



DELTA AIR LINES (NYSE: DAL)

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Investment Thesis

As airlines recovers from the pandemic, we believe that Delta is currently undervalued given it's prospective long term growth .

Market Dimension
Positive Industry Outlook after pandemic

Airline industry largely dominated by “Big Four”, high barriers to entry; Recovers from pandemic and exhibit future growth with **5-16% CAGR**

Target Price:
\$ 81.00

Company Dimension
quick recovery from pandemic,
strong consumer loyalty,
refinery acquisition with ESG
focus

Delta is one of the fastest airline that recovers from the pandemic, showing **record sales** by operating business model efficiently

Upside:
135%

Delta's outstanding consumer services creates strong consumer loyalty, providing long term growth through expansion of **new routes and aircrafts**.

Currently Trading:
\$ 34.33

The acquired refinery allows Delta to hedge against fuel price volatility and facilitate long term sustainability growth

EV/EBITA Multiple:
7.2x

Valuation Dimension
Strong financial performance
with great potential growth

Delta demonstrates strong operating efficiency through competitive financial multiples and strong cash flow generating ability.

Company Overview

Founded in 1925, Delta provides scheduled air transportation for passengers, freight, and mail over a network of routes.

Business Overview

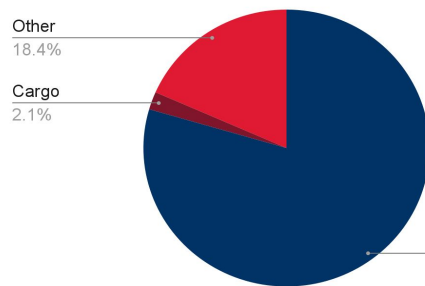
Delta Air Lines is one of the world's largest airlines by traffic and revenues. The company serves over 800 destinations in about 130 countries, and it operates a mainline fleet of 1,200 aircraft. The company serves more than 200 million customers annually and offer more than 5,000 departures daily.

Operations

- **Airline: 91.6%** of Delta's sales
 - **Passenger travel: 79.5%** of the sales.
- **Refinery: 8.4%** of Delta's sales

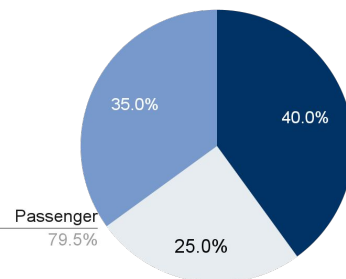
84% of the revenue comes from Domestic traveling.

Revenue Breakdown



Revenue Breakdown by Product type

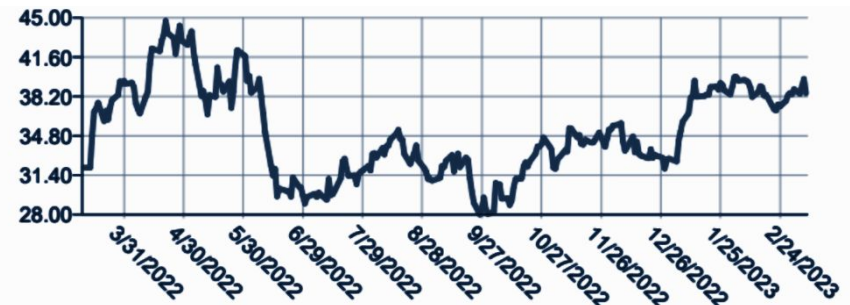
● Economy ● Business cabin ● Other



Key Trading Stats

Ticker Symbol	DAL
Market Cap	23,886.1M
Stock Price	34.33
52 weeks range	46.27 / 27.20
EPS	0.25
EV/EBITDAR	7.26

Stock Price



Market Dimension: Competitive Landscape in Airline Industry

The US airline industry can be separated into full service and low cost airlines, and is largely dominated by the Big Four.

