# Portfolio Project Final: Stock Analysis and Recommendation Project

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# Company Overview

United Airlines is considered the major U.S based airline. It was founded in 1926 and is headquartered in Chicago (United Airlines Ltd, 2022). The company operates at regional and international levels and is considered one of the major airlines in the U.S. The market share of United Airlines is as per below:

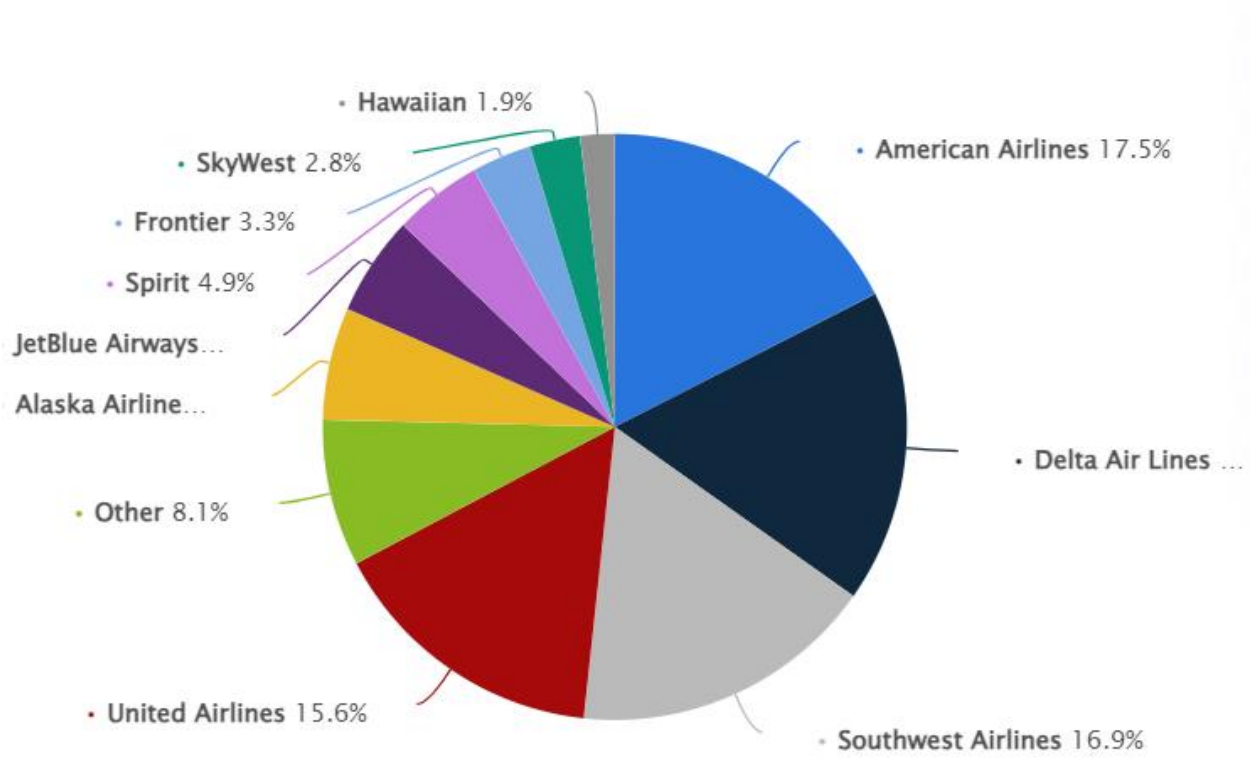


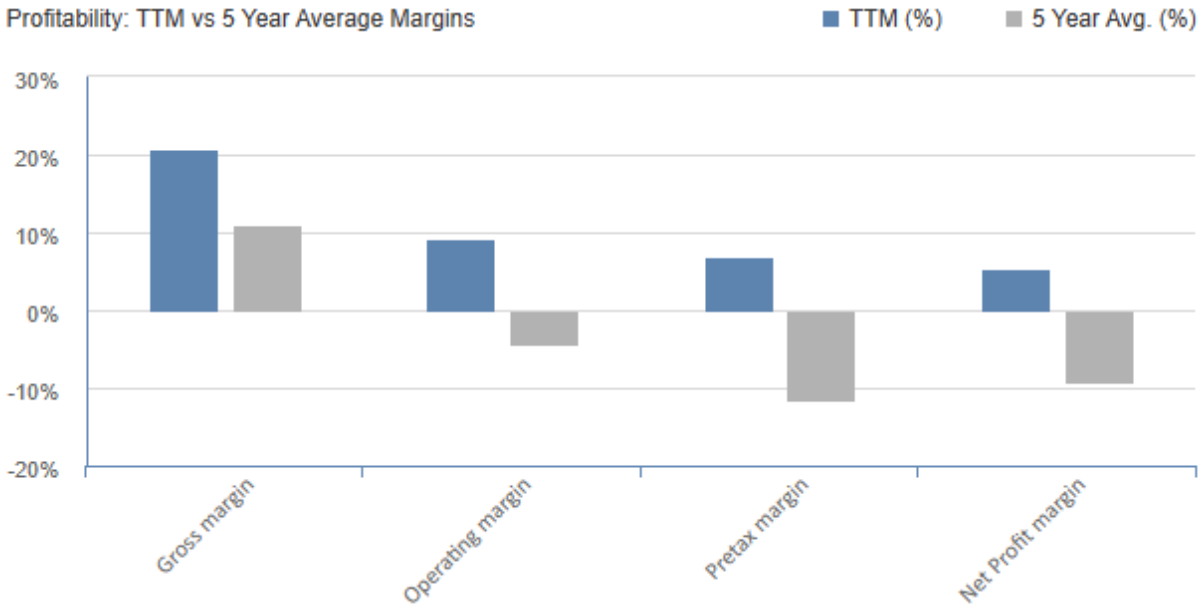

Figure 01 Market Share of Major U.S Airlines

Source (Statista , 2023)

Delta Airlines is listed in NASDAQ with ticker DAL and has a market cap of $ 26.83 billion and outstanding shares of 439,042,091 (Investing.com, 2023).

## Financial Performance:

Delta Airlines has recovered from the Covid-19 setback and has shown growth in revenue and profits.




Source (Investing.com, 2023)

Although the company has not reached its pre-Covid profit and revenue margins, it has recovered from the losses during 2020 and 2021 and has shown positive financial figures by the end of 2022 (Delta Airlines Ltd, 2022).

| Period Ending: | Jun 30, 2023 | Mar 31, 2023 | Dec 31, 2022 | Sep 30, 2022 |
|---|---|---|---|---|
| **Total Revenue** | 15578 | 12759 | 13435 | 13975 |
| **Gross Profit** | 4186 | 2112 | 3048 | 3135 |
| **Operating Income** | 2433 | 485 | 1490 | 1565 |
| **Net Income** | 1827 | -363 | 829 | 695 |

Source (Investing.com, 2023)

The company is also slightly underperforming in comparison with the industry, as shown in below mentioned figures based on the last twelve months' performance:

| Name | Company | Industry |
|---|---|---|
| P/E Ratio TTM | 9.19 | 20.98 |
| Price to Sales TTM | 0.49 | 1 |
| Price to Cash Flow MRQ | 3.67 | 4.73 |
| Price to Free Cash Flow TTM | 34.05 | -2.02 |
| Price to Book MRQ | 3.39 | 1.31 |
| Price to Tangible Book MRQ | -3.59 | -2.15 |

Source (Investing.com, 2023)

The low price-to-earnings ratios indicate little difference between the company's market value and its actual financial earrings. This ratio, however, is far below the industry's, which shows that stock is not much valued by investors based on its current performance. The price-to-book ratio is also meager, which indicates the market value compared