

The Impact of Covid 19 on the American Airlines Industry

Junrong Li

¹Fu Foundation School of Engineering and Applied Science, Columbia University, New York.

*Corresponding author. Email: jl5786@columbia.edu

ABSTRACT

As one of the most impacted industries by COVID-19, the airline industry has experienced significant changes in the past one and a half years due to the outbreak and rapid spread of the coronavirus. The top 3 airline companies in America, which are Delta Airlines, United Airlines, and Southwest Airlines, were selected as samples to get a glimpse of the impact of COVID-19 on the airline industry during the pandemic. By analyzing the interim financial statements of each company, the article focused on the change of the main representative financial indicators during each season in 2020 and 2021 to observe the financial effect of COVID-19 and the recovery of the companies. To get through this critical period, the companies took several actions to increase liquidity, improve their financial position, and reduce costs in a short period of time. The government support programs provided the companies with additional liquidity to help them out of their predicament as well. Both internal and external factors are of significant importance in the recovery of the companies, which were summarized in the article.

Keywords: Airlines industry, COVID-19, Liquidity, Profitability, Fiscal policy

1. INTRODUCTION

In December 2019, a novel coronavirus was first reported in Wuhan, China. Subsequently, the World Health Organization declared COVID-19 a "Public Health Emergence of International Concern" [1]. On March 19, 2020, the U.S. Department of State issued a global Level 4 "do not travel" advisory in which U.S. citizens were advised to avoid international travel because of the global impact of COVID-19. In response to this pandemic without precedents and its rapid spread, restrictions were imposed on non-essential activities and business travel by the government authorities. Popular leisure destinations were temporarily closed to visitors [2]. Thus, travel demand declined rapidly in the first quarter of 2020, which resulted in a material deterioration in the operating activities of airline companies.

In order to provide other airline companies with constructive suggestions that can help them to mitigate the negative impact of COVID-19 and to recover from the recession as soon as possible, this paper [3] presents a detailed discussion and analysis of the interim financial statements of the top 3 airline companies. There are two main parts of the paper, which are the financial impacts of the COVID-19 on the companies and the measures

taken to respond to the crisis. In the first part, the changes in net income (loss), profitability, and liquidity, as well as the reasons behind the fluctuations of main financial indicators in the midst of the pandemic, were discussed in detail. The private remediation measures that companies took and the additional support the government provided to facilitate the recovery were analysed in the following part.

2. IMPACTS OF COVID-19

2.1. Impacts on Profitability

As a result of the rapid spread of COVID-19 and travel restrictions implemented by different countries, the whole economic landscape, especially travel industry has been changed and unpredictable. The trip cancellations and negative impact on flight bookings led to a significant reduction in demand for air travel [4]. Therefore, the profitability of airlines companies discussed above was affected at various levels.

In order to have a sense of the impact of COVID on the profitability of airlines industry, the interim and annual financial statements of the Top 3 airlines companies from December 31,2019 to June 31,2021 were analyzed. The net income (loss) of three companies

in each season was summarized and presented in figure 1.

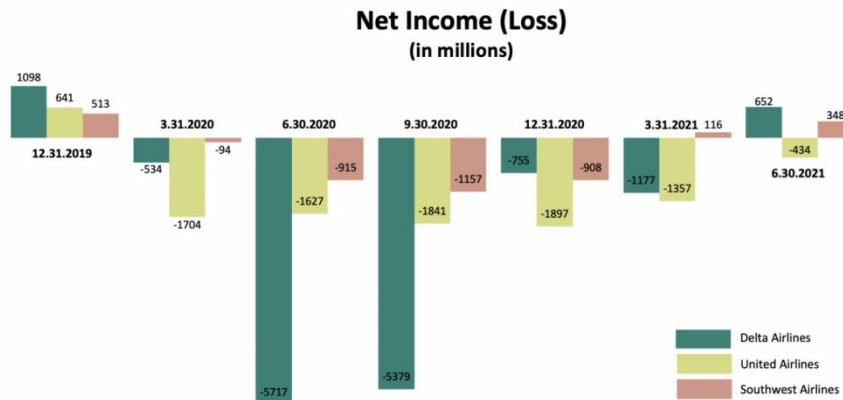


Figure 1. The Change of Net Income (Loss)