Airline Industry Segments

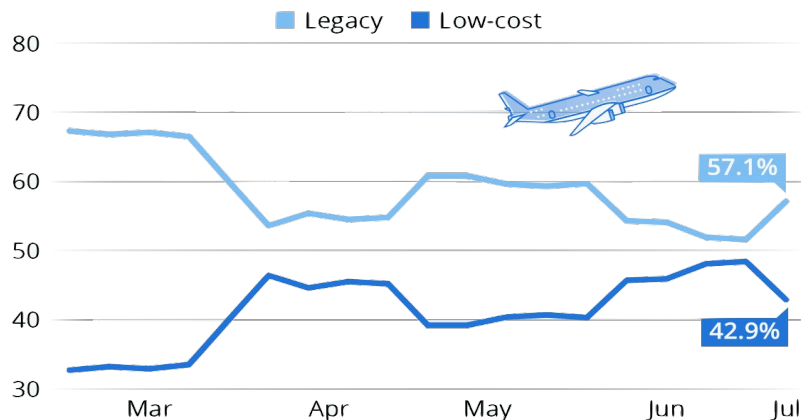
Full Service

- focus on network profitability (hubs)
- variance types of aircraft for flexibility & choices
- multiple website for ticket distribution
- multiple revenue sources(cargo, flyer programs)

Low Cost

- focus on route profitability
- limited type of aircraft to keep maintenance low
- tickets distributed solely on websites
- rely on ancillary revenue for profit

Percentage share of U.S. airline capacity by number of available seats



“Big Four” takes up >50% of the market

There are four large airline companies in the United States that takes up **66.1%** of the entire market. They are also known as the big four:

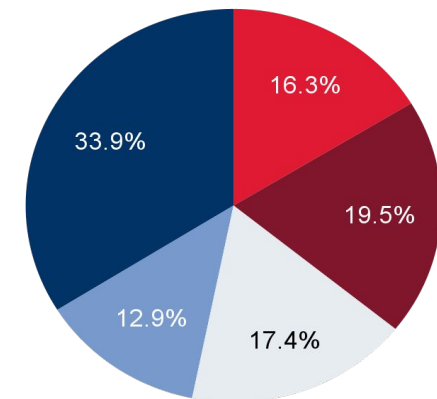
- **United Airlines**
- **Delta Airlines**
- **American Airlines**
- **Southwest Airlines**

Entry barriers for other airline companies:

On March 7, 2023, the Department of Justice sued the Jetblue and Spirit merger deal due to antitrust violations, which the deal if succeed, will make them the fifth largest airline in the United States.

US Airlines Market Share

- Delta
- American Airlines
- Southwest Airlines
- United Airlines
- Other



Market Dimension: Future growth trends and a growing industry

Airlines are connected to trends of technology advancements, and the industry is projected to grow.

According to the International Civil Aviation Organization, aviation is still a new enough industry to promise advancements in areas like **automation, AI, robotics, blockchain, and alternative energy sources.**

Specifically, services like boarding and booking, navigation and communication systems, and maintenance are increasingly automated, and AI is used more to develop the engineering and manufacturing steps.

Recovery from the pandemic

Projected **CAGR of between 5% and 16%** increase for the period from 2020-2030, backing up Delta's optimistic view for their future.

Leisure and vacation travel have already recovered, and airlines are prepared to counter slower business travel by altering ticket prices, aircraft use, flight paths, and other manipulatable tools.

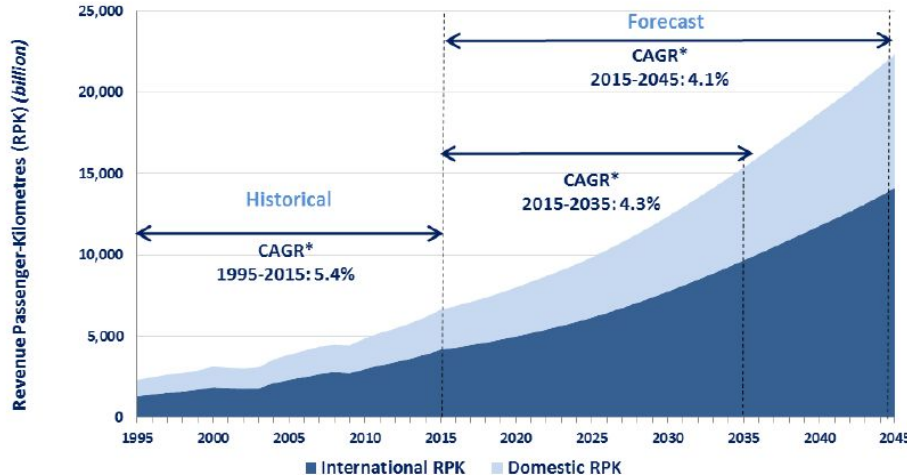
Consumer significance

According to ICAO, passengers increased by **47% in 2022**, while RPKs increased about **70%** in the same time period, "due to the rapid recovery of most international routes." Additionally, they predict a **4% increase** in passenger demand by 2024 over 2019 levels.