to the company's net assets. On the other hand, the price-to-intangible book ratio is significantly higher than the industry, indicating that the company has a lower number of tangible assets and a higher value for intangible assets. The price to free cash flows is also higher than the industry average, indicating a higher market price in comparison with the cash flows.

## External Analysis:

The airline industry in the U.S. is vast and consists of several sub-sectors. The major categories include international, national, and regional airlines. The market has local and international players, and the industry caters to up to 1 billion passengers per year (Revfine , 2023).

The major U.S based airlines include American, Delta, Southwest, and United Airlines, which comprise most of the market share and are active in national and international markets (Revfine , 2023). China Southern Airline, Emirates, Ryan Air, and KLM are prominent international players with major fleets and international presence (Revfine , 2023).

The U.S. airline industry is vast and highly competitive. The industry is considered capital-intensive due to considerable investments in the initial years of establishment. Moreover, the operational activities also required the companies to maintain steady cash flows. Most companies are also highly leveraged and rely on external capital for smooth operations (Revfine , 2023). The competition is mainly on service quality and pricing. Few players, such as Ryan Air, have positioned their brands on pricing, while others, such as Emirates, market their brands on high service quality. Airlines usually follow any of the four business modes, including running full-service airlines, low-cost carriers, charter airlines, or cargo airlines (Revfine , 2023). In most cases, the business model integrates a mix of these four business models for generating multiple revenue streams. The companies are under pressure to maintain high service quality without compromising their financial performance as most airlines are publicly listed, and one negative news can significantly impact their market position.

## Top-down Analysis:

The revenue of the airline industry in U.S. is expected to grow with a Compounded Annual Growth Rate (CAGR) of 3.03% from 2023-2027 (Statista, 2023).

