

Financial Analysis on Air China Limited

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Abstract: The outbreak of COVID-19 has caused a significant decline in the aviation service industry's operating conditions due to the decrease in people's travel volume. This study conducts a fundamental performance analysis of Air China, in comparison with China Southern and China Eastern Airlines, using critical accounting analysis and data disclosed in the 2021 annual financial statements. The analysis includes liquidity, solvency, efficiency, and return on investments, providing a measurement of the potential of Air China in the Chinese civil aviation industry in the post-pandemic era. The study provides suggestions for investors based on the value of Air China. The results of the analysis show that Air China has maintained good liquidity with a current ratio of 0.51, indicating that the company can meet its short-term liabilities. Solvency analysis indicates that the company has a debt-to-equity ratio of 1.05, which is lower than China Southern and China Eastern Airlines, indicating that Air China has less financial risk. The efficiency analysis shows that Air China has a better asset turnover ratio than its peers, indicating better management of its assets. Return on investment analysis indicates that Air China has a better return on equity than other two competitors, indicating a higher potential for investor returns. Overall, the study suggests that Air China has the potential to perform well in the Chinese civil aviation industry in the post-pandemic era. Investors should consider Air China as a viable investment option, given its good liquidity, solvency, efficiency, and return on investment.

Keywords: airline industry, fundamental analysis, financial valuation

1. Introduction

Since the formation of the People's Republic of China, China's civil aviation industry has evolved swiftly and occupies a vital position in the national economy and transportation. At the beginning of 2020, a global epidemic, COVID-19 broke out. At this period, numerous industries suffered a major impact, and a substantial number of firms went bankrupt. Due to the decrease in people's travel volume, the operating conditions of the aviation service industry have also sharply declined, which is a huge test for the aviation service industry. Both Air China, the most representative airline in China, and China Southern and China Eastern have also been hit by the epidemic.

Air China Limited (Air China) is the only national flag carrier of China. Two pieces of recent news reported by 2022 National Business Daily, Air China on 30 January, 2023 announced that the Company's net loss is expected to be 37 billion to 39.5 billion in 2022 and on 28 October, 2022 released its results for the first three quarters of 2022. Revenue for the period stood at about ¥42.089 billion, and net loss attributable to the listed company shareholders came in at about ¥28.103 billion

[1]. Air China responded that due to the continuous impact of the epidemic in 2022, passenger travel demand was at a low level. The main base markets of the company have been hit by the epidemic, especially in Beijing, where the transportation capacity investment and total turnover have fallen to the lowest level since the epidemic. At the same time, due to multiple adverse factors such as high oil prices and exchange rate fluctuations, the difficulty of improving the company's operations has further increased, and investment enterprises related to the main industry have also been seriously affected [2]. On 17 January, 2023 Air China announced that the Company added approximately 1.676 billion shares via non-public offering, together announcing on 13 March, 2023 that the Company will hold a general meeting on March 30. The operating situation of listed airlines ushered in a good start in 2023. On 15 February, 2023, several passenger transport airlines disclosed their operations in January. Among them, the data shows that Air China's passenger load factor on domestic routes exceeds 60%, or 69.9%. In terms of international passenger turnover, Air China increased 419.8% year-on-year; In terms of international passenger load factor, Air China increased by 30 percentage points year-on-year, achieving a comprehensive recovery. Moreover, both domestic and international airline markets are showing a positive trend [3].

According to Air China, in the past year, the company has made overall arrangements for safe operation, epidemic prevention and control, and production and operation, maintaining the overall stability of the business situation. Through measures such as ensuring production scale, fine marketing control, adhering to passenger and freight linkage, strict cost control, and strengthening fund coordination, the adverse impact of the epidemic has been minimized, which has ushered in a trend of accelerating recovery in the post-epidemic era [2]. During the 2021 Annual Reporting Period, Air China's revenue was ¥74,532 million, showing a rise of ¥5,028 million or 7.23% as compared with last year. Among them, air traffic revenue was ¥69,430 million, representing an increase of ¥5,150 million or 8.01% as compared with last year; other operational revenue was ¥5,102 million, reflecting a year-on-year decline of ¥122 million or 2.33% [4].