Sustainability

Aviation is changing to become more sustainable. For example, Delta has reduced single-use plastics by **~5 million pounds**, reduced fuel waste by **10 million gallons**, and partners with sustainable supply chain vendors.

Delta plans to replace **10% of its jet fuel** refined from fossil fuel with sustainable aviation fuel by the end of **2030**.



Company Dimension: Delta shows record sales, recovering rapidly

Delta has performed well even through the pandemic, and is projected to continue this success.

Delta's strong performance

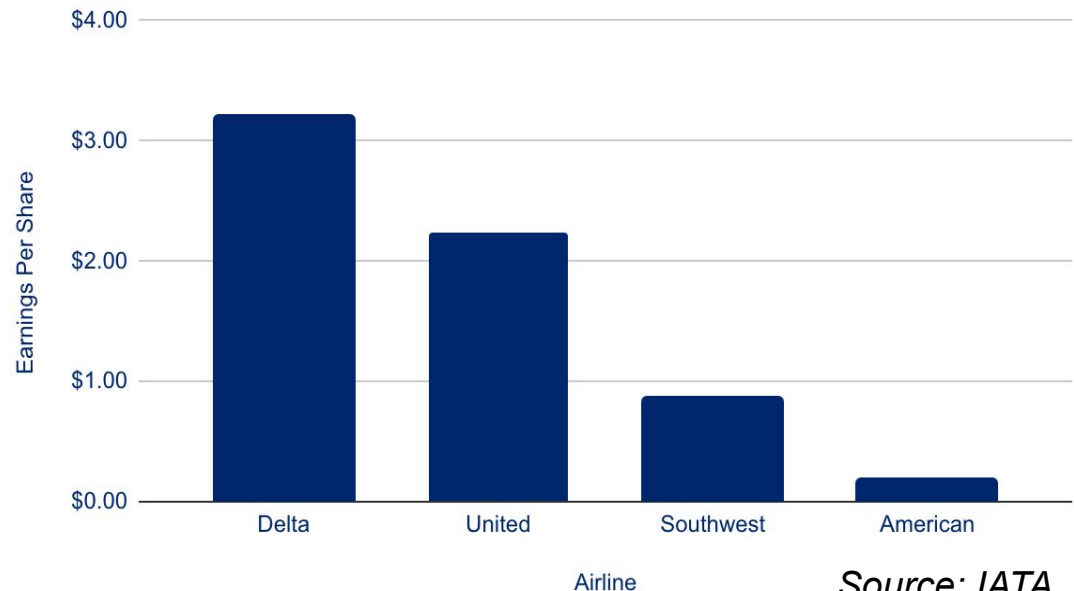
- Strong performance post-COVID
- Competitive EPS ratio
- Multiple income sources + financial freedom of having choices

Delta has recovered all losses that it experienced during the pandemic, and in fact **surpassed pre-COVID** levels of income in FY 2022.

Delta cites the following for its success:

- Competitive Advantages
- Industry Leadership
- Brand Preference
- Earnings Power
- Financial Foundation

Earnings per Share FY 2022



Source: IATA

Delta reported a **\$46 billion revenue** for FY 2022, a **19B\$ improvement** on 2021.

Delta's CEO Edward Bastian stated in Delta's earnings call for FY 2022 that "2024 targets of **more than \$7.00 of earnings per share** and **\$4 billion of free cash flow**".

Strong Recovery: Efficient Business Model demonstrated by KPI

Factors that made Delta the leader in the industry and facilitate its recovery

KPI Indicators

Load Factor measures the percentage of available seating capacity that has been filled with passengers and is a metric used in the airline industry.