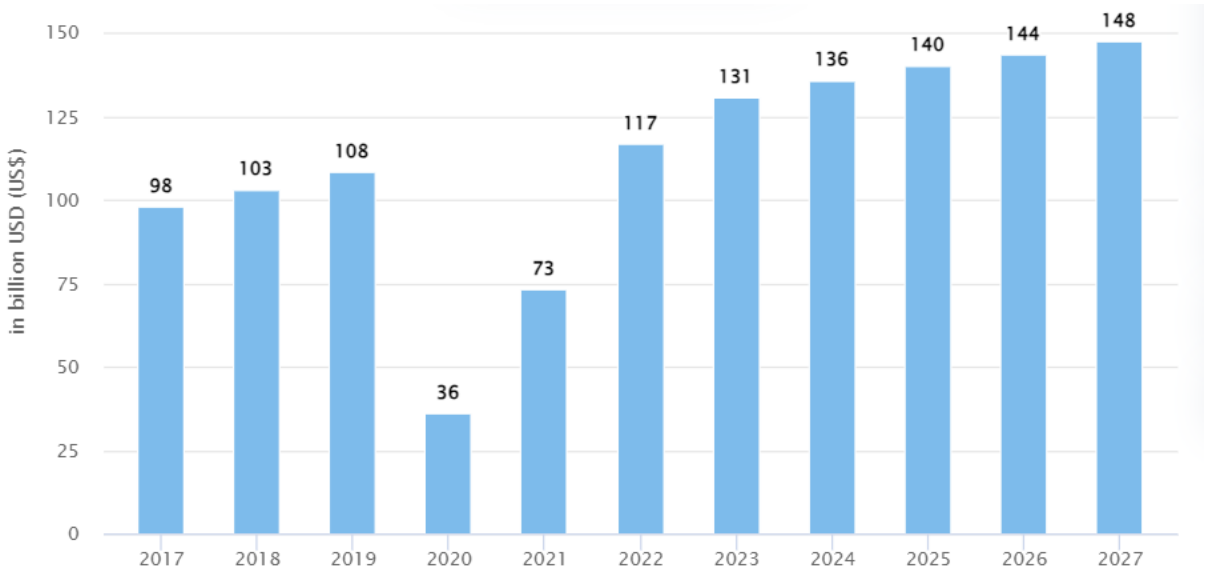



Figure 01 U.S Airline Industry Revenue Projection

Source (Statista, 2023)

There are several social, economic, and technological trends that are shaping industry. The airline industry specifically in U.S is in phase of post pandemic recovery. Among the top defining trends in the industry are increasing automation and digitalization both in airline and airport operations. Airports are rapidly embracing digital ID systems for more safety and efficiency (Egencia, 2022). Use of block chains is also increasing for securing confidential data that is more protected with end-to-end encryption.

The global supply chain operations of airline industry were severely affected by the pandemic (Belhadi, et al., 2020). However, the passenger airlines are witnessing more growth due to the increasing number of personal and business travel. This market segment is bouncing back to pre-pandemic levels. Another increasing trend is the focus on sustainability where airlines are reducing their carbon emissions for attracting more customers (Egencia, 2022). The

major challenge with industry is the rising fuel prices which are increasing the cost of doing business. It has been found that jet fuel prices were an all-time high in 2022 (Impact , 2023).

