Proceedings of ICEMGD 2026 Symposium: Data-Driven Business Management, Corporate Governance, and Organizational Performance
DOI: 10.54254/2754-1169/2026.LD35262

Research on the Financing Decision of Spring Airlines

Xiang Zhang

School of Economics, Hebei GEO University, Shijiazhuang, China
12344419@qq.com

Abstract. With the rapid development of China's airline industry, more and more funds have been needed for new construction. Capital shortage will be an important reason restricting the expansion of the company. To alleviate the problem of lack of funds, this paper investigates all factors inside and outside the company that influence financing decisions, studies the case of Spring Airlines Co., Ltd., explores ways to optimize its capital structure and monetary funding plan in the aviation industry, and proposes some relevant suggestions. This paper finds that these three specific issues--a single source of funding, a high debt-to-asset ratio, and a low proportion of internal financing--will affect all the sources of funds for the company, increase its leverage-to-asset ratio, and reduce the amount of new domestic funds available for construction. Some specific suggestions have been put forward to address the above problems: restructurise liabilities, increase the channels for attracting overseas capital, and strengthen the internal capital system. With the continuous increase in demand for aviation around the world, Chinese airlines have been raising aircraft purchase plans and have faced higher financial pressure. As a budget airline that focuses primarily on commercial air navigation and passenger transport, the financial situation and capital strategy of Spring Airlines are very representative of the sector.

Keywords: Spring Airlines, Financing and financial decision-making, Optimization of capital structure

1. Introduction

Air travel is one of the major parts of China's integrated transportation system. Due to its high speed and comfort, it has attracted the attention of many, and gradually gained popularity because of its excellent quality and timeliness. With the development of the Chinese economy and an increase in living standards for all people, their demand for travel has risen, thus promoting continuous growth in the aviation market. At present, the airline industry is also changing and reorganising in the era of digitalisation. In order to help advance the development of China's commercial aviation sector in a stable and healthy way, it is necessary to revise and adjust the attitude of civil aviation enterprises. Although the aviation transport business in China has shown some strong growth, the total number of aircraft registered by domestic carriers is still much lower than that of many countries around the world in relation to the increase in travelers and cargo demands. In addition, since the European and United States countries have formally declared the implementation of the Open Skies Agreement, Chinese airlines will face considerable stress and obstacles in the international market. Herefore, in

DOI: 10.54254/2754-1169/2026.LD35262

order to expand activities and address the issues of global instability, carriers will continue to seek more funds and increase borrowing.

This paper specifically investigates the following aspects: first, the current composition and characteristics of Spring Airlines' financing sources; second, the trend of its debt-to-asset ratio and the associated financial risks; third, the proportion and utilization efficiency of internal financing relative to external funding. By examining these three aspects, this study aims to diagnose the underlying problems in Spring Airlines' capital structure and propose feasible optimization strategies tailored to the low-cost carrier model.

As for the research methods, this paper adopts a case study approach, focusing on Spring Airlines Co., Ltd. as the primary. Financial data from 2020 to 2024 are collected and analyzed, including profitability indicators, debt repayment capacity metrics, and operational efficiency ratios. A comparative analysis is also conducted between Spring Airlines and its competitors, such as Juneyao Airlines and China Southern Airlines, to benchmark its financial performance. Additionally, a literature review is employed to establish the theoretical framework for capital structure optimization and financing decision-making.

Research on the financial operations of Spring Airlines will help us understand what difficulties it encounters in raising funds and put forward corresponding improvement plans to make its capital structure and framework more reasonable, meet the company's need for funds reasonably, and support healthy and continuous development.

2. Analysis of the current financing situation of Spring Airlines

2.1. Basic information of Spring Airlines

On July 18, 2005, Spring Airlines Co., Ltd. was established and is one of the first private aviation enterprises in China. In the last two decades, there has been some development. By February 2024, the airline had acquired around 123 Airbus A320 family aircraft, and their average age was about 7 years. It has established many commercial and tourist bases in major areas of China, Southeast Asia and Northeast Asia; over 210 flight routes serve more than 20 million people each year.

2.2. Financial status analysis of Spring Airlines

2.2.1. Profitability analysis

Spring Airlines is one of the more financially efficient airlines in China [1]. In 2020, the annual income was 14.8 billion yuan, and by the end of the first three quarters in 2024, it had reached 14.1 billion yuan and a net profit of 2.68 billion yuan. The profit margin on revenue in 2020 was 12.42%; by the end of the first three quarters in 2024, it had reached 18.98% and surpassed both Juneyao Airlines and China Southern Airlines (see Table 1). It should be noted that its deficit duration is relatively short compared with that of traditional carriers; thus, it has an advantage.