Revenue Passenger Mile measures the number of miles traveled by paying passengers and is typically an airline traffic statistic. Revenue passenger miles are calculated by multiplying the number of paying passengers by the distance traveled.

Available Seat Miles measures an airplane's carrying capacity available to generate revenues. Available seat miles refers to how many seat miles are actually available for purchase on an airline.

Delta's KPI(In Millions of USD)

Load Factor	2022	2023
DAL	83.40	85.33
LUV	83.40	84.57
UAL	83.40	83.96
AAL	82.90	83.65

Revenue Passenger Miles		
DAL	195,480.00	235,683.20
LUV	123,843.00	144,606.75
UAL	206,791.00	246,563.30
AAL	215,624.00	232,216.31

Available Seat Miles		
DAL	233,226.00	276,717.62
LUV	148,467.00	171,127.60
UAL	247,858.00	293,378.14
AAL	260,226.00	278,243.86

Source: Bloomberg

Company Dimension: Expansion of Routes and Vehicles

Increasing reach and capabilities to drive growth



Route Expansion

Domestic Expansion

Delta Air is expanding its routes in Texas this summer, offering over 125 U.S. destinations through key hubs in Atlanta, New York, and Los Angeles, with a **20% increase in seats from Texas.**

International Expansion

Delta Air is expanding its holiday schedule to *Latin America*, **offering more than 25,000 daily outbound seats** to 44 destinations, with added flying from multiple U.S. hubs.

Delta Air **returns to London Gatwick** after 15 years absence, offering **daily nonstop flights to New York-JFK** and convenient connections to destinations across North America

Vehicle Acquisition

Aircraft Purchase Commitments

As part of a multi-year effort, we have been investing in new aircraft to provide an improved customer experience, greater fuel efficiency that results in reduced carbon emissions, better operating economics and more premium products. Our contractual purchase commitments for additional aircraft as of December 31, 2022 are detailed in the following table:

Aircraft purchase commitments by fleet type

Aircraft Purchase Commitments ⁽¹⁾	Delivery in Calendar Years Ending				Total
	2023	2024	2025	After 2025	
A220-300	9	15	12	24	60
A321-200neo	28	36	25	45	134
A330-900neo	6	9	3	—	18
A350-900	—	7	6	3	16
B-737-10	—	—	20	80	100
Total	43	67	66	152	328

⁽¹⁾ The timing of these commitments is based on our contractual agreements with the aircraft manufacturers and may be subject to change based on modifications to those agreements or changes in delivery schedules.

Delta Airlines has introduced the first of 33 Boeing 737s it recently purchased, to help the airline continue its scheduled operations, with the remaining planes being delivered monthly until October 2023.

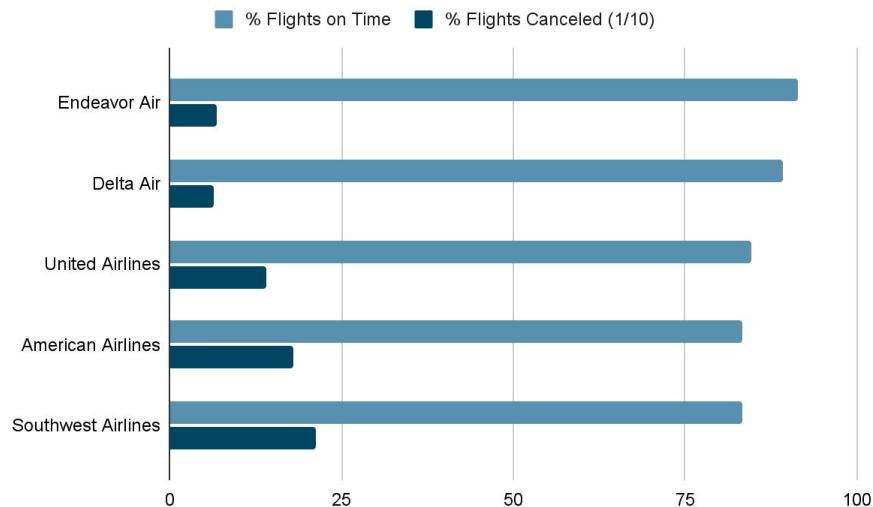
Delta has purchased 12 additional Airbus A220-300 aircraft, which have high fuel efficiency. Deliveries are expected in 2026 and 2027.

