

Financial Resilience and Strategic Adaptation: A Case Study of Air China in the Post-Pandemic Era

Linhan Chen *

School of accounting, Zhejiang University of Finance & Economics, Hangzhou, Zhejiang, China

* Corresponding author: Linhan Chen

Abstract: This paper analyses Air China's financial position, operational strategies and market performance in the context of the epidemic. By interpreting Air China's financial statements for 2022 and 2023, it reveals the company's financial challenges and coping strategies during the epidemic. In the face of a sharp decline in operating revenue and net profit, Air China successfully coped with the market impact by optimising its investment portfolio and improving operational efficiency, and achieved a significant narrowing of its net profit loss after the market gradually recovered. Although it is still facing challenges such as intensified market competition and rising costs in the future, with the domestic economic form improving, Air China can continue to improve its profitability by making continuous improvements in optimising the allocation of capacity and strengthening the construction of its aviation hubs.

Keywords: Air China; Financial Challenges; Operational Strategy; Market Recovery.

1. Introduction

Founded in 1988, Air China Limited is China's only flag carrier airline, headquartered in Beijing. Following a shareholding reform in 2004, the company was listed on the Hong Kong Stock Exchange and the London Stock Exchange in December of the same year. Air China has a well-developed domestic and international route network and operates more than 900 aircraft. Adhering to the Phoenix Spirit of 'Delivering Auspiciousness, Leading the Way, Surpassing the Self', the Company is committed to providing high-quality air services, while promoting digital transformation, optimising management innovation, and improving service quality and operational efficiency.

In recent years, Air China has faced multiple challenges. Firstly, the New Crown epidemic has had a huge impact on the global economy and the aviation industry, resulting in a significant drop in passenger demand on international routes, and Air China's revenue has been severely impacted by a significant reduction in ticket sales. Secondly, Air China's stake in Cathay Pacific suffered huge losses in 2020, and the return on its investment was hit hard. In response to the difficulties, Air China participated in Cathay Pacific's recapitalisation programme and continued to support its recovery. As the epidemic control posture shifted for the better and civil aviation industry restrictions were gradually lifted, Cathay Pacific began to recover from the second half of 2022 and turned a profit in the first half of 2023, with a profit attributable to shareholders of HK\$4,268 million. As the second largest shareholder of Cathay Pacific, Air China achieved a turnaround from investment loss to investment gain in the first half of 2023, with a gain of RMB1,279 million.

This report briefly analyses Air China's financial management, starting with an analysis of the overall financial position, followed by separate in-depth discussions of various aspects of internal financial analysis, including indicators such as leverage and liquidity. The report makes some recommendations on Air China's current major issues and financial situation, and summarises the company's operating and financing position. Air China is currently facing a number

of issues, including capacity contraction, supply and demand issues, challenges in the construction of international aviation hubs, low market share for home base carriers, and financial pressures, all of which are important reasons why the capital markets are not optimistic. However, Air China is also diversifying its own business, enhancing its market competitiveness through code-sharing co-operation and diversifying its subsidiaries and joint ventures. Air China should continue to seek new growth areas by increasing ancillary revenues and expanding partnerships, in addition to achieving good cost control by improving operational efficiency and adopting new technologies.

2. Background

2.1. Company Background

Air China is an aviation company with a long history and excellent reputation. Since its establishment, Air China has always been committed to providing safe, comfortable and convenient air transport services to passengers in China and around the world. As a leading company in China's civil aviation industry, Air China not only occupies an important position in the domestic route network, but also demonstrates strong competitiveness and influence in the international aviation market.

Air China has a large fleet of more than 900 modern aircraft as of 2024, including advanced wide-body aircraft such as the Boeing 787 Dreamliner and Airbus A350, as well as narrow-body aircraft such as the Boeing 737 and Airbus A320 series. These aircraft not only meet the travel needs of different passengers, but also ensure flight safety and comfort through continuous technological upgrades.

Air China continuously optimises its service processes and introduces cutting-edge aviation technologies, such as electronic boarding passes and self-service check-in systems, to improve efficiency and passenger satisfaction. At the same time, Air China ensures that passengers can enjoy a seamless travel experience by optimising flight schedules and upgrading ground services.