DOI: 10.54254/2754-1169/2026.LD35262

Table 1. Comparison of financial profitability between Spring-Autumn Airlines and other air carriers [2]

	metric	2020	2021	2022	2023	2024
Spring Airlines	gross profit margin	11.41	-6.43	-4.35	-38.49	21.01
	net profit margin on sales	12.42	-6.31	0.34	-36.27	18.98
	return on equity	13.00	-4.02	0.29	-24.41	17.90
	rate of return on total assets	6.57	-1.91	0.11	-7.43	6.01
Juneyao Airlines	gross profit margin	14.02	-1.70	0.20	-35.98	19.22
	net profit margin on sales	6.04	-4.81	-4.06	-50.78	7.18
	return on equity	9.19	-3.68	-4.58	-44.11	11.91
	rate of return on total assets	3.71	-1.48	-1.25	-9.33	2.55
Southern Airlines	gross profit margin	12.09	-2.53	-2.54	-21.60	10.99
	net profit margin on sales	2.01	-12.77	-10.83	-38.71	2.32
	return on equity	4.22	-15.77	-17.57	-62.19	3.16
	rate of return on total assets	1.12	-3.74	-3.39	-10.61	0.90

Data Source: East Money Network

2.2.2. Debt repayment capacity analysis

Spring Airlines has had good debt-paying ability so far. The current ratio was more than one in both 2020 and 2024, so it had good short-term liquidity. Although the figure was less than 1 in all three years from 2021 to 2023, it was close to twice that of the industry. The interest coverage ratio was 48.24 in 2020, and in 2024, it exceeded that of the other companies eight times; thus, the company's long-term debt-paying ability and risk of interest payment were relatively strong [3]. Given a fixed asset turnover rate of about 1, the carrier has maintained its usual operating level. It still has a high proportion of taxes (see Table 2).

Table 2. Contrast of debt repayment potential evaluation between Spring-Autumn Airlines and various airlines [4]

	metric	2020	2021	2022	2023	2024
Spring Airlines	current ratio	1.12	0.95	0.9	0.88	1.04
	interest protection multiple	48.24	-7.1	1.05	-5.91	15.94
	fixed asset turnover	1.35	0.77	0.74	0.5	0.77
Juneyao Airlines	current ratio	0.47	0.38	0.24	0.19	0.22
	interest protection multiple	5.09	-0.29	0.12	-4.51	2.21
	fixed asset turnover	1.44	0.73	1	0.76	1.28
Southern Airlines	current ratio	0.18	0.41	0.34	0.23	0.22
	interest protection multiple	1.71	-1.38	-1.52	-4.68	1.75
	fixed asset turnover	1.21	1.09	1.15	0.99	1.3

Data Source: East Money Network

DOI: 10.54254/2754-1169/2026.LD35262

2.2.3 Operational capacity analysis

The capacity of operations is the ability of a company to run its daily operations and use all its resources to generate profits through capital management [5]. Table 3 presents three operational indices of the aviation companies: inventory turnover ratio, accounts receivable turnover ratio, and total asset turnover ratio. It can be seen that over the period from 2020 to 2024, Spring Airlines maintained a relatively high accounts receivable turnover rate compared with Juneyao Airlines and China Southern Airlines; that is to say, it had faster debt recovery and better utilisation of assets. Nevertheless, the inventory turnover rate and total asset turnover rate of the three carriers were all similar. By 2024, the inventory turnover speed and asset utilisation efficiency will reach the pre-pandemic level of 60.38% and 59.02%, respectively; thus, it can be seen that Spring Airlines' operating capacity still needs to be enhanced and will thus offer a profit expansion opportunity.

Table 3. Comparison and assessment of operational strengths of Spring-Autumn Airlines and other carriers [6]

	metric	2020	2021	2022	2023	2024
Spring Airlines	inventory turnover ratio	89.68	51.64	52.55	59.72	61.93
	average accounts receivable turnover ratio	121.49	102.11	134.72	82.16	102.89
	turnover of total capital	0.53	0.30	0.31	0.20	0.32
Juneyao Airlines	inventory turnover ratio	84.25	50.82	56.79	53.70	55.60
	average accounts receivable turnover ratio	36.59	19.06	21.34	15.60	31.22
	turnover of total capital	0.61	0.31	0.31	0.18	0.36
Southern Airlines	inventory turnover ratio	75.54	51.96	61.10	69.67	66.96
	average accounts receivable turnover ratio	50.37	32.17	37.27	31.35	34.51
	turnover of total capital	0.56	0.29	0.31	0.27	0.39

Data Source: East Money Network

2.3 Current financing situation of Spring Airlines

Spring Airlines' main financial needs are for operating funds and capital investment, so the total amount of funds required will be relatively large. With the rapid marketisation of the aviation sector, the company is using all sorts of financing channels more and more [7]. According to the historical data over the past five years, in 2020, the proportion of long-term debt in total debt reached 30%, and bank loans were still the main source. Lease financing instalments were about 6 per cent of liabilities, and bond servicing was 0 per cent for almost four consecutive years (see Table 4). It can be seen that the company's funding source is mainly bank credit and financial leasing, so its structure is relatively monotonous. Due to the impact of the epidemic, the number of passengers on civil aviation dropped from 2021 to 2023, and thus the total liabilities were significantly higher than in 2020. Even though some of the debt will be paid in 2024, there may still be credit risks in the following years.