Smaller aircrafts can be used for new local flights while larger aircraft can be used for newer international flights.

Outstanding Service with Strong Consumer Loyalty

“World’s Most Admired Airline” - Fortune

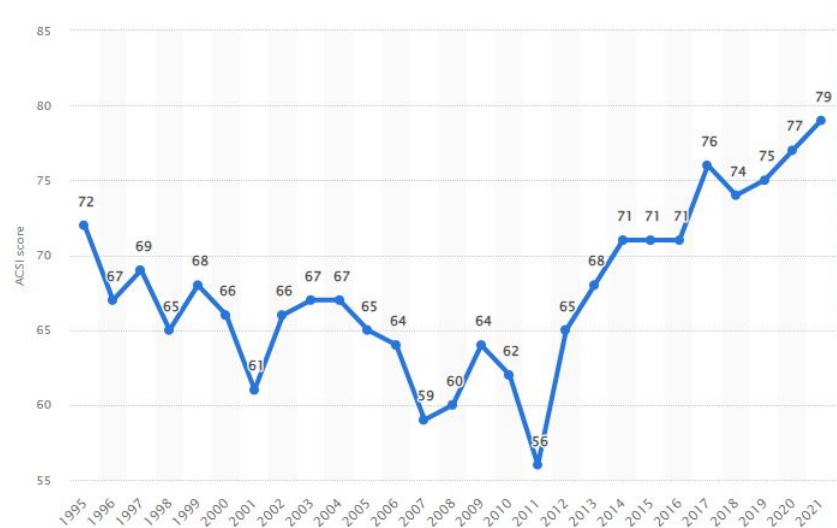
Proven Results Over Time



- Endeavor Air is a wholly-owned subsidiary of Delta Airlines
- Endeavor Air and Delta Air have the Highest Two Percentages of On-Time Flights
- Endeavor Air and Delta Air have the Lowest Two Percentages of Flight Cancellations

Upward Trend in Customer Satisfaction

- Customer Satisfaction has been on a drastic upward trend since 2011 and particularly consistent upward trend since 2018.
- Ranks #1 in Customer Satisfaction by North America Airline Satisfaction Study



Delta Air Lines took the crown for the best on-time arrival rate in 2022, as revealed by the Department of Transportation in its annual ranking of airlines.



Outstanding Service with Strong Consumer Loyalty

Why does customer satisfaction matter?

Delta's Mission

“ Delta's mission is to create opportunities, foster understanding and protect our planet and the people within it. ”



(in millions, except per share data)	Year Ended December 31,		
	2022	2021	2020
Operating Revenue:			
Passenger	\$ 40,218	\$ 22,519	\$ 12,883
Cargo	1,050	1,032	608
Other	9,314	6,348	3,604
Total operating revenue	50,582	29,899	17,095

Revenue from passengers makes up **80%** of operating revenue. Focusing on passengers is focusing on an increase in revenue.

Customer loyalty is also encouraged through loyalty programs like the “Sky Club” membership which has seen such a rise in recent years that Delta had to increase the price to reduce the amounts of people waiting in line to join in.

Importance of Customer Satisfaction

Customer Experience has a strong positive correlation with future purchase intentions. ([Temkin Group](#))

The Service-Profit Chain: Customer loyalty is a primary stimulator for profit and growth, while loyalty is a direct result of customer satisfaction. ([HBR](#))

There are many statistics that prove the importance of customer experience.



Company Dimension: Refinery Acquisition Reduce Fuel Price Volatility

Delta's Refinery Performance

Monroe Energy, a wholly owned subsidiary of Delta since 2012

Advantages for owning a refinery

-Delta is the only airline that doesn't get affected by the volatility of fuel price.

-Delta use their refinery smartly: converts crude oil into fuel for cars, heaters and trucks when jet fuel prices are high.

-Monroe Energy has enabled Delta Air Lines to cut fuel costs by **\$300MM** per year.

Delta spend **the least** on their air fuel.

Delta's fuel expenses is much less than then the average airline fuel expenses

Increase in operating revenue year after the other.