Obviously, all three companies suffered from a huge loss in the past year 2020, the United Airlines even still had a negative profit in second quarter of 2021. The Delta Airlines, which outperformed the other two companies in net income before the outbreak of COVID got through the worst loss in second and third quarters of 2020. This is mainly because at the preliminary stage of the COVID-19 outbreak, travel restrictions worked only in a modest effect without the popularization of vaccines and the deployment of public-health intervention in a large array [5]. Nonetheless, both Delta Airlines and Southwest Airlines companies had positive profit in second quarter

of 2021, which was around 60% of the net income before pandemic. It is noted that the recovery path of the financial performance of these two companies is following “U shaped” [6], which describes the path back to growth under COVID-19 as the shape of ‘V’— the shock persists, permanent loss of output was made though initial growth path is resumed.

The net profit margin of three companies was computed and the trend of change in relative value can be observed clearly in figure 2.

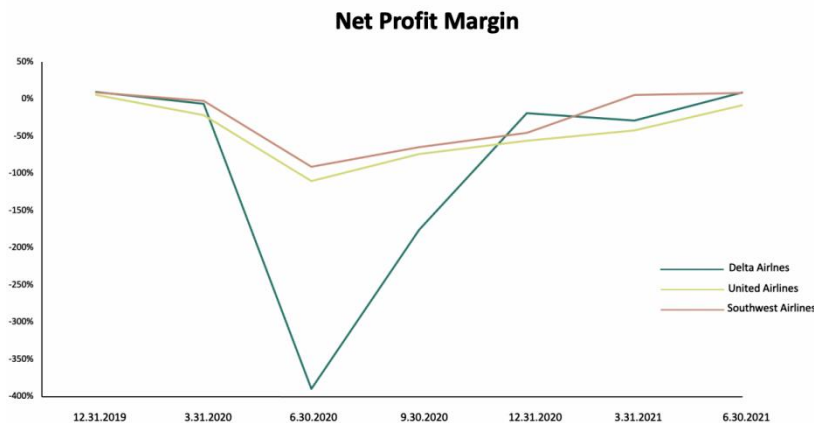


Figure 2. The Change of Net Profit Margin

Besides the tendency can be observed in the histogram chart in figure 1, the line chart in figure 2 shows that despite Delta Airlines underwent a serious loss due to COVID pandemic and had a much lower net profit margin than the other two companies in summer and fall of 2020, it recovered at a phenomenal rate and even exceeded the other two in winter of 2020. In

addition, it is notable that the Southwest Airlines, which had the highest net profit margin in the last quarter of 2019 suffered the least impact from COVID in 2020. One of the reasons that the Delta and United Airlines were affected to a more serious degree is that they have more international services than Southwest Airlines. According to revenue by geography mentioned in their

annual financial reports in 2019, revenue from Atlantic, Pacific and Latin America regions made up of at least 39% in United Airlines and 28% in Delta Airlines, which can be seen in figure 3 and 4. Thus, they experienced a more serious impact since some large markets of their business have banned foreign travellers for a limited time or indefinitely.

2019-Delta Airlines

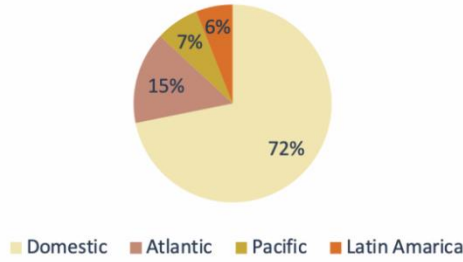


Figure 3. Revenue by geography for Delta Airlines in 2019

2019-United Airlines

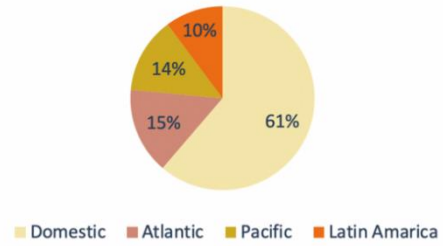


Figure 4. Revenue by geography for United Airlines in 2019

2.2. Impacts on Liquidity

Liquidity measures if a company has ability to pay off its short-term liabilities. Insufficient liquidity can adversely affect a company’s financial and business condition. The current ratio, which is the ratio of current asset to current liability, was chosen to assess the liquidity of three airlines companies under COVID pandemic situation.