In terms of its internationalisation strategy, Air China has

established partnerships with more than 60 airlines worldwide, covering more than 300 destinations worldwide. As a founding member of the Star Alliance, Air China has further expanded its global network through code-share agreements and airline alliance co-operation, providing passengers with more route choices and more convenient connecting services.

Air China's international route network covers major cities in Asia, Europe, North America, South America, Africa and Oceania, serving more than 100 million passengers annually. Through continuous efforts and innovation, Air China is steadily moving towards its goal of becoming a world-class airline.

2.2. Industry Overview

2.2.1. Overview of the Air Passenger Transport Industry

The air passenger transport industry plays a vital role in the global economy and has experienced rapid development in recent years as the economy grows and people's living standards improve. Despite the impact of the epidemic on the industry, data from the 2023 Statistical Bulletin on the Development of the Civil Aviation Industry in 2023 released by the CAAC shows that China's civil aviation industry is making a steady recovery in a safe and orderly manner, with all production and operational data showing rapid growth, with significant year-on-year growth in passenger and cargo and mail traffic respectively.

The deepening application of scientific and technological innovation in the aviation industry, the development of unmanned manned aircraft systems and the integration of artificial intelligence and digital technology foreshadow the future direction of the aviation industry. Sustainability has become an important issue for the industry, especially the development and application of sustainable aviation fuels, aiming to achieve the goal of zero emissions in aviation by 2050. The air passenger market is highly competitive, with airlines enhancing their position by expanding into international markets and participating in airline alliances and code-share agreements.

Looking ahead, market demand for the air passenger transport industry is expected to continue to grow as the global economy recovers, and China's total air transport turnover is expected to exceed 250 billion tonne-kilometres by 2029, demonstrating the industry's enormous market potential and development prospects.

2.2.2. Overview of the Air Cargo Industry

The air cargo industry, a key link in the global supply chain, is experiencing significant market recovery and growth. In particular, in China, cargo and mail traffic reached 7.354 million tonnes in 2023, up 21% year-on-year and close to recovering to the 97.6% level of 2019, a growth largely attributed to the development of cross-border e-commerce and the rebound of the global economy. Improvements in infrastructure, such as the industry-wide capacity of airport cargo facilities of approximately 31 million tonnes, provided a solid foundation for the industry's development. Policy support from the Civil Aviation Administration (CAA) and the introduction of regulatory documents, such as the Measures for the Administration of Temporary Storage of Dangerous Goods Cargoes in Air Transport, further enhanced the level of service protection. The advancement of smart logistics has improved the efficiency and service quality of air cargo through digital transformation, and the guidance issued by CAAC in 2023 has accelerated the development of smart civil aviation construction.

Globally, air cargo demand continues to grow, with IATA data showing that global air cargo demand (in terms of freight tonne kilometres) grew by 10.3% year-on-year in March 2024, and international demand grew by 11.4% year-on-year. Technological innovations, especially the application of IoT and AI, are driving logistics management towards intelligence and automation, and the size of China's cross-border e-commerce export market is expected to grow to RMB 2.95 trillion in 2024.

3. Air China Financial Analysis 2023

3.1. Profitability

Table 1. A comparison of revenue, operating expenses, net profit and profit margin in 2022 and 2023

	2023 RMB'000	2022 RMB'000
Revenue	141,100,234	52,897,584
Operating expenses	(134,015,303)	(91,688,710)
Net profit	7,084,931	(38,791,126)
Profit margin	5.02%	-73.33%

2022 was a challenging year for Air China, which was mainly affected by the epidemic, resulting in operating revenue and net profit being hit hard.

- **Operating revenue:** RMB 52.898 billion, a year-on-year decrease of 29.03 per cent.

- **Air transport revenue:** RMB48.381 billion, of which RMB38.296 billion was passenger revenue and RMB10.085 billion was cargo revenue.

- **Operating expenses:** RMB91,716 million, a decrease of 3.93% year-over-year.

- **Loss attributable to shareholders:** up to RMB38,617 million, which is a decrease from 2021.

Air China has endeavoured to maintain smooth and orderly operations in 2022 through various measures despite the severe impact of the epidemic. The Company invested in and improved safety, services, reforms and digital transformation.