Company's Name	Air Fuel/\$ls
DELTA AIR LINES INC	22.7
AMERICAN AIRLINES GROUP INC	28.16
UNITED AIRLINES HOLDINGS INC	29.17
SOUTHWEST AIRLINES CO.	24.8
Average	26.21
Median	24.8

Refinery segment financial information

(in millions, except per gallon data)	Year Ended December 31,		% Increase (Decrease) ⁽¹⁾
	2022	2021	
Exchange products	\$ 3,475	\$ 2,293	52 %
Sales of refined products	278	40	595 %
Sales to airline segment	1,976	492	302 %
Third-party refinery sales	4,977	3,229	54 %
Operating revenue	<u>\$ 10,706</u>	<u>\$ 6,054</u>	77 %
Operating income (loss)	\$ 777	\$ (2)	NM
Refinery segment impact on average price per fuel gallon	\$ (0.23)	\$ —	NM

⁽¹⁾ Certain variances are labeled as not meaningful ("NM").

ESG Focus: Delta's Effort towards Sustainability

Growing a more sustainable and profitable airline

Growing a more sustainable and profitable refinery

-Efficient Aircraft Operations:

Reducing fuel consumption and lower fuel burn
Delta is taking various measures to reduce fuel consumption, including advocating for efficient air traffic control coordination, partnering with Aero Design Labs for new technologies to lower fuel burn, and collaborating with MIT to study contrails' impact on the earth's atmosphere.

-Clean Fuel:

Replacing fossil fuel by Sustainable Aviation Fuel (SAF), a biofuel produced from plant material that releases carbon dioxide when burned that is beneficial for plants growth.

-Revolutionary Fleet/ Partnership with Airbus

Delta is partnering with aviation innovators to create a sustainable long-haul aircraft, with a focus on hydrogen-powered planes with Airbus and electric flight with Joby Aviation. Their technical expertise and financial investments make them uniquely positioned to lead the way in revolutionizing the aviation industry.

As of 2022	2025	2035	2050
Carbon Council actions saved 10M+ gallons of fuel; launched MIT contrails collaboration	45M gal or 1% fuel burn savings [†] from operational improvements	3% operational fuel savings [†] , worth 1.1B cumulative gal vs. 2019; 80% reduction of addressable warming contrails*	5% operational fuel savings [†] ; 100% reduction in addressable warming contrails*

As of 2022	2030	2035	2050
Committed to 200M gallons of SAF offtakes; approximately 50 corporate customer SAF agreements signed	10% SAF usage by end of 2030	35% SAF usage	95+% SAF

As of 2022	2025	2035	2050
Partnership with Airbus ZEROe to explore hydrogen propulsion	10+% fuel efficiency gains [†] ; 5 partnerships with revolutionary tech players	20+% fuel efficiency gains [†] ; First operation of mainline revolutionary tech	40+% fuel efficiency gains [†] ; 25% of fleet made up of revolutionary aircraft

ESG Focus: Strong commitment shows through ESG metrics

Delta's Performance against Various Sustainable Metrics Using Best in Class Approach

ESG Index

Environmental Performance Index

DAL	90
LUV	60
UAL	80
AAL	85

Social Performance Index

DAL	57.5
LUV	92.5
UAL	12.5
AAL	50

Governance Performance Index

DAL	83.7
LUV	67.4
UAL	81.4
AAL	74.4

Highlights

Zero serious customer injuries in 2021

95% domestic employee vaccination rate achieved

33% of new hires for General Manager, Director and Managing Director roles are Black external candidates, up from 20% in 2020

0.8% improvement of fuel efficiency

Source: Delta ESG Report 2021

Valuation Perspective: Trading comps

From Delta's financial performance, there's a market consensus that the firm will exhibit the highest growth among the big four.

Company Screening:

We decided to use the other "Big Four" since they are in similar size and are the dominant players in the airline industry.