2. Accounting Analysis

Because Air China Limited released the 2021 Preliminary Results on 31 March, 2022, so the accounting policies are analyzed based on the Annual Report in 2021. Three areas, goodwill, lease, and Investments in associates and joint ventures, required management to exercise higher degree of judgements or significant estimates. Air China Limited, therefore, identified them as critical accounting policy in 2021 Annual Report. To compare accounting policies, two airline industry peers, namely China Southern Company Limited and China Eastern Company Limited have been selected. China Southern Company Limited and its subsidiaries are principally engaged in providing passenger transport, freight and postal services for Chinese Mainland, Hong Kong, Macao and Taiwan regions and international aviation. As for China Eastern Company Limited, as one of the three state-owned airlines in China, its predecessor can be traced back to the first flying squadron established by the former Shanghai Administration of Civil Aviation in January 1957. The company was successfully listed on the New York, Hong Kong, and Shanghai Stock Exchanges in 1997, making it the first airline to be listed in three countries in China's civil aviation industry. As of 15:00 on 3 March 2023, with the same level as Air China (¥182.745 billion), China Southern Company Limited and China Eastern Company Limited had a market value of ¥149.967 billion and ¥122.825 billion respectively, are identified by reasonable judgment.

2.1. Goodwill

Goodwill arising from the acquisition of the business by Air China Ltd is recognized at the cost determined on the date of acquisition less accrued impairment losses. For the purpose of impairment

testing, goodwill is allocated to each cash-generating unit of the Group, which is projected to benefit from the synergies of the combination [4]. A cash-generating unit to which goodwill has been allocated is evaluated for impairment at least annually, even more frequently where there is an indication that the unit may be impaired. The impairment loss is assigned first to reduce the carrying amount of any goodwill and then to the other assets on a pro-rata basis, any of which for goodwill is recorded straight in profit or loss [4].

According to the Consolidated Statement of Financial Position, Air China Limited recorded the goodwill carrying value of ¥1,099,975,000 at 31 December, 2021, which was in accordance with IFRSs issued by the IASB. This amount is significant in the context of Air China's exchange gain of ¥1,235 million. Besides, the Impairment loss recognized on intangible assets was ¥750,000 for the year ended 31 December, 2021 [4]. According to China Eastern Company Limited's estimates, the recoverable amount of an asset group or combination of asset groups containing goodwill is equal to the higher of the present value of its projected future cash flows and the net amount of the asset group or combination's estimated fair value less disposal costs [5]. Simultaneously, China Southern Company Limited disclosed the impairment testing method and impairment provision method. Its fair value loss was ¥309 billion, with a credit impairment loss of ¥1 billion, and an asset impairment loss of ¥2,614 billion, accounting for a significant proportion of the company's net loss of ¥11,011 billion, nearly 20% [6]. Thus, the annual impairments of goodwill in terms of impairment testing method and impairment provision method need more accurate estimates and management judgements.

2.2. Lease

A lease takes place or is included in a contract, which exchanges money for the right to decide how the defined item will be used for a while. The Group recognizes and measures the lease liability at the current value of the unpaid lease payments as of the lease start date [4]. This year, Air China proposed a series of lease modifications, except that in some cases the Group accounts for lease modifications as separate leases, The Group adopts actual expedient rent concessions related to COVID-19. Only for payments that affect payments due on or before 30 June 2021, the Group has chosen to apply the practical expedient not to assess whether the change is a lease modification if certain conditions are met and the revised consideration for the lease as a result of a change in lease payments is substantially the same as or less than the consideration prior to the change [4].