Current Ratio

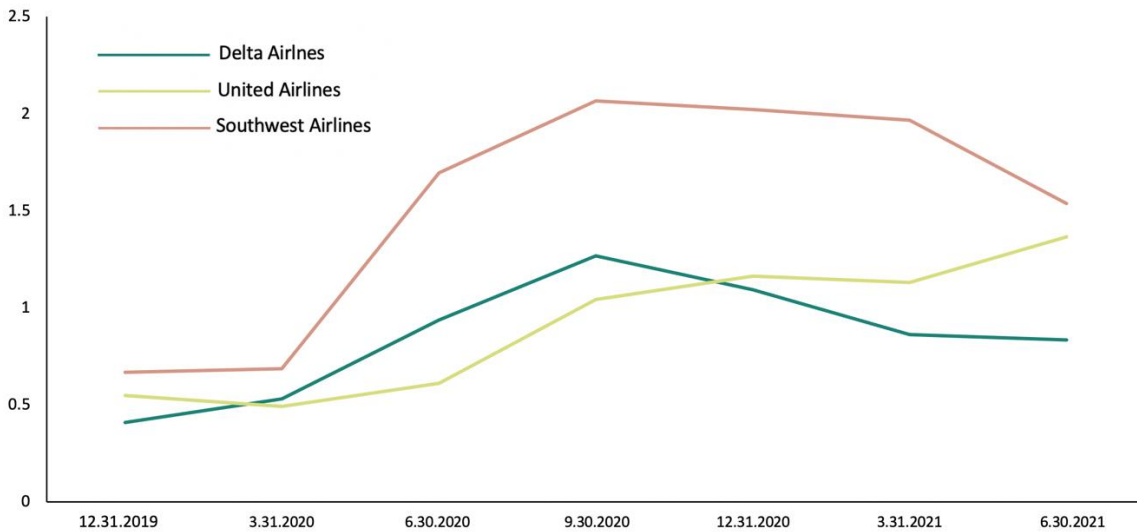


Figure 5. The Change of Current Ratio

In spite of having different capital structures and operating patterns, the current ratio of three companies kept increasing in the second and third quarter of 2020, and all of them had a higher current ratio at the middle of 2021 than current ratio at the end of 2019, which can be observed in figure 5. Moreover, Southwest Airlines always had a higher current ratio than the other two companies during the selected period.

All of three airlines companies had little variation in current liability while there was a relatively evident fluctuation in current asset in time of COVID pandemic, which can be observed in figure 6. Even though there was

no apparent change in current liabilities, there was a significant amount of existing fixed obligations, including airlines’ aircraft lease and loan financing, airport property leases, and other material cash obligations. Therefore, assuring the ability to fulfill their obligations and keeping sufficient cash and cash equivalents on hand is of great importance during this special period. As a matter of fact, the rise in cash and cash equivalents, which was the result of different actions the companies have taken to focus on their liquidity, can be account for a major change in the current asset.

