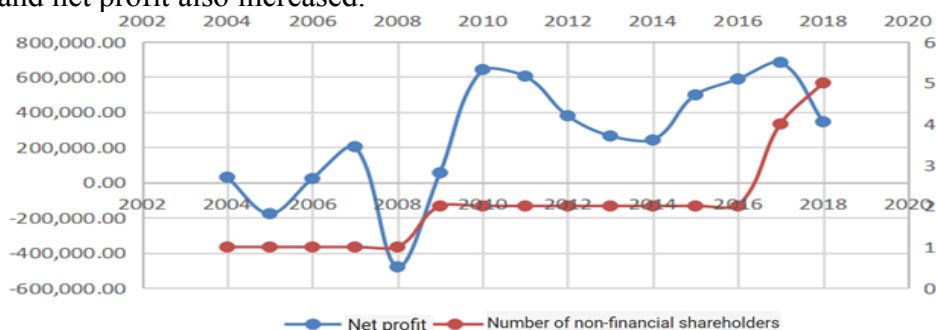


Fig.1. Relationship between China Southern Airlines' net profit and the number of non-financial shareholders

### 3.1.2 Case Study of COSCO Holdings Holding Structure Optimization

COSCO SHIPPING Holdings Co., Ltd., referred to as "COSCO SHIPPING" for short, was formerly known as "China Ocean Shipping". It belongs to the leading enterprises in China's shipping industry. COSCO SHIPPING has two main businesses: container shipping business and terminal operation management business. COSCO SHIPPING mainly engages in the loading and unloading and storage of containers and bulk cargo terminals through COSCO Shipping Ports. COSCO SHIPPING Ports is

committed to building a meaningful holding network around the world to provide customers with a complete network with linkage effects in terms of cost, service and synergy.

According to the top ten shareholding structures announced by COSCO SHIPPING in 2019, there are four physical enterprises. China Ocean Shipping Group Co., Ltd. is the parent company of China Ocean Shipping Company, and China Eastern Airlines Industrial Investment Co., Ltd. is an industrial investment company under China Eastern Airlines. China Shipbuilding Industry Corporation and Wuhan Iron and Steel Group Co., Ltd. are companies related to the transportation industry, and the remaining shareholders are securities investments.

Fig.2 is the relationship between COSCO's net profit and the number of non-financial shareholders from 2003 to 2018. It can be seen that the change in the number of non-financial shareholders and the change in net profit show roughly cyclical fluctuations, but the two are basically synchronized. From 2007 to 2009, the number of Sino-African financial shareholders decreased from 6 to 4, and net profit decreased from 2,085,397.48 to -673,713.06. From 2012 to 2013, the number of non-financial shareholders in China increased from four to five, and net profit increased from -813,744.15 to 287,942.17. In 2014, the number of non-financial shareholders decreased by one, and net profit decreased to 155,082.12.

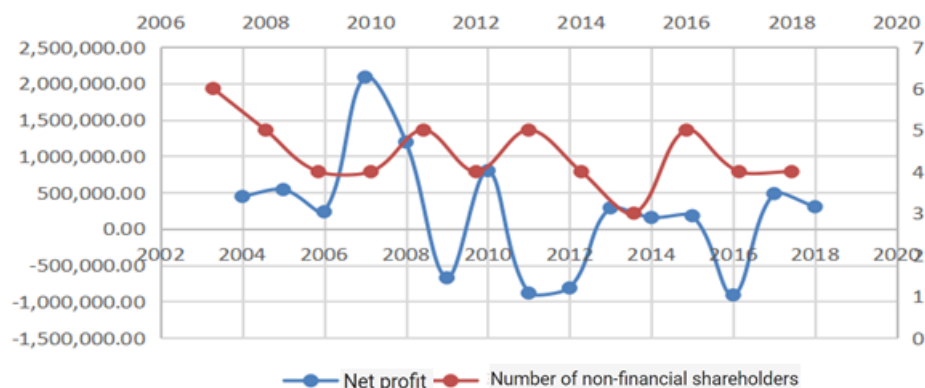


Fig.2. Relationship between COSCO's net profit and the number of non-financial shareholders