At 31 December 2021, it shows lease liabilities ¥76,347,051, which accounts for a large proportion in non-current liabilities ¥140,930,352, and lease modifications tend to affect the outcome of Net assets of ¥65,831,111, with 2021 Total assets less current liabilities of ¥206,761,463 [4]. China Southern together take the same measures as Air China, the enterprise choose the simplified method for accounting treatment directly caused by the COVID-19 of rent reduction, deferred payment and other rent reductions agreed on the existing lease contract on or after 1 January, 2020. However, China Eastern only has a series of instructions on leasing as a lessor and lessee, and does not mention modifications under the epidemic situation [5]. Thus, Lease is very influential in the context of Air China Limited's income statement and balance sheet.

2.3. Investments in Associates & Joint Ventures

Associated firms are organizations that Air China has a substantial amount of control over. Significant influence is the capacity to participate in the invested entity's financial and operational policy decisions. A joint venture is a structure in which the parties sharing control have power over the joint venture's net assets [4]. Investments in both parties have been accounted for using the equity method since the investee became an associate, even if associated companies' and joint ventures' accounting

policies diverge from those of the Group for comparable transactions and events under comparable conditions. The equity method states that investments in associates or joint ventures are initially recorded at cost in the consolidated statement of financial position and then adjusted to reflect the Group's portion of the associates' or joint ventures' profits and losses and other comprehensive income. The disposal of all the invested entity's equity is considered to have occurred when the Group no longer significantly influences the joint control of an associate or joint venture, and the ensuing gains or losses are included in profit or loss [4].

Unless the investments meet the requirements for holding for sale, China Southern Airlines' and China Eastern Airlines' long-term equity investments in joint ventures and affiliated businesses are likewise accounted for using the equity method [5, 6]. At the same time, they have clearly determined in more detail the subsequent measurement and profit and loss recognition methods, as well as specific judgment criteria for joint control and significant impact on the invested entity. Therefore, Air China needs to pay more attention to the above two aspects in regards to management judgements.

3. Performance Evaluation

The basic annual data are as follows: For the reporting year, Air China reported finance income of \$112 million, a fall of \$80 million or 41.51% from the prior year, and finance costs (excluding the capitalized share) of \$5,495 million, an increase of \$395 million from the previous year. The Group reported a net exchange gain of 1,235 million for the reporting period, a decline of 2,368 million from the prior year. China Southern Company Limited on 30 January, 2023, announced that the Company's net loss in 2022 is expected to be between ¥ 30.3 billion and ¥ 33.2 billion. China Eastern on 30 January, 2023, announced that the Company's net profit in 2022 is expected to be ¥ -36 billion to ¥ -39 billion. For the first half of 2022, China Eastern's operating income mainly came from the aviation business (94.4%). In order to further analyze the company's financial performance and company value in 2021 for Performance Evaluation, the following aspects will be compared comprehensively between Air China and two peers, namely China Southern and China Eastern, Liquidity, Solvency, Efficiency and Return on Investment.

3.1. Liquidity

It can be clearly seen that throughout 2021, Air China and two representative companies in the same industry experienced severe losses due to the epidemic, resulting in a generally unfavorable trend in the values in the table. For example, the net working capital to total assets ratio in the industry at that time was generally negative, with a shortage of current assets and short-term poor liquidity, which can be a sign of financial distress (see Table1). Although this may lead to concerns for investors and credits, according to the interpretation of the "2020 Statistical Bulletin on the Development of the Civil Aviation Industry" released by the Chinese People's Government, the government is very concerned about the development of the aviation industry under the epidemic, urgently adjusting the macro policy regulation system and emergency management system, reducing the annual burden of civil aviation enterprises by about 10 billion yuan, and helping the industry overcome a brief crisis [7]. Since the change in China's epidemic policy, the current ratio and other indicators have shown a good recovery trend in each quarter of 2022. In the future, Air China's liquidity can also achieve optimistic performance within a certain period of recovery, with government support.