In 2023, Air China's operations improved and losses were significantly reduced.

- **Operating revenue:** RMB 141.100 billion, a year-on-year increase of 166.74 per cent

- **Operating cost:** RMB134.015 billion.

- **Net profit attributable to parent:** a loss of RMB1,046 million, a significant reduction from the loss in 2022.

Air China's improved performance in 2023 was mainly due to the adjustment of domestic epidemic prevention and control measures and the gradual recovery of market demand. The Company achieved a significant reduction in losses by improving quality and efficiency, reducing costs and cutting expenses. Meanwhile, the gradual recovery of international routes also contributed to the company's improved performance.

1) Income situation

In 2023, Air China achieved significant growth in operating revenue, reaching RMB141.100 billion, an increase of 166.74% year-on-year. This achievement was attributable to market recovery, with the domestic aviation market picking up rapidly as the epidemic eased, and a significant increase in

passenger traffic especially during the summer peak season. Air China expanded its effective investment by increasing its capacity investment, especially in the domestic market, and by improving the efficiency of utilising its superior aircraft types. Meanwhile, Air China actively responded to the national strategy to promote the resumption of flights and increase in flights on international routes, and by the end of the year, the number of international and regional weekly flights had been restored to 74% of the same period in 2019. In addition, improvements in passenger load factor and fare levels, as well as growth in belly cargo revenue, contributed to revenue growth. Air China also further improved its overall revenue level by strengthening cost control and revenue management, enhancing its service quality management capabilities, and accelerating the digital transformation of its services, including the construction of an in-flight catering reservation management system and the optimisation of mobile applications. The positive effect of these combined factors drove Air China's significant increase in operating revenue in 2023.

2) Gross profit margin and expenses

Air China's gross profit margin and expense profile in 2023 show some volatility and changes. According to the data in the annual report, Air China's gross profit margin was 5.02% in 2023, down from 16.06% in 2019, indicating that the company's profitability has not yet fully recovered to the pre-epidemic level. The decrease in gross profit margin was mainly due to the decrease in passenger seat ratio and aircraft daily utilisation rate from 2019, and although passenger kilometre revenue improved from 2019, it was not sufficient to make up for the impact of the decrease in the above two metrics.

In terms of expenses, Air China's operating costs will be RMB134,015 million in 2023, representing a year-on-year increase of 61.83%, which is mainly due to the recovery of production activities resulting in higher increases in variable cost items such as jet fuel costs, landing and parking fees, and catering costs. In addition, the company's net foreign exchange loss in 2023 was RMB1.035 billion, a year-on-year decrease of RMB3.053 billion, showing the company's success in managing exchange rate fluctuations.

Air China increased its capacity investment in 2023, especially in the domestic market, while passenger traffic on international routes also grew as the international market gradually opened up, driving a significant increase in operating revenue. However, gross margins were impacted by declining passenger and daily utilisation rates, as well as rising costs. In addition, the Company achieved a significant improvement in operating efficiency through measures such as quality enhancement and cost reduction. Despite this, the gross profit margin still fell short of the pre-epidemic level, reflecting the challenges faced by the Company in the recovery process

3.2. Company Profile

3.2.1. Gearing

In 2022, Air China faced severe financial challenges, with its gearing ratio as high as 92.69%, reflecting the company's high financial leverage and heavy debt burden in the year. Meanwhile, the company's operating revenue and net profit were hit hard by the epidemic, resulting in a negative gross margin (-56.55%), further exacerbating the financial pressure.

Going into 2023, Air China showed positive changes in its financial performance, with the gearing ratio declining to

89.48%, indicating that the company had made progress in optimising its capital structure and financial risk management. Gross profit margin also improved, reaching 5.02%, which, although still short of the pre-epidemic level, shows the company's efforts to improve profitability. The significant growth in operating revenue (up 166.74 per cent year-on-year) and the sharp reduction in net loss (from RMB38.619 billion to RMB1.046 billion) further demonstrated the company's effectiveness in market recovery and cost control. Nonetheless, Air China still needs to make continued efforts to improve profitability and enhance financial soundness in order to achieve long-term sustainable growth.