### 3.2 Upstream and downstream enterprises

#### 3.2.1 Rizhao Port's stock structure optimization case

Among the top ten shareholders of the port, a total of 5 companies belong to port-related companies: Yankuang Group Co., Ltd., Zibo Mining Group Co., Ltd., and Handan Iron and Steel Group Co., Ltd. are coal with upstream and downstream relations with Rizhao Port. Energy enterprises such as mining, minerals, etc.; and Rizhao Port Group Lanshan Port Co., Ltd., which is an important transit port for coal and timber in Shandong Province, mainly engaged in port cargo handling, warehousing, etc.; and finally, Gold Control Assets, an asset management company owned by Shangang Management (Shenzhen) Co., Ltd.

Fig.3 is the relationship between Rizhao Port's net profit and the number of non-financial shareholders. Among the shareholders of Rizhao Port, the number of industries associated with the port is large, reaching 7 at most and 4 at least, mainly including coal, minerals and steel bulk cargo industries. The change in net profit from 2006 to 2018 was broadly consistent with the change in the number of non-financial shareholders. From 2011 to 2013, the number of non-financial shareholders in Rizhao Port increased from 4 to 7, and its net profit increased from 49,940.41 to 83,265.03, but from 2014, the number of non-financial shareholders from 2014 to 2017 increased from 7. When the number dropped to 4, the net profit of Rizhao Port fell rapidly to 44,724.89. However, the increase in the number of non-financial shareholders from 2017 to 2018 and the rise in net profit to 73,527.40 have a lagging synchronous growth, and the changes of the two have basically synchronized.

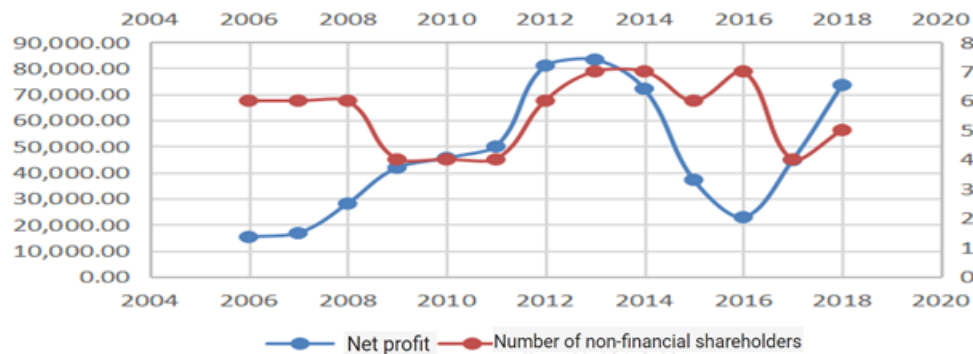


Fig.3. Relationship between Rizhao Port's net profit and the number of non-financial shareholders

### 3.2.2 Case Study of Optimizing the Equity Structure of Baoshan Iron and Steel Co., Ltd.

Among the top ten shareholders of Baoshan Iron and Steel in 2019, three companies belong to Baoshan Iron and Steel-related companies, namely: iron and steel enterprises in the same industry, Wuhan Iron and Steel Group Co., Ltd., steel upstream energy company China National Petroleum Corporation, and steel downstream China Ocean Transport Co., Ltd. The rest are financial securities investment enterprises. Fig.4 The relationship between Baoshan Iron and Steel's net profit and the number of non-financial shareholders. The change in the number of non-financial shareholders and the change in net profit are basically synchronized.

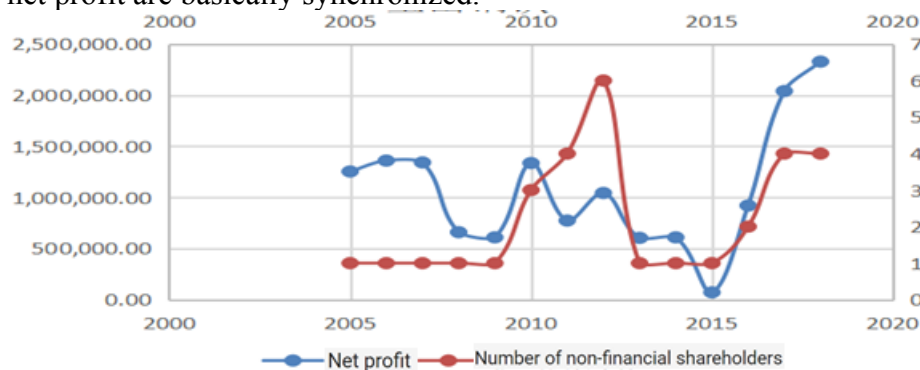


Fig.4. Relationship between Baoshan Steel's net profit and the number of non-financial shareholders