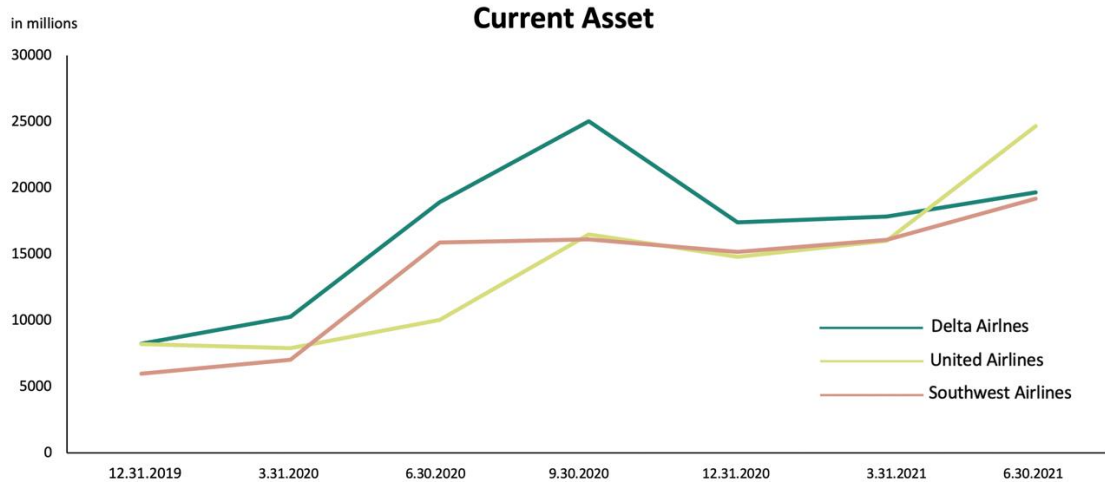


Figure 6. The change of Current Asset

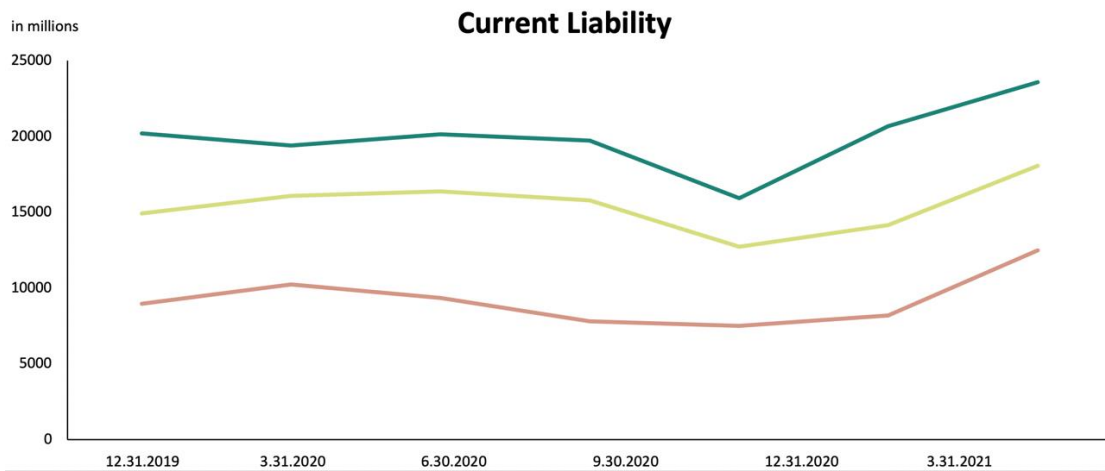


Figure 7. The change of Current Liability

3. MEASURES TAKEN AND RESPONSES TO THE CRISIS

3.1. Government Support

To facilitate the flow of credit to households and businesses, several actions were taken by the Fed which including, in March, 2020, federal funds rate was lowered by 150bp to 0-0.25bp, holdings of Treasuries and mortgage-backed securities were increased in the amount as needed, overnight and term repos were expanded, and the cost of discount window lending was lowered, etc.[7] During 2020 and 2021, three programs, which are PSP1(“Payroll Support Program 1”), PSP2, and PSP3, were created for United States of Department of the Treasury to provide assistance to passenger air carriers, cargo air carriers, aviation contractors, and national security business under the CARES Act, the Consolidated Appropriations Act, 2021, and the American Rescue Plan Act.

3.1.1. Coronavirus Aid, Relief, and Economic Security Act (PSP1)

Delta Airlines Company received a total of \$5.6 billion of support payments during 2020, which consisted of \$4.0 billion in a grant and \$1.6 billion in an unsecured 10-year low interest loan. In exchange, the Company issued warrants to the Treasury to acquire more than 6.7 million shares of Delt common stock. Besides, the CARES Act also provided for deferred payment of the employer portion of social security taxes by the end of 2020, providing the Company with approximately \$200 million of additional liquidity during 2020.

United Airlines received approximately \$5.0 billion of support payments under PSP1 during 2020, which was consisted of \$3.5 billion in a grant and \$1.5 billion in the form of a 10-year senior unsecured promissory note.