3.2.2. Current Ratio [1] [2]

Table 2. Current Ratio

Vintages	Type of report	Current ratio
2022	Annual Report	0.24
	Third Quarterly Report	0.30
	Interim Report	0.37
2023	First Quarterly Report	0.28
	Annual Report	0.29
	Third Quarterly Report	0.34
	Interim Report	0.39
	First Quarterly Report	0.40

2022 Analysis:

Air China's current ratio in 2022 is low overall, averaging approximately 0.30 for the year. This indicates that Air China's current assets can only cover approximately 30 per cent of its current liabilities in 2022, resulting in a weaker short-term solvency position. Looking at the quarterly data, the current ratio peaked at 0.37 in the middle of the year and then declined, which may be related to seasonal factors or financial activities in specific periods.

2023 Analysis:

Air China's current ratio improved in 2023, averaging around 0.34 for the year. Although still low, it improved compared to 2022, showing some improvement in financial health. The current ratio peaked at 0.34 in the third quarter of 2023, indicating that it was in that quarter that Air China had the strongest short-term debt servicing capacity.

Comparisons and Trends:

Comparing the two years of data, Air China's current ratio improves in 2023, indicating that the company has made some progress in improving its short-term solvency.

Despite the improvement in the current ratio, it is still below 1, which means that Air China's current assets are still insufficient to fully cover its current liabilities, and short-term debt servicing pressure still exists. The Company needs to continue to optimise its asset and liability structure and enhance its cash flow management to further improve its short-term solvency. [3] At the same time, the Company will continue to pay attention to industry dynamics and the macroeconomic environment, and flexibly adjust its business strategies to cope with possible risks and challenges.

3.3. Incident Analysis

3.3.1. Epidemic

The New Crown epidemic had a significant impact on Air

China's financial position. Before the epidemic, Air China's annual net profit peaked at 7.336 billion yuan. However, after the outbreak of the epidemic, Air China's financial position deteriorated dramatically.

In 2020, Air China reported an annual loss of RMB 14.409 billion, a year-on-year decline of 324.85 per cent, with passenger revenues of RMB 55.727 billion, a year-on-year decrease of RMB 68.798 billion, while cargo revenues were RMB 8.553 billion, a year-on-year increase of RMB 2.821 billion. [4] In 2021, Air China reported an annual net loss of RMB 16.642 billion, a year-on-year expansion of 15.50 per cent, with operating revenues of RMB 74.532 billion yuan, an increase of 7.23% year-on-year. 2022, Air China's annual net loss further expanded to 38.619 billion yuan, making it an unprecedented low period for the civil aviation industry. However, in 2023, Air China began to show signs of recovery, achieving a net profit of 4.242 billion yuan in the third quarter, which was the first time since the outbreak of the epidemic that Air China announced a turnaround in losses to profits, and the amount of profit in a single quarter has reached 66% of the full-year profitability level of 2019. In the first three quarters of 2023, Air China achieved revenues of 105.477 billion yuan, a year-on-year increase of 150.61%, with a net profit of 791 million yuan, while still recording a net loss of 3.450 billion yuan in the first half of the year.

Despite the huge impact of the epidemic on Air China's international routes, as the CAAC promotes the orderly recovery of international passenger flights, the recovery rate of the overall international flight volume by the end of 2023 could reach about 70% of that of 2019. Overall, Air China experienced huge losses during the epidemic, but as the market gradually recovers, its financial position is beginning to show signs of improvement.

3.3.2. Injection of funds into Cathay Pacific Airways

During the 2020 New Crown Pneumonia epidemic, Air China made a strategic capital injection into Cathay Pacific through a series of capital manoeuvres. Relevant Air China subsidiaries subscribed for 750,756,342 Cathay Pacific Rights Shares at HK\$4.68 per share, for a total consideration of approximately HK\$3,514 million. The subscription maintained Air China's shareholding in Cathay Pacific at 29.99 per cent. Even assuming that all the Rights Shares are taken up and the Warrants are converted in full, Air China's shareholding would only fall to 28.17 per cent.