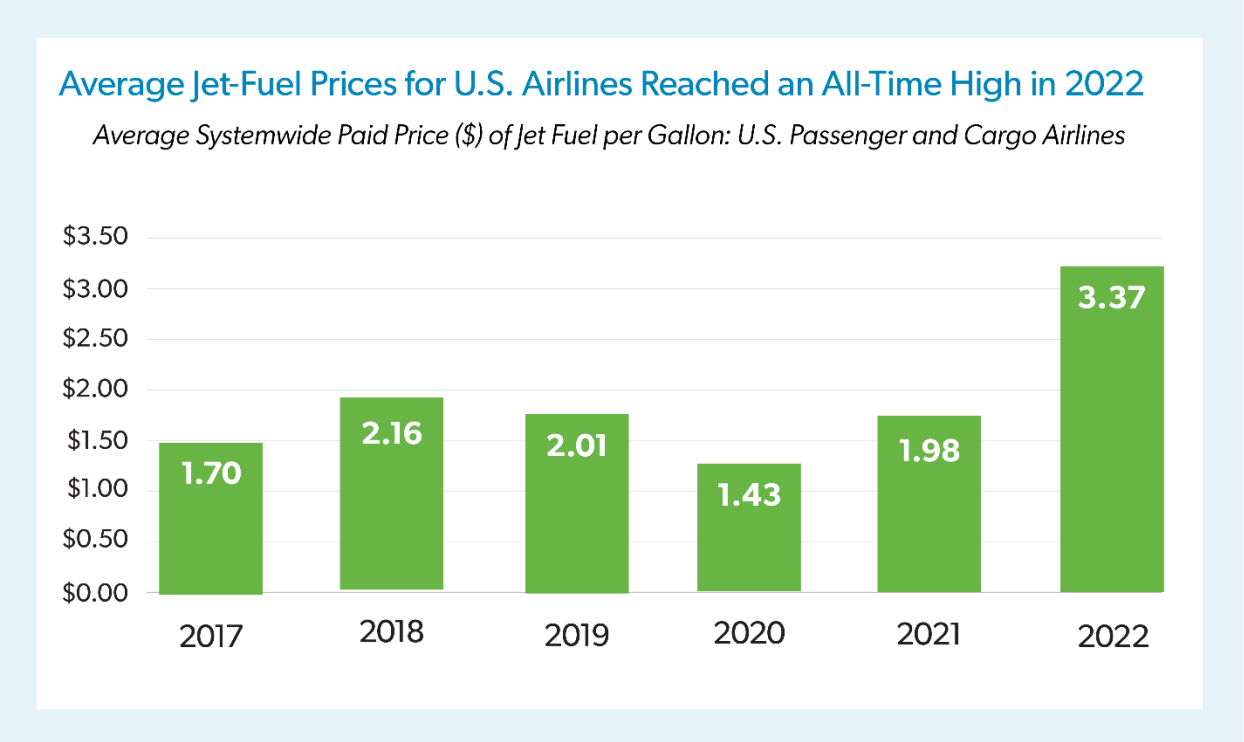



Figure 02 Jet Fuel per Gallon Prices

Source (Impact , 2023)

Airlines are struggling to maintain competitive pricing due to high cost of fuel (Siallagan & Prijadi, 2019). Moreover, there is an increase in competition in the airline industry which further puts more pressure on pricing and service quality of the airlines. Consumer brand perception and experience is highly shaped by service quality (Prentice, Wang, & Loureiro, 2019).Passengers are looking for more convenience, they want more travel friendly options, and they also don't compromise on the pricing factor. Cost is considered as the most important factor in consumer decision making in the airline industry (Korfiatis, Stamolampros, Kourouthanassis, & Sagiadinos, 2019).Leisure travelling is increasing and it is the most growing and lucrative market segment or the business (Impact , 2023).

Company's Outlook:

Delta Airlines has a wide network and huge number of alliances with its partners. This airline currently serves 130 countries and 800 destinations along with its partners (Delta Airlines , 2022). The company has resumed its operations to almost pre pandemic level with 4,000 daily flights to 275 destinations to six continents (Delta Airlines , 2022). The outlook based on these facts is positive as the airline is performing optimally in its daily operations.

## Stock Performance:

The stock performance of the company is affected by the industry's outlook. Traders especially in Western countries are more responsive towards market news and outlook ( Maneenop & Kotcharin, 2020). As per the efficient market hypothesis the stock prices at any given point would reflect all the available information related to company and industry ( Vasileiou, 2022). However, in practice this phenomenon is not always reflected through stock performances.

The stock performance of the company in last twelve months is as per follows:

| Date | Price | Open | High | Low | Vol. | Change % | Earnings | P/E |
|---|---|---|---|---|---|---|---|---|
| **1-Jul-22** | 31.8 | 29.23 | 33.08 | 28.14 | 283.77 M | 9.77% | 2.07 | 15.3623 |
| **1-Aug-22** | 31.07 | 31.78 | 35.79 | 31.06 | 191.49 M | -2.30% | 2.07 | 15.0097 |
| **1-Sep-22** | 28.06 | 30.65 | 33.74 | 27.8 | 220.70 M | -9.69% | 2.07 | 13.5556 |
| **1-Oct-22** | 33.93 | 27.98 | 35.08 | 27.2 | 269.24 M | 20.92% | 2.07 | 16.3913 |
| **1-Nov-22** | 35.37 | 34.33 | 36 | 30.98 | 162.84 M | 4.24% | 2.07 | 17.0870 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **1-Dec-22** | 32.86 | 35.45 | 36.88 | 31.82 | 195.06 M | -7.10% | 2.07 | 15.8744 |
| **1-Jan-23** | 39.1 | 33.25 | 39.62 | 32.33 | 255.06 M | 18.99% | 2.2 | 17.7727 |
| **1-Feb-23** | 38.34 | 38.84 | 40.34 | 36.66 | 141.08 M | -1.94% | 2.2 | 17.4273 |
| **1-Mar-23** | 34.92 | 38.34 | 40.3 | 31.04 | 235.32 M | -8.92% | 2.2 | 15.8727 |
| **1-Apr-23** | 34.31 | 34.48 | 36.19 | 32.44 | 230.95 M | -1.75% | 2.2 | 15.5955 |
| **1-May-23** | 36.33 | 34.43 | 36.93 | 32.68 | 204.24 M | 5.89% | 2.2 | 16.5136 |
| **1-Jun-23** | 47.54 | 36.42 | 47.73 | 36 | 267.18 M | 30.86% | 2.2 | 21.6091 |
| **1-Jul-23** | 46.26 | 47.44 | 49.81 | 45.39 | 238.16 M | -2.69% | 2.2 | 21.0273 |

The company's lowest stock price was in September 2022, while the highest was in July 2023. The fluctuations between the higher and lower prices are quite significant, showing the impact of news and market conditions on the stock performance. This is also visible through the company's high beta which shows more stock volatility than the market. It has been found that the overall riskiness and volatility of airline stocks have increased because of the pandemic (Benourrad & Hyunjoon, 2021). The trading volume, however, is similar and has not shown many fluctuations. However, it has been found that stock trading volumes are affected by both fake and legitimate news (Clarke, Chen , Du, & Hu, 2020). In other words, it can be inferred that no significant news impacted the stock trading volume during the observed period.