Key findings:

- Highest revenue & earnings among the Big four, strong profit generating ability and dominating the market;
- P/E multiple lower than industry average, showing the current stock price is undervalued;
- Higher EV/EBITA & EV/EBITAR shows investors expect higher growth

Company's Name	Market Data			Financial Data					Valuation			
	Price (\$/share)	Market Cap (\$M)	TEV (\$M)	Sales (\$M)	EBITDA (\$M)	EBIT (\$M)	Earnings (\$M)	EBITDAR	EV/EBITDA x	P/E x	EV/Sales x	EV/EBITDAR
DELTA AIR LINES INC	33.69	21603.33	45679.33	50580	5660	3662	1320	6593	6.93	11.99	0.84	7.26
AMERICAN AIRLINES GROUP INC	14.01	9145.96	43867.96	48970	4530	1607	127	5789	7.58	39.12	0.82	6.94
UNITED AIRLINES HOLDINGS INC	42.66	13938.25	33957.25	44960	4860	2337	737	5841	5.81	17.38	0.66	7.58
SOUTHWEST AIRLINES CO.	31.59	18790.00	15930.00	23810	2220	1016	539	2658	7.19	36.15	0.59	6.06
Average									6.88	26.16	0.73	6.96
Median									6.86	30.88	0.69	6.86

Valuation Perspective: DCF Model

Constant Growth Driven by Positive Industry Outlook, Strong KPI Performance and Outstanding Service

Terminal EBITDA at Year 5	112,44
WACC	6.70%
Exit Enterprise Value / EBITDA	7.2x
Terminal Value at End of Year 5	80,500
Present Value of Terminal Value (6.7% WACC)	58,280
(+) Present Value of Free Cash Flows (@ 6.7% WACC)	16308
(=) Current Enterprise Value	74588.4

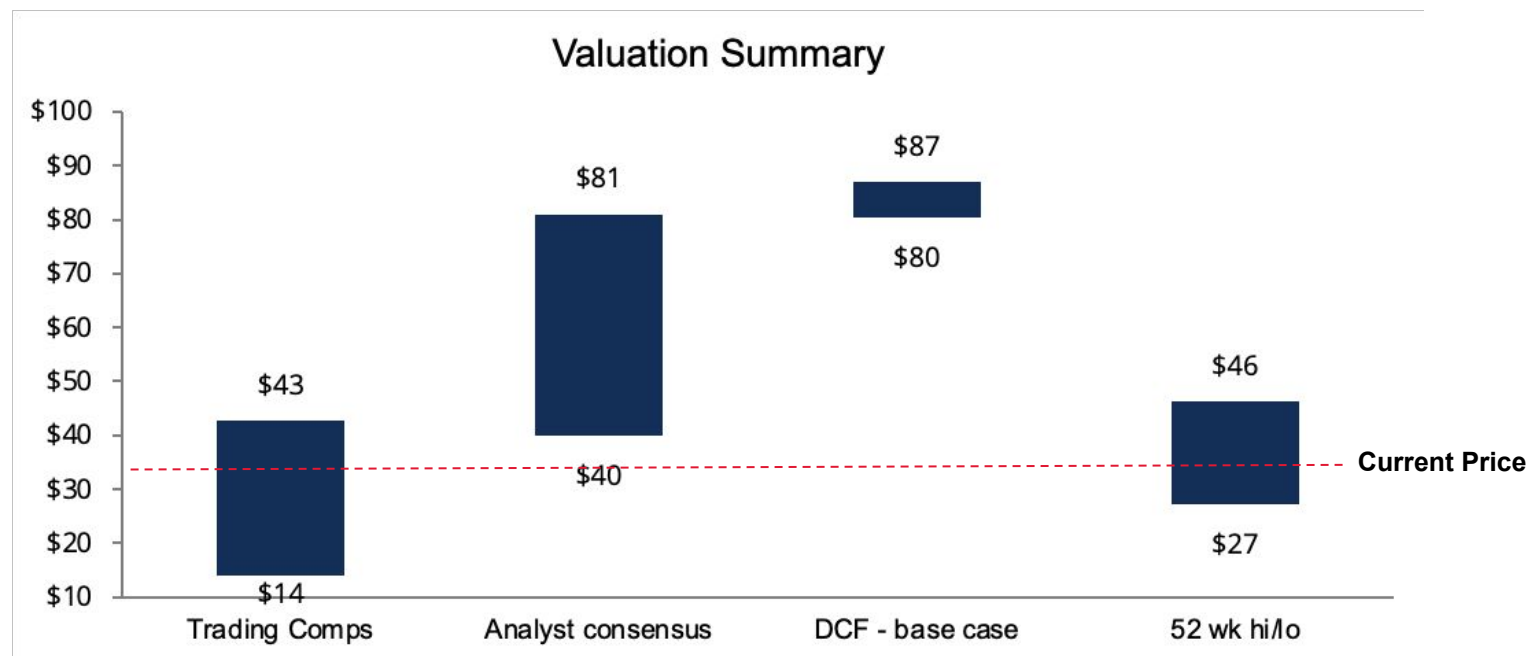
Short Term Debt	2860
(+) Long Term Debt	26700
(-) Cash and Marketable Securities	6611
(-) Current Net Debt	22949
(-) Current Preferred and Minority Interest	
(=) Equity Value	51,639
Shares outstanding	643
Estimated Value per Share	80.35
Current Price(USD)	34.33
Estimated Upside	135%