In addition, Cathay Pacific implemented a HK\$39 billion recapitalisation programme in 2020, in which the Hong Kong SAR Government provided a HK\$7.8 billion bridging loan, issued HK\$19.5 billion of preference shares and raised HK\$11.7 billion through a rights issue. Upon completion of the recapitalisation, Air China, Swire Pacific, Qatar Airways and Aviation 2020 Limited on behalf of the Hong Kong SAR Government hold 28.17 per cent, 42.26 per cent, 9.38 per cent and 6.08 per cent of Cathay Pacific respectively.

Not only did Air China vote in favour of all relevant resolutions at the General Meeting in this recapitalisation, it also ensured that its shareholding in Cathay Pacific was not diluted through irrevocable undertakings. Cathay Pacific began a gradual recovery in the second half of 2022 as the outbreak control posture shifted for the better and civil aviation industry restrictions began to be gradually lifted. [5] By the first half of 2023, Cathay Pacific had achieved a significant turnaround in profitability, with a profit attributable to shareholders of HK\$4,268 million, which was significantly ahead of the full year pre-epidemic level. In the

second half of the year, Cathay Pacific's profit once again surpassed the first half level, reaching HK\$5,521 million. As a result of Cathay Pacific's good performance, Air China, its second largest shareholder, realised a turnaround from investment losses to investment gains in the first half of 2023, with a gain of RMB1,279 million. In addition, Cathay Pacific's performance rebounded in the first quarter of 2024, with passenger traffic and cargo carried increasing by 55.7 per cent and 11.1 per cent, respectively, compared to the same period last year, resulting in a further improvement in Air China's return on investment.

4. Suggestion

4.1. Optimising Capacity Allocation and Enhancing Operational Efficiency

Under the current situation of excess capacity in China's aviation market, Air China is facing the dual pressure of optimising capacity allocation and improving operational efficiency. To meet this challenge, Air China should continue to keep a close eye on the market demand for international routes. Recent data shows that passenger traffic on Air China's international routes has surged more than 10 times year-over-year, fully demonstrating the market's vitality. Therefore, Air China should increase its capacity on international routes in order to match the growing demand for international travel.

Despite the strong performance on international routes, Air China's core market remains domestic routes. Although Air China invested 6.3% less in domestic passenger capacity in April 2024 compared to 6.3% in the same period last year, passenger turnover rose 3.0% against the trend. This means that there is still room to optimise the operational efficiency of domestic routes. In view of this, Air China can further improve the operational efficiency of its domestic routes by adjusting flight schedules and improving flight punctuality.

In addition, Air China should also strengthen its passenger-cargo linkage mechanism. Data showed that in December 2023, Air China's cargo capacity investment and cargo and mail turnover both achieved over 100% year-over-year growth, highlighting the huge potential of passenger and cargo intermodal transport. Air China can further increase its cargo load factor by leveraging the scale advantage of passenger-aircraft cargo flights, through refined cargo allocation and high-quality cargo services.

Air China has already achieved significant results in improving passenger and cargo load factors. In April 2024, the average passenger load factor reached 78.8%, an increase of 8.2 percentage points compared to the same period last year. Going forward, Air China can continue to further drive passenger load factor growth through precise marketing strategies and optimised fare structures. Meanwhile, Air China should accelerate the pace of digital transformation, strengthen its data asset management capabilities, ensure data security, and develop a comprehensive data asset centre to enhance the precision and science of operational decision-making in a data-driven manner.

Air China should continuously improve its service quality to enhance customer satisfaction and loyalty. This includes, but is not limited to, perfecting the service management system, optimising the air travel process, enhancing flight regularity and launching special service products to improve passengers' travel experience in all aspects. Through these initiatives, Air China can further enhance its operational efficiency and consolidate its market position.