Table 4. Financing analysis of Spring-Autumn Airlines unit: 100 million yuan [6]

time	2020		2021		2022		2023		2024	
	amount of money	propo rtion	amount of money	propo rtion	amount of money	propo rtion	amount of money	propo rtion	amount of money	propor tion

DOI: 10.54254/2754-1169/2026.LD35262

Table 4. (continued)

money borrowed for short time	34.57	24%	53.34	29%	42.34	17%	54.05	18%	46.47	16%
non current liabilities due within one year	19.59	14%	27.49	29%	30.67	12%	56.18	19%	56.39	19%
money borrowed for long term	42.58	30%	59.83	33%	94.72	39%	108.96	37%	105.97	36%
bond payable	1.92	1%								
balance of lease financing	9.13	6%	11.11	6%	15.63	6%	17.05	6%	18.51	6%
Total liabilities	143.25		182.49		245.73		297.27		293.96	

Data Source: East Money Network

3. Problems existing in Spring Airlines

3.1. The financing decision of Spring Airlines

Spring Airlines' main sources of funds at present are commercial loans and stock issuance. Although the issuance of shares can provide stable financial support and promote the development of the company, it may also dilute shareholders' interests and affect the rights of current shareholders. The current capital structure has too much debt and equity funding, which shows the problem of a single source of funds. Given the size and good liquidity of the enterprise, which has strong debt-servicing ability and can use aircraft as premium pledge property, air carriers can generally obtain fast credit from financial institutions and are thus more favourable for debt-based funding in the early stages of development. In addition, bond financing is generally regarded as a good public indicator, and equity funding may be regarded as a sign of liquidity pressure; thus, the company will be more likely to choose debt instruments [8]. However, a single source of funds will not meet all the development needs; therefore, many kinds of capital should be obtained to reduce risk and improve stability. Therefore, Spring Airlines should explore many ways to raise funds and improve its financial system based on the current circumstances in China and around the world [9].

Specifically, the financing problems of Spring Airlines are manifested in the following aspects: first, the proportion of bank loans in total liabilities remains high, while the proportion of direct financing methods such as bond financing and equity financing is relatively low; second, the company lacks the use of innovative financing tools (such as green bonds, asset-backed securities, etc.), resulting in a lack of flexibility in the financing structure [10]; third, the financing channels are mainly domestic, with insufficient exploration and utilization of overseas low-cost funds. These problems collectively lead to the vulnerability of Spring Airlines' financing structure to changes in domestic monetary policy and bank credit policies, increasing the uncertainty of funding acquisition [11].

3.2. High debt-to-asset ratio

Spring Airlines has a high debt level at present. Figure 1 shows the enterprise's leverage ratio of assets from 2020 to 2024, and it has been gradually increasing from 2020 to 2023. By 2022, the proportion was already more than 40%-60%. Although there was a rise in 2024, it still exceeded the upper limit for too long.

DOI: 10.54254/2754-1169/2026.LD35262

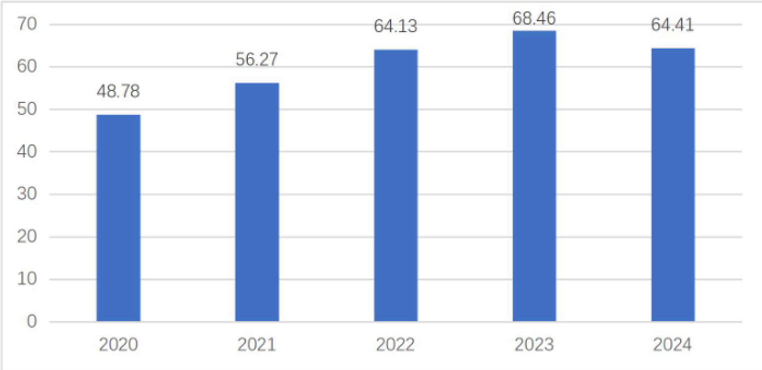

Figure 1. Trend chart of debt-to-asset ratio (2020-2024)

Data Source: East Money Network

3.3. Low internal financing

Spring Airlines has been increasing the proportion of internal financing in recent years, reaching 35 per cent in 2024, but it is still relatively small. The proportion of internal capital to total funds for some advanced countries' enterprises in the world is relatively high. Southwest Airlines in America has an internal financing ratio of over 70% and is far higher than that of Chinese companies. Spring Airlines' internal funds are relatively small compared with those of the local and foreign airlines. Therefore, in order to maintain continuous growth, Spring Airlines needs to improve its funding plan, increase the amount of internal funds, strengthen the "self-reliance" of the company, and thereby boost its competitiveness in the industry. A low internal financing ratio means that the company has insufficient endogenous accumulation capacity and is overly dependent on external financing, which not only increases financing costs but also weakens the company's risk resistance when facing external shocks.