In Millions of USD except Per Share	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Revenue	41138	44438	47007	17095	29899	50582	57471	57708	58436	59196	59965
EBITDA	8188	7562	9395	-5884	-647	5644	8281	9229	9978	10272	11244
EBITDA Margin	20%	17%	20%	-34%	-2%	11%	15%	17%	18%	17%	18%
Free Cash Flow	2306	2492	4589	-10376	1296	2131	1326	2411	2614	6316	5907
Net Income/Net Profit (Losses)	3205	3935	4767	-12385	280	1318	3435.3	4634.6	4690.9	5360.3	6103.9

Valuation Summary: consensus shows Delta is undervalued

Across different valuation method, there's a clear indication that Delta's stock is undervalued

- **Current Price below both analyst consensus and DCF projection:** The current stock price for Delta is \$34.33, while the equity research reports as well as our team's DCF model has projected a target price higher than \$34.33.
- **DCF Base case:** From calculating the intrinsic value of Delta, we see company exhibits strong free cash generating ability, showing that the company is in stable growth and is suitable for long term investment
- **Deviation in Analyst projection:** The large deviation from different equity research report is largely due to the difference in multiple used; the lower bound \$40 reflects 0.50X forward 12-month sales from Feb 2023 , while the \$81 target price comes from using 11.5 P/E and 8x of EBITDAR with a 50:50 weight.
- **Lower end in Trading comps:** May due to macro headwinds, as the entire industry is still in the recovery phase from pandemic



Risk & Mitigation

There are market risks that may affect Delta's financial performance, but company has took action to mitigate it.

Risks

Instability in Oil Price

A one cent increase in the cost of jet fuel would result in approximately \$40 million of additional annual fuel expense based on annual pre-COVID-19 pandemic consumption of approximately four billion gallons of jet fuel.

Interest Rate

At December 31, 2022, Delta had \$17.9 billion of fixed-rate debt, \$3.6 billion of variable-rate debt and \$713 million of variable-rate leases.

Exchange Rate Risk

Delta is are subject to foreign currency exchange rate risk because we have revenue, expense and equity investments denominated in foreign currencies.

Reported Y23Q1 Loss

Delta reported a net loss of \$363 million during the first three months for the year 2023.

Mitigation

Monroe Refinery mitigation

Delta's jet fuel consumption during 2022 of 3.4 billion gallons was lower than its historical and expected future consumption. Delta's derivative contracts to hedge the financial risk from changing fuel prices are primarily related to Monroe's inventory.

Strong Liquidity

Delta had approximately \$9.4 billion in cash & cash equivalents, available to be drawn under Delta's revolving credit facilities ("liquidity") as of December 31, 2022.

Exchange Rate Mitigation

The foreign exchange risk is reasonable since delta operates in international scale. From time to time, Delta may also enter into foreign currency option and forward contracts.

Loss due to one time expense

On an adjusted basis, the airline reported a profit of \$163 million and expected strong summer booking demand

Conclusion

Buy recommendation on Delta's stock due to its strong business and financial performance.

Market Dimension

Positive Industry Outlook after pandemic

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Multiple:
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Valuation Dimension

Strong financial performance
with great potential growth

Delta demonstrates strong operating efficiency through top airline industry specific KPI performance, dominating the airline market

Appendix

EBITDA Multiple Method - Sensitivity Analysis						