Other market-based information on the stock is as follows:

| | |
|---|---|
| **Previous Close** | **44.23** |
| **Open** | **43.88** |
| **Bid** | **43.02 x 1400** |
| **Ask** | **0.00 x 1000** |
| **Day's Range** | **42.96 - 44.06** |
| **52 Week Range** | **27.20 - 49.81** |
| **Volume** | **6,999,575** |
| **Avg. Volume** | **10,896,854** |
| **Market Cap** | **27.68B** |
| **Beta (5Y Monthly)** | **1.30** |
| **PE Ratio (TTM)** | **9.23** |
| **EPS (TTM)** | **4.66** |
| **Earnings Date** | **Oct 11, 2023 - Oct 16, 2023** |
| **Forward Dividend & Yield** | **0.40 (0.91%)** |
| **Ex-Dividend Date** | **Jul 14, 2023** |
| **1y Target Est** | **61.06** |

Source (Yahoo Finance, 2023)

The company has a high market cap of $27.6 billion. The beta is 1.30, indicating that the stock is more volatile than the market. This can be due to the nature of the airline industry which has some inherent risks; therefore, the stock is riskier than the other industries. The high trading volume also shows investor's confidence. The stock has a high Price-to-earnings ratio, which shows that it is overvalued and is high investor confidence in the company.

Given the risk-free rate for U.S treasury bonds (10 years) and the average returns on NASDAQ for the market risk premium, the cost of equity is calculated as follows:

| Cost of Equity | | |
|---|---|---|
| | | |
| **Risk-free rate** | 4.21% | US 10-year treasury rate |
| **Beta** | 1.3 | |
| **Market risk premium** | 8% | |
| | | |
| **Equity cost** | 9.14% | |
| | | |
| **Stock Valuation** | | |
| **Dividend Growth rate** | 5% | |
| | | |
| **Dividend value** | 50 | cents |
| **Projected dividend** | 52.5 | cents |
| | | |
| **Stock value cents** | 1269.0 | |
| **Stock value USD** | 12.6904 | |

The stock valuation in the above model assumes a 5% growth rate. The valuation shows that the stock is overvalued, as shown through the high P/ E ratio. The current market price of the stock is far higher than the intrinsic value of the stock.

## Income Statement Analysis:

The vertical analysis of the Income statement shows that the company has recovered from its losses and is showing growth. The revenue growth is quite visible in the year-on-year analysis. The company has also been able to report gross profits and has improved its overall margins.

| Income Statement | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| ***Period Ending:*** | **2022** | **2021** | **2020** | **2019** | **2022** | **2021** | **2020** |
| | 31/12 | 31/12 | 31/12 | 31/12 | | | |
| **Total Revenue** | 50,582.00 | 29,899.00 | 17,095.00 | 47,007.00 | 69.18% | 74.90% | 63.63% |
| **Revenue** | 41,268.00 | 23,551.00 | 13,491.00 | 47,007.00 | 75.23% | 74.57% | 71.30% |
| **Other Revenue, Total** | 9,314.00 | 6,348.00 | 3,604.00 | - | 46.72% | 76.14% | |
| **Cost of Revenue, Total** | 40,902.00 | 27,728.00 | 20,871.00 | 33,821.00 | 47.51% | 32.85% | 38.29% |
| **Gross Profit** | 9,680.00 | 2,171.00 | (3,776.00) | 13,186.00 | 345.88% | -157.49% | 128.64% |
| **Total Operating Expenses** | 46,724.00 | 32,084.00 | 25,058.00 | 40,440.00 | 45.63% | 28.04% | 38.04% |
| **Selling/General/Admin. Expenses, Total** | 1,891.00 | 953.00 | 643.00 | 2,211.00 | 98.43% | 48.21% | 70.92% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Research & Development** | 307.00 | 301.00 | 304.00 | 239.00 | 1.99% | -0.99% | -27.20% |
| **Depreciation / Amortization** | 7.00 | (2.00) | 12.00 | (19.00) | -450.00% | -116.67% | 163.16% |
| **Interest Expense (Income) - Net Operating** | (1,029.00) | (1,279.00) | (929.00) | (301.00) | -19.55% | 37.67% | -208.64% |
| **Unusual Expense (Income)** | - | (4,212.00) | 4,273.00 | - | | -198.57% | |
| **Other Operating Expenses, Total** | 4,646.00 | 4,383.00 | 4,157.00 | 4,489.00 | 6.00% | 5.44% | 7.40% |
| **Operating Income** | 3,858.00 | (2,185.00) | (7,963.00) | 6,567.00 | -276.57% | -72.56% | 221.26% |
| **Interest Income (Expense), Net Non-Operating** | - | (1,560.00) | (3,466.00) | (182.00) | | -54.99% | -1804.40% |
| **Gain (Loss) on Sale of Assets** | (783.00) | 56.00 | (105.00) | 119.00 | -1498.21% | -153.33% | 188.24% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Other, Net** | 2,727.00 | (2,639.00) | 7,729.00 | 250.00 | -203.33% | -134.14% | -2991.60% |
| **Net Income Before Taxes** | 1,914.00 | 398.00 | (15,587.00) | 6,198.00 | 380.90% | -102.55% | 351.48% |
| **Provision for Income Taxes** | 596.00 | 118.00 | (3,202.00) | 1,431.00 | 405.08% | -103.69% | 323.76% |
| **Net Income After Taxes** | 1,318.00 | 280.00 | (12,385.00) | 4,767.00 | 370.71% | -102.26% | 359.81% |
| **Minority Interest** | - | - | - | - | | | |
| **Equity In Affiliates** | - | - | - | - | | | |
| **U.S GAAP Adjustment** | - | - | - | - | | | |
| **Net Income Before Extraordinary Items** | 1,318.00 | 280.00 | (12,385.00) | 4,767.00 | 370.71% | -102.26% | 359.81% |
| **Total Extraordinary Items** | - | - | - | - | | | |
| **Net Income** | 1,318.00 | 280.00 | (12,385.00) | 4,767.00 | 370.71% | -102.26% | 359.81% |
| **Total Adjustments to Net Income** | - | - | - | - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Income Available to Common Excluding Extraordinary Items** | 1,318.00 | 280.00 | (12,385.00) | 4,767.00 | 370.71% | -102.26% | 359.81% |
| **Dilution Adjustment** | (2.46) | (2.04) | 10.64 | - | 20.59% | -119.17% | |
| **Diluted Net Income** | 1,320.46 | 282.04 | (12,395.64) | 4,767.00 | 368.18% | -102.28% | 360.03% |
| **Diluted Weighted Average Shares** | 641.00 | 641.00 | 636.00 | 653.00 | 0.00% | 0.79% | 2.60% |
| **Diluted EPS Excluding Extraordinary Items** | 2.06 | 0.44 | (19.49) | 7.30 | 368.18% | -102.26% | 366.99% |
| **DPS - Common Stock Primary Issue** | - | - | 0.40 | 1.50 | | | 73.33% |
| **Diluted Normalized EPS** | 2.65 | (3.44) | (8.60) | 7.30 | -177.03% | -60.00% | 217.81% |