4. Optimization of capital structure

4.1. Debt restructuring

Through restructuring of liabilities, the aviation company will change short-term, high-interest debts into long-term, low-interest loans to reduce capital expenses and improve debt structure. Good-case restructuring is a kind of dynamic fiscal management that may improve the rating of an airline by a credit assessment company. Better credit will reduce the amount of funds needed to borrow by gaining access to more favourable credit. Financial restructuring will also release some of the extra money for future use. The funds will be used to invest in new projects, expand the flight network, and implement other plans to expand the company.

4.2. Expansion of overseas financing

By expanding the sources of foreign capital, air carriers will be able to obtain funding from various places. Thus, it can reduce borrowing costs and strengthen the stability of finances by dispersing the concentration of debt in one place or pathway. These financiers can provide support in the form of funds, innovation, administrative skills, commercial entry, etc., to boost the airline's international market position and facilitate data exchange, engineering dialogue, cooperative market expansion,

DOI: 10.54254/2754-1169/2026.LD35262

and so on. These advantages will give the air carriers in all parts of the world more strength and flexibility for development.

4.3. Strengthening internal financing

Internal financing serves a necessary function for air carriers. Firstly, the aviation industry's economic situation, changes in fuel prices, fluctuations in market demand, etc., are all related to each other. Enhancing the scale of own financing can reduce external financing and improve the stability of funds. By increasing its own funds, the airline will be less reliant on further debt commitments. Internal financing generally serves the long-term development and stable operations of the company. It reinvests the accumulated profits and gradually depreciates the assets over time to fund the long-term development plan and technological upgrades of the airline to keep up with changes in the industry. Additionally, in the event of financial or economic problems, it may be difficult to obtain loans from others. Strengthen the airline's internal funds to use its reserved capital in the face of disruption and maintain normal business operations.

5. Conclusion

This study mainly explores the internal and external factors influencing corporate financing decisions, using Spring Airlines as a case study to analyze its current capital structure, financing channels, debt-to-asset ratio, and internal financing ratio. The findings reveal that Spring Airlines faces three major problems: a single source of financing channels, a high debt-to-asset ratio, and a low internal financing ratio. Accordingly, this paper proposes three optimization strategies: debt restructuring, expansion of overseas financing, and strengthening of internal financing. Due to the limited application of capital theory to specific circumstances, future research should broaden the theoretical scope, deepen conceptual understanding, and improve practical intuition to further advance corporate financing decision-making.

References

[1] Cao Yiyao. Study on the Motivation and Effects of China Southern Airlines' Convertible Bond Issuance [D]. Liaoning Technical University, 2024.
[2] Zhang Zhaoquan. Reflections on Spring Airlines' Outstanding Profitability [J]. Air Transport Business, 2025, (08): 16-23.
[3] Wu Yiting. Research on the Impact of New Leasing Standards on Financing and Investment Decisions of China Southern Airlines [D]. Jingdezhen Ceramic University, 2024.
[4] Li Yunhong. Research on Debt Risk Prevention of China Eastern Airlines under Low Profit Conditions [D]. Lanzhou University of Finance and Economics, 2025.
[5] Ma Yinyin. Impact of Lease Standard Changes on Listed Companies in the Aviation Industry [D]. East China University of Political Science and Law, 2022.
[6] Hu Zhehan. A Case Study on Cost Management of Spring Airlines from a Value Chain Perspective [D]. Chinese Academy of Fiscal Sciences, 2025.
[7] Liu Jiangtao. Research on Optimization of Financing Plans for Juneyao Airlines under New Leasing Standards [D]. Northwest Normal University, 2023.
[8] Tong Hangqi. Financial impact of new leasing standards on Spring Airlines and countermeasure analysis [D]. Nanjing University of Aeronautics and Astronautics, 2023.
[9] Yang SH. Impact of Public Crisis on Financing Methods in the Aviation Industry [D]. Yunnan University of Finance and Economics, 2023.
[10] Chen B. Impact of revised leasing standards on corporate investment and financing decisions [D]. Xiamen University, 2023.

DOI: 10.54254/2754-1169/2026.LD35262

[11] Liang Jing. Research on Operational Efficiency of China Southern Airlines [D]. Harbin University of Commerce, 2025.