Southwest Airlines Company received a total of \$3.4 billion of relief funds under CARES Act during 2020. As consideration for this Payroll Support, the company

provided the promissory note in the aggregate amount of \$976 million and issued warrants valued at a total of \$40 million to purchase up to an aggregate of 2.7 million shares of the Company's common stock.

3.1.2. Consolidated Appropriations Act (PSP2)

Delta Airlines Company received a total of \$3.3 billion in payroll support payments under PSP2, which consisted of \$2.3 billion in a grant and \$957 million in an unsecured 10-year low interest loan and in return, the Company entered into a promissory note for the loan and issued warrants to the Treasury to acquire approximately 2.4 million shares of Delta common stock.

United Airlines Company was provided with total funding of approximately \$3.0 billion by the Treasury under PSP3, which was consisted of \$2.1 billion in a grant and \$870 million as indebtedness evidenced by a 10-year senior unsecured promissory note.

During the first six months of 2021, Southwest Airlines Company received a total of \$2.0 billion of relief funds under PSP2. During 2021, the Company provided the promissory note in the aggregate amount of \$566 million and issued warrants valued at a total of \$27 million to purchase up to an aggregate of 1.2 million shares of the Company's common stock.

3.1.3. American Rescue Plan Act (PSP3)

During the June 2021 quarter, Delta Airlines Company received a total of \$3.1 billion support payments under PSP3, which consisted of \$2.2 billion in a grant and \$891 million in an unsecured 10-year low interest loan and, in return, the Company entered into a promissory note for the loan and issued warrants to the Treasury to acquire approximately 1.9 million shares of Delta common stock.

United Airlines Company received \$2.8 billion during the second quarter of 2021, which consisted of \$2.0 billion as a direct grant and \$810 million in a 10-year senior unsecured promissory note.

Southwest Airlines Company received a total of \$1.9 billion of relief funds under PSP3, in return, the Company provided the promissory note in the aggregate amount of \$526 million and issued warrants valued at a total of \$18 million to purchase up to an aggregate of 899 thousand shares of the Company's common stock.

3.2. Private Remediation Measures

The airlines companies have taken several actions to mitigate the negative impact of COVID on their business and to strengthen their financial positions, which are discussed further below.

3.2.1. Taking Care of Customers and Employees

In the first place, in response to the government policy and requirements, they took the safety of the customers and employees as a priority. All flights implemented new cleaning and disinfecting procedures, including sanitizing most touch areas regularly such as tray tables, entertainment screens before boarding. Moreover, steps to help customers practice social distancing were taken, significant workforce social distancing and protection measures were implemented. Ultimately, significant steps have been taken to strengthen and expand its flexible ticketing policy, such as travel funds were created because of flight cancellations, period for customers to change their travel plans without charging a change fee was extended.

3.2.2. Capacity Reductions

Since the demand of the airline industry experienced a precipitous decline since the beginning of 2020, companies began to reduce their capacity to the level of maintaining the services needed to align capacity with the anticipated demand from the first quarter of 2020. For instance, Delta Airlines parked approximately 50% of their fleet temporarily as of March, 31, 2020. United Airlines has reduced its planned capacity for 2020 by about 57% compared to its 2019 capacity as well.

3.2.3. Expense Management

Cost initiatives were implemented in response to the reduction in revenue. Despite there was decline in oil prices due to the reduction of demand for oil [8], the fixed obligations that were supposed to fulfill in short-term such as the employee payments, lease payments, and cost of maintenance for aircraft put huge pressure on companies. In the face of these challenges, voluntarily unpaid leaves of some period, salary reductions, early retirement and voluntary separation programs were offered to certain employees correspondingly. Besides, non-essential maintenance projects were determined to be delayed and all other discretionary spending was eliminated. For instance, Southwest Airlines used a single aircraft type, which led to simplified scheduling, maintenance, flight operations, safety management, and training activities.