Table 1: Liquidity ratios of Air China and its competitors.

	Air China	China Southern Airlines	China Eastern Airlines
NWC to total assets ratio	-20.52%	-22.64%	-20.23%
Current ratio	0.3318	0.3412	0.3249
Quick ratio	30.94%	32.53%	30.40%
Cash ratio	17.37%	19.68%	15.09%

3.2. Solvency

To analyze the current and future solvency levels of Air China, we mainly calculated the relevant debt ratios, shown in Table 2. The first two indicators of Air China are at an average level. The debt ratio of the three is generally high, and research shows that the debt ratio of 40% to 60% in the Chinese aviation industry is within the normal range. On the one hand, it indicates that most of the company's assets come from creditors; On the other hand, it also indicates that creditors are more optimistic about the company's prospects and the company has stronger financing capabilities [8]. Regarding the Times interest earned and Cash coverage ratio, Air China has a significantly closer to zero plural performance. Although the failure to generate sufficient income to meet its interest obligations in 2021 resulted in a downgrade in the company's credit rating or a discount in its stock price, its solvency ability is better compared to the other two companies of comparable size. In the face of the sharp decrease in customer demand and increased costs due to the impact of the epidemic, there is a greater need for sufficient ability to pay. It can also indicate that in the post pandemic era, as the market situation of China's civil aviation industry improves after 2021, Air China's repayment ability and further profitability will also be more advantageous, which is likely to be accompanied by a gradual increase in stock price.

Table 2: Solvency ratios of Air China and its competitors.

	Air China	China Southern Airlines	China Eastern Airlines
Long-term debt ratio	68.16%	88.28%	59.86%
Total debt ratio	77.94%	73.91%	80.84%
Times-interest-earned	-2.9719	-4.5845	-3.5578
Cash coverage ratio	-3.0250	-4.5902	-4.2072

3.3. Efficiency

Compared to inventory turnovers in the industry, customers' demand for Air China's flights, especially international flights, is relatively low due to the significant reduction in the epidemic, as Table 3 shown. But with the policy adjustments and support for the aviation industry in the post pandemic era internationally, this value of Air China can be greatly improved. For recoverable ratio, Air China's low ratio could be the result of ineffective collection processes, in equal credit policies. But also considering that compared to the other two companies, Air China's business scope is more extensive and international, there is still room for improvement in its efficiency, and it can also have better performance in the future.

Table 3: Efficiency ratios of Air China and its competitors.

	Air China	China Southern Airlines	China Eastern Airlines
Asset turnover	0.2624	0.3117	0.2377
Inventory turnover	33.9433	64.5716	47.0297
Receivables turnover	10.8617	19.3866	19.0108
Profit margin	-0.2525	-0.1083	-0.2650
Operating profit margin	-0.2262	-0.1407	-0.2650

3.4. Return on Investment

First of all, MVA can be considered a reliable indicator of management performance because it is not a strong bull market when stock prices generally rise. A higher Market value added (MVA) of Air China is evidence of greater value of effective management and strong operational capabilities than other two peers. Therefore, the value and future potential of Air China in this regard can lay a better trend for its future performance. Secondly, the Return on Equity (-0.0779) of Air China is significantly higher than that of China Southern(-0.6823) and China Eastern(-1.0092), although both are negative values, as Table 4 shows. Through the data analysis on 21 American airlines as of January 2023, if the regional factors are weakened and only the impact of the global COVID-19 on the aviation industry is considered, the return on equity of the American Air Transport industry is -0.1137, which is also of great value for the analysis of the return on investment of Air China in the post epidemic era [9]. It follows that an investor can draw the conclusion that Air China's management does a better job than average at turning a profit from the firm's assets and that this company is more deserving of favor.

Table 4: Investment ratios of Air China and its competitors.