The company's net income has recovered from losses and improved its Earnings per share.

## Balance Sheet Analysis:

The balance sheet analysis of the company has shown a decline in current assets, particularly in cash and equivalents. The total assets, however, have grown mainly because of the Property, plant, and Equipment section.

| Balance Sheet | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| **Period Ending:** | **2022** | **2021** | **2020** | **2019** | **2022** | **2021** | **2020** |
| | 31/12 | 31/12 | 31/12 | 31/12 | | | |
| **Total Current Assets** | 13011 | 15940 | 17404 | 8249 | -18.38% | -8.41% | 110.98% |
| **Cash and Short-Term Investments** | 6534 | 11319 | 14096 | 2882 | -42.27% | -19.70% | 389.10% |
| **Cash** | - | - | - | - | | | |
| **Cash & Equivalents** | 3266 | 7933 | 8307 | 2882 | -58.83% | -4.50% | 188.24% |
| **Short Term Investments** | 3268 | 3386 | 5789 | - | -3.48% | -41.51% | #VALUE! |
| **Total Receivables, Net** | 3176 | 2404 | 1396 | 2854 | 32.11% | 72.21% | -51.09% |
| **Accounts Receivables - Trade, Net** | 3176 | 2404 | 1396 | 2854 | 32.11% | 72.21% | -51.09% |
| **Total Inventory** | 1424 | 1098 | 732 | 1251 | 29.69% | 50.00% | -41.49% |
| **Prepaid Expenses** | 1739 | 956 | 988 | 1012 | 81.90% | -3.24% | -2.37% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Other Current Assets, Total** | 138 | 163 | 192 | 250 | -15.34% | -15.10% | -23.20% |
| **Total Assets** | 72288 | 72459 | 71996 | 64532 | -0.24% | 0.64% | 11.57% |
| **Property/Plant/Equipment, Total - Net** | 39078 | 35133 | 32262 | 36937 | 11.23% | 8.90% | -12.66% |
| **Property/Plant/Equipment, Total - Gross** | 59448 | 53804 | 49773 | 53964 | 10.49% | 8.10% | -7.77% |
| **Accumulated Depreciation, Total** | -20370 | -18671 | -17511 | -17027 | 9.10% | 6.62% | 2.84% |
| **Goodwill, Net** | 9753 | 9753 | 9753 | 9781 | 0.00% | 0.00% | -0.29% |
| **Intangibles, Net** | 5992 | 6001 | 6011 | 5163 | -0.15% | -0.17% | 16.42% |
| **Long Term Investments** | 2128 | 1712 | 1665 | - | 24.30% | 2.82% | |
| **Note Receivable - Long Term** | - | - | - | - | | | |
| **Other Long-Term Assets, Total** | 2001 | 2626 | 4901 | 4402 | -23.80% | -46.42% | 11.34% |
| **Other Assets, Total** | 1979 | 3537 | - | - | -44.05% | | |
| **Total Current Liabilities** | 25940 | 20966 | 15927 | 20204 | 23.72% | 31.64% | -21.17% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Accounts Payable** | 5106 | 4240 | 2840 | 3266 | 20.42% | 49.30 % | -13.04 % |
| **Payable/Accrued** | - | - | - | - | | | |
| **Accrued Expenses** | 5020 | 4185 | 4434 | 5561 | 19.95% | -5.62 % | -20.27 % |
| **Notes Payable/Short-Term Debt** | 1100 | 1100 | - | - | | | |
| **Current Port. of LT Debt/Capital Leases** | 3073 | 2485 | 1732 | 2287 | 23.66% | 43.48 % | -24.27 % |
| **Other Current Liabilities, Total** | 11641 | 8956 | 6921 | 9090 | 29.98% | 29.40 % | -23.86 % |
| **Total Liabilities** | 65706 | 68572 | 70462 | 49174 | -4.18% | -2.68 % | 43.29 % |
| **Total Long-Term Debt** | 20671 | 25138 | 27425 | 8873 | -17.77% | -8.34 % | 209.08 % |
| **Long Term Debt** | 19326 | 23582 | 26531 | 8052 | -18.05% | -11.12 % | 229.50 % |
| **Capital Lease Obligations** | 1345 | 1556 | 894 | 821 | -13.56% | 74.05 % | 8.89% |
| **Deferred Income Tax** | 24 | - | - | 1456 | | | |
| **Minority Interest** | - | - | - | - | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Other Liabilities, Total** | 11655 | 15052 | 27110 | 18641 | -22.57% | -44.48% | 45.43% |
| **Total Equity** | 6582 | 3887 | 1534 | 15358 | 69.33% | 153.39% | -90.01% |