4.2. Strengthening of International Aviation Hubs

Against the backdrop of increasing competition in the global aviation industry, it is particularly important for Air China, as China's sole flag carrier airline, to strengthen its international aviation hub. [6] In recent years, Air China has made significant progress in expanding its international routes and investing in capacity. In 2023, Air China's international route revenue passenger kilometres reached 6,053.6 million, a year-on-year increase of 4.7 per cent, demonstrating a strong recovery in the international market. However, Air China still needs to further enhance the competitiveness of its international aviation hubs in the face of growing international passenger demand and a complex market environment. [7]

Recommendations for Air China to strengthen its international aviation hub and increase its market share are set out below:

Air China should actively seek to deepen its co-operation with major airports at home and abroad, especially to strengthen the construction of international aviation hubs such as Beijing and Shanghai. [8] By continuously optimising its route network and improving the quality of its flight services, it will increase the number of international routes and the frequency of flights in order to attract more international passengers and cargo customers and further consolidate and expand its position in the international aviation market. [9]

In response to the current low market share of home base carriers, Air China should develop targeted marketing strategies. For example, it should introduce special services that meet the needs of travellers, as well as attractive incentives to enhance travellers' loyalty and satisfaction. In addition, big data analysis can be used to pinpoint market demand and formulate personalised marketing strategies to further increase market share. [10]

Air China should actively seek co-operation opportunities with other airlines to jointly develop the market and expand its market share through code-sharing and route affiliation. At the same time, it should actively participate in international aviation alliances to enhance Air China's competitiveness in the international aviation market by sharing resources and complementing the strengths of alliance members.

4.3. Enhanced Financial Management

Air China's cash flow position in 2022 and 2023 revealed some key financial developments. In 2022, Air China generated a net cash outflow from operating activities of RMB 16,762 million, which was a decline from the net cash inflow in 2021, reflecting the pressure on operating activities. By 2023, the situation improved, with operating activities generating a net cash inflow of NT\$35.418 billion, thanks to a significant rise in operating income. In terms of investing activities, Air China's net cash outflow in the first half of 2023 was NT\$10,550,533 thousand, an increase from 2022, which was related to Air China's increased capital expenditures during the year. For financing activities, Air China's net cash inflow from financing activities was 65,076,500 thousand in 2023, an increase from 2022, showing the company's positive progress in raising funds. Air China needs to closely monitor its cash inflows and outflows to ensure that it has sufficient cash reserves to cope with operational needs and potential market fluctuations, especially to maintain financial

flexibility and robustness in the face of unforeseen events

In 2021, international oil prices showed a clear upward trend. At the end of 2021, the main contracts for light crude oil futures on the New York Mercantile Exchange and Brent crude oil futures in London closed at US\$75.21 and US\$77.78 per barrel, respectively, representing an increase of approximately 55 per cent and 50 per cent, respectively, compared to year-end 2020. [11] Air China can adopt a series of financial derivative instruments to effectively hedge management in the face of oil price volatility. Firstly, by purchasing crude oil futures contracts, Air China is able to lock in future fuel costs and reduce the risk of price increases. Secondly, call options were utilised to provide the company with a protection mechanism in case oil prices rose beyond expectations. At the same time, by setting up a jet fuel price cap option strategy, it was able to protect the cost cap while maintaining a certain degree of market flexibility.

5. Summary

This report provides an in-depth discussion of Air China's financial management, operational strategies and market performance under the impact of the epidemic through a detailed case study of the airline. In the face of the continued impact of the Xinguang epidemic, Air China encountered unprecedented financial challenges, with operating revenue and net profit plummeting. With the adjustment of domestic epidemic prevention and control measures and the gradual recovery of market demand, Air China demonstrated a strong momentum of recovery. In 2023, Air China achieved significant growth in operating revenue and a significant narrowing of its net profit loss, demonstrating the Company's positive results in improving quality, increasing efficiency and reducing costs and expenses. In addition, Air China's successful investment in the recapitalisation of Cathay Pacific brought significant investment income, further enhancing the Company's financial soundness. Although Air China still faces many challenges in its recovery process, such as intensified market competition and rising costs, the resilience and flexibility demonstrated by the Company has laid a solid foundation for its sustainable development in the future. In the future, Air China can further improve its profitability and consolidate its market position by taking a number of measures, including optimising capacity allocation, improving operational efficiency, strengthening the construction of international aviation hubs and enhancing financial management.

Air China has demonstrated strong adaptability in the face of adversity, successfully coping with the impact of the epidemic through a series of effective measures and achieving significant results in market recovery. In the future, with the further recovery of the global economy and the continued rebound of the aviation market, Air China is expected to continue to improve its profitability and achieve higher quality development.

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