### 3.2.3 Case Study of Shanxi Coking's Equity Structure Optimization

Among the top ten shareholders of Shanxi Coking, a total of 4 companies are steel companies, namely Shougang Group, Lianyuan Iron and Steel Group, Hegang Group, Nanjing Iron and Steel Co., Ltd., and the rest are trust fund companies. From Fig.5, the changes in Shanxi Coking's net profit and the number of non-financial shareholders show that the overall change of the two is generally consistent, and the changes are basically synchronized. That is to prove that the richness of corporate equity structure can promote corporate profit growth.

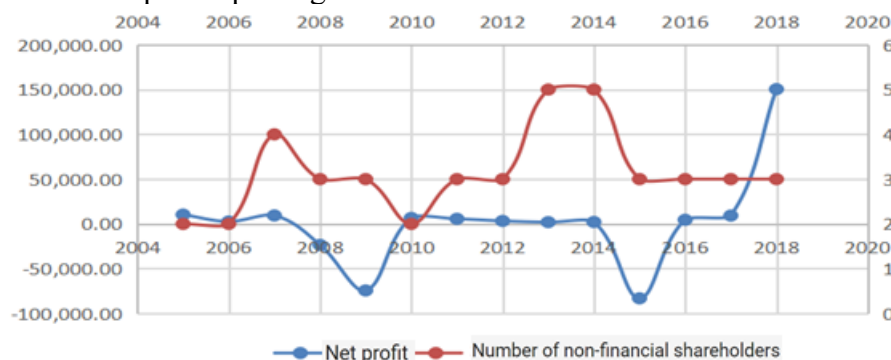


Fig.5. Relationship between Shanxi Coking's net profit and the number of non-financial shareholders

#### 4. Daqin Railway Equity Structure Optimization Plan

From the case study in Chapter 3, it can be concluded that in the equity structure of an enterprise, the number of non-financial entities related to the corporate industry and the profit of the enterprise are positively correlated. Therefore, the greater the number of entities in the equity structure, the more conducive to the formation of industrial integration and development of enterprises, and promote economic benefits. Compared with China Southern Airlines, China Eastern Airlines and COSCO SHIPPING, the top ten shareholders of Daqin Railway have fewer Chinese and African financial investment institutions, and the lack of rich equity in the physical industry related to railway transportation will not be conducive to their industrial development. The Daqin Railway should learn from the previous case to optimize the equity structure, enrich the equity of the physical industry related to railway transportation, accelerate industrial development, and thereby promote economic benefits.

(1) Research on equity operation targets of upstream and downstream industries of Daqin Railway and Railway Transportation

The Daqin Railway is in the same industrial chain as its upstream and downstream enterprises, and its business relationship is relatively close. Therefore, in the equity allocation of Daqin Railway, Eastern Airlines and China Southern Airlines can learn from the introduction of upstream oil processing companies in the equity operation object, the introduction of upstream coal and other energy companies to expand their cargo sources, reduce customer acquisition costs; ports, steel, coking plants and other industries have increased their fixed sources of supply by increasing the matching of coal demand with the supply industry.

(2) Research on Objects of Equity Operation Outside the Daqin Railway and Railway Transportation Industry

The Daqin Railway can make reference to COSCO SHIPPING in the allocation of equity, and introduce the shares of other transport companies outside the railway industry with high industrial relevance in the equity objects; and it must fully consider the competitiveness and complementarity. It can also be developed as the object of equity operation, avoiding industrial competition, and at the same time enhancing the company's ability to resist risks, creating an integrated transportation network for the public transport of rail, port and shipping.

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