| **Redeemable Preferred Stock, Total** | - | - | - | - | | | |
| **Preferred Stock - Non-Redeemable, Net** | - | - | - | - | | | |
| **Common Stock, Total** | 6456 | 0.65 | 0.06 | 0.07 | 993130.77% | 983.33% | -14.29% |
| **Additional Paid-In Capital** | 11526 | 11447 | 11259 | 11129 | 0.69% | 1.67% | 1.17% |
| **Retained Earnings (Accumulated Deficit)** | 1170 | -148 | -428 | 12454 | -890.54% | -65.42% | -103.44% |
| **Treasury Stock - Common** | -313 | -282 | -259 | -236 | 10.99% | 8.88% | 9.75% |
| **ESOP Debt Guarantee** | - | - | - | - | | | |
| **Unrealized Gain (Loss)** | - | - | - | - | | | |
| **Other Equity, Total** | -5801 | -7130 | -9038.06 | -7989.07 | -18.64% | -21.11% | 13.13% |
| **Total Liabilities & Shareholders' Equity** | 72288 | 72459 | 71996 | 64532 | -0.24% | 0.64% | 11.57% |
| **Total Common Shares Outstanding** | 638.16 | 639.97 | 638.18 | 642.77 | -0.28% | 0.28% | -0.71% |

The company's equity has been reduced, perhaps due to the accumulation of losses and adjustments. The total outstanding shares have also slightly decreased, possibly due to the share buyback programs or consolidation.

### Duo Pont Analysis:

This analysis assesses the company's fundamental performance against a given benchmark. The return on equity is calculated through different drivers of equity, which are broken down into its fundamental components. The Duo Pont analysis of Delta Airlines shows that the ROE of the company is 20%, as identified by the sales and assets turnover. The ROE of 20% is relatively high, given the capital-intensive nature of the airline industry. Some inherent capital investments in the industry make the returns and gains difficult. The cost of daily operations is also high, which further decreases the returns. However, the airline is showing a high 20% return on equity. It can also be because of the high-leverage position of the company. Compared with the equity debt, the debt, especially the long-term debt of the company, is relatively high, which decreases the cost of acquiring capital and increases the returns on equity for the company. The assets to shareholder equity component is notably higher as most of the assets would have been financed through long-term loans.

| **ROE** | **Net Income / Sales** | *** Sales/Assets** | ***Assets/** shareholders' **equity** |
|---|---|---|---|
| | | | |
| | 0.032 | 0.571 | 10.983 |
| | | | |
| **ROE** | 20.02% | | |

## Recommendation & Conclusion:

The airline industry has returned from the pandemic, and the outlook seems positive. Moreover, the performance of Delta Airlines is satisfactory regarding stock prices and returns. It can be said that the industry and the company outlook are optimistic, which is a good indicator from the investor's perspective. It has been found that market risks, including climate risk, are essential factors that affect stock returns (Venturin, 2022). These market risk factors are comparatively lower in a post-pandemic environment. Furthermore, ROE is considered an essential tool for company performance measurement (Indraswono, 2021). The ROE of Delta Airlines is high, which an essential factor of consideration for investors is. High ROE for the company could translate into capital gains and a strong dividend yield for the stock investors. Despite the high beta of the company, its performance is satisfactory, and the stock has the potential to offer good returns. The stock's current market value has been high in the last twelve months, so it has already provided capital gains for those who have invested in it in the last twelve months.