3.2.4. Cash Flow and Liquidity

In order to assure the ability to pay off short-term liabilities, airlines companies took a number of actions to increase liquidity. Except receiving cash flow from government support program, they financed through other ways like drawing cash from previously undrawn revolving credit facilities, extending the maturity of borrowings, entering loans, issuing senior secured notes as well as postponing share repurchases and dividends

and other actions to raise cash proceeds. For instance, United Airlines raised approximately \$2.0 billion in cash proceeds from the issuance and sale of UAL common stock in 2020.

On the other hand, companies also took a few measures so as to keep compiling with covenants in debt agreements and to meet the requirements of credit facilities as they have fixed obligations to fulfill. Taking Delta Airlines as an example, fixed charge coverage ratio covenants were replaced with liquidity-based covenants by amending their credit facilities.

4. CONCLUSION

The COVID-19 pandemic, together with the measures implemented by government authorities and private organizations have had an adverse impact that has been material to the airline industry. With the unexpected and severe decrease in demand for passengers caused by COVID-19 concerns beginning in the first quarter of 2020, the airlines companies experienced a precipitous loss in whole fiscal year 2020. Companies with more international services such as Delta Airlines Company under stronger pressure than other companies especially in the first and second quarters of 2020. The net profit margin dropped to the lowest point in June, 2020 for all three companies, which can be confirmed by the analysis of interim financial statements of them. Nevertheless, the current ratio of three companies started to rise since the beginning of the 2020, which means that they had taken effective actions to alleviate this negative impact and to meet their liquidity needs.

Although high uncertainty remained due to the introduction and spread of new variants of the virus, measures that the companies implemented to comply with government requirements, manage expense, increase cash and cash equivalent holdings, and enhance their financial positions were proved instrumental because the net income started to increase after first two quarters in 2020. Besides apart from active and effective actions the companies have taken, the participation of the government also played a vital role in the recovery of the airlines industry. Three payroll support programs created by the Treasury provided the companies with timely help and additional liquidity, which promoted the recovery of the airlines industry effectively.

In summary, both private remediations measure companies had taken and government support provided by the Fed helped the companies made through the emergency and recovered from negative impact of COVID in a short time. Therefore, some constructive suggestions and guidance can be found from the examples of the companies discussed in this paper, which can be applied to companies that are facing similar predicaments. Loosen fiscal policies that the government

has implemented are also can be used as a reference for future emergence.

ACKNOWLEDGMENT

The author would like to express appreciation to family and friends who provided support and care during this hard time.

REFERENCES

- [1] Sohrabi C, Alsafi Z, O'Neill N, et al. World Health Organization declares global emergency: a review of the 2019 novel coronavirus (COVID-19). *Int J Surg.* 2020; 76: 71- 76.
- [2] Chinazzi M, Davis JT, Ajelli M, et al. The effect of travel restrictions on the spread of the 2019 novel coronavirus (COVID-19) outbreak. *Science.* 2020; 368(6489): 395- 400.
- [3] Bloom, Laura Begley. "Ranked: The Best and Worst Airlines in America in 2021." *Forbes*, Forbes Magazine, 28 July 2021, www.forbes.com/sites/laurabegleybloom/2021/07/19/ranked-the-best-and-worst-airlines-in-america-in-2021-according-to-new-report/?sh=355d002672c3.
- [4] Danny Haydon, Neeraj Kumar. "Industries Most and Least Impacted by covid19 from a Probability of Default Perspective." *Accelerating Progress*, 22 Mar. 2021, <https://www.spglobal.com/marketintelligence/en/news-insights/blog/industries-most-and-least-impacted-by-covid19-from-a-probability-of-default-perspective>
- [5] Gostin LO, Wiley LF. Governmental public health powers during the COVID-19 pandemic: stay-at-home orders, business closures, and travel restrictions. *JAMA.* 2020; 323(21): 2137.
- [6] Carlsson-Szlezak P, Reeves M, Swartz P. What coronavirus could mean for the global economy. *Harv Bus Rev.*
- [7] Buckley, Patricia. 2020. U.S. Policy Response to COVID-19 Aims to Set the Stage for Recovery. *Deloitte Insights*, April 8.
- [8] Iyke, B. N. 2020b. COVID-19: The reaction of US oil and gas producers to the pandemic. *Working Paper.*