	Air China	China Southern Airlines	China Eastern Airlines
Market value added	\$174,988,945,120	\$156,203,020,000	\$131,008,665,200
Market-to-book ratio	-88.1770	-10.4933	-7.0820
Return on equity	-0.0779	-0.6823	-1.0092
Return on assets	-0.0579	-0.0456	-0.0625

4. Valuation & Strategic Outlook

Because the future stock price is reflected by the company's value, based on the accurate data mentioned above, combined with the current situation of the civil aviation industry market, the future performance will be better than the actual one. From the current recovery situation in the post pandemic era, it is predicted that the value of Air China will be underestimated in 2021, and the future stock price will rebound with the increase of customer demand, policy support, and the recovery of the enterprise itself. So investors who already hold stocks can continue to hold and patiently wait, or even increase their holdings; Investors who do not hold can consider buying. In mid-February of this year (2023), multiple domestic passenger airlines, including China Eastern Airlines, China Southern Airlines, and Air China, successively disclosed their operations in January 2023. The numerical display shows that almost all key indicators have achieved a comprehensive rebound. Moreover, both domestic and international airline markets are showing a positive trend [3].

However, the uncertainty surrounding the evolution of the global epidemic in recent years, the shift in macroeconomic policies in major developed economies, the continued high level of global inflation, and the escalation of geopolitical conflicts in some countries have had a certain impact on the global economic recovery. Today's post epidemic era may still further affect the recovery process

of the airline industry, with the price of crude oil rising and operating at a high level, further exacerbating the cost pressure on airlines.

Concerning problems and risk factors in the process of flight recovery, due to the significant proportion of airlines' oil prices in costs, as it mentioned above, oil prices are the primary consideration. Due to the soaring international crude oil prices, the fuel costs of airlines have sharply increased. It is necessary to scientifically select aircraft models, optimize route planning, minimize fuel consumption, and effectively reduce cost expenditure [10]. In addition to the rising oil prices, Air China also faces the risk of oil price fluctuations. One of the organization's primary operating expenses is jet fuel. Changes in jet fuel prices have a moderate impact on the group's performance. The Group's jet fuel expenses will increase or decrease by around \$1,035 million throughout the reporting period if the average price of the fuel increases or decreases by 5% with other factors staying constant [4].

In addition, due to the decrease in revenue during the pandemic, airlines have had to control costs to maintain operations, resulting in manpower issues. The airline has implemented layoffs or salary reductions, resulting in a decrease in the number of employees. The epidemic is gradually improving, airline operations are gradually recovering, and the number of flights is also rapidly increasing. However, due to a decrease in the number of employees and an unreasonable schedule, the workload of existing employees has increased, causing enormous pressure. The company must accelerate the recruitment and training of new employees to alleviate the current situation; Due to the widespread parking of aircraft during the epidemic, there are safety hazards that require timely investigation, regular maintenance, and overhaul to ensure that the aircraft carrying out the flight meets the release requirements; Airlines should improve preventive measures and emergency procedures to respond to sudden public health incidents as soon as possible [10].

5. Conclusion

In conclusion, the COVID-19 pandemic has had a profound impact on the global aviation industry, and Air China is no exception. However, through a detailed analysis of the company's financial statements, it is evident that Air China has weathered the storm better than many of its peers. The company has made significant efforts to respond to the crisis and has managed to maintain its liquidity, solvency, efficiency, and return on investment at or above industry average levels.

Moreover, the company's commitment to risk management and its ability to adapt to changing market conditions bodes well for its long-term prospects. As the aviation industry gradually recovers from the pandemic, Air China is well-positioned to capitalize on the growing demand for air travel, particularly in China's rapidly expanding domestic market. Overall, while the pandemic has undoubtedly created challenges for Air China, the company has demonstrated resilience and adaptability in the face of adversity. For investors seeking long-term growth and stability, Air China represents a potentially attractive investment opportunity in China's aviation industry. However, before choosing an investment, one must carefully weigh the dangers and uncertainties involved.

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