It can be inferred from the above discussion that stock performance is affected by both macro and micro factors. The airline industry was affected by the pandemic and high fuel costs. However, the industry has bounced back from the pandemic. Given the stock performance of Delta Airlines in the last twelve months, a significant improvement can be observed. The company's returns on equity are also high, indicating that it is successfully maximizing the gains on its investments. The Delta airline stock seems like a good investment option for investors with promising future growth potential. It is recommended as a buy option.

## Annotated Bibliography

Maneenop, S., & Kotcharin, S. (2020). The impacts of COVID-19 on the global airline industry: An event study approach. *Journal of Air Transport Management, p. 89*, 101920 doi: https://eds-s-ebscohost-com.csuglobal.idm.oclc.org/

This research investigates the impact of the coronavirus pandemic as a global risk that caused a disturbance in business operations as one of the first industries is airline. The study highlights the evidence regarding including government management worldwide formally forbidding cross-country transportation by law, rule, or other authority. Thus, the airline market value has been smaller amount since then. This study contributes to the methodology for releases on airline stock returns.

Clarke, J., Chen, H., Du, D., & Hu, Y. (2020). Fake News, Investor Attention, and Market Reaction. Information Systems Research, 32(01), 35–52.

This research paper examines the role of fake news articles in the strategy well-understood process of the stock market reaction. They studied the actual occurrence collision of fake news articles about investor attention and stock market reaction. Using a research model and data from Alpha with machine learning algorithms that can recognize fake news. Thus, the stock market can identify unusual trading volume and find price fake news.

Indraswono, C. (2021). Traditional and Modern Analysis Performance Indicators: Evidence from New York Stock Exchange. KINERJA, 25(01), 64-78.

This study proposes a comprehensive framework that explains the company's performance was measured on the New York Stock Exchange using traditional performance measure returns such as Return on Assets (ROA), Return on Equity (ROE), and modern techniques measured in Economic Value Added (EVA) so every test contains different information. It highlights data analysis techniques and their impact on operational and financial performance, like descriptive statistics, classical assumption tests, and multiple regression analysis.

Korfiatis, N., Stamolampros, P., Kourouthanassis, P., & Sagiadinos, V. (2019). Measuring service quality from unstructured data: A topic modeling application on airline passengers' online reviews. Expert Systems with Applications, 116, 472-486. doi: https://eds-p-ebscohost-com.csuglobal.idm.oclc.org/

This research paper aims to understand product and service quality and then recognize from the modeling to produce numerical scores to compare customer satisfaction and service quality. They created a framework incorporating a critical system that acts as an implementation to execute market analysis and asses the companies' performance through a search in multidisciplinary databases and analysis of case studies in the airline passengers' online review with STM. As a result, the low-cost characteristic of airline contention as another service quality proportion is considered.

Prijadi, R. (2020). The Impact of Operational and Financial Hedging on the Airline Operating Performance.
https://www.researchgate.net/publication/340125165_The_Impact_of_Operational_and_Financial_Hedging_to_the_Airline_Operating_Performance

This research paper examines the role of the airline industry, which has a low profit margin with a high activity or condition of the operational and financial confine to airline operating production—using airline data from 2013 to 2017 to test the collision of enclosed airline operation performance. They applied operation cost to revenue ratio, and operation and finance confined with other effect variables. Thus, financial imitative surround might reduce the dollars needed for the airline revenue and increase operational needs.

Felix, S. B., Tuyon, J., Matahir, H., & Ghazali, M. F. (2023). Hedging the Oil Price Risk Factor on Airline Stock Returns in the Asia-Pacific: A test of Effective Hedging Instrument. Australia Accounting Business & Finance Journal, 17,122-146. doi: https://eds-s-ebscohost-com.csuglobal.idm.oclc.org/

This research studied the impression of hedging stock pricing with different futures hedging tools on decision-making stock returns. This research used data from 22 Asia-Pacific airline firms' stock returns to action with monthly data from 2010 to 2019. Using a research model to find the negative change of oil price risk on airline stock returns. As a result, the research found a relationship between gold futures and airline stock manufacture and a successful hedge, so investors might use a cross-hedging strategy to increase airline stock investment portfolio return.

Burke, F. G. (2014). Top-Down Analysis Sets the Stage for Sector Emphasis. Wall Street Transcript, pp. 193, 15–18. doi: https://web-s-ebscohost-com.csuglobal.idm.oclc.org/

This paper contains an interview with Frederic, Senior Vice President and Manager of Sandy Spring Trust. He answered many questions in this interview and, most importantly, a top-down analysis of how he used a market timing strategy in account of the economic cycle. A case illustration of a contract manufacturer showcases the successful use of integrated investment management functions for organizational turnaround and growth. The findings emphasize the framework's how risk might be a controlled solution for improving asset allocation strategy and understanding a corporation's balance sheet for better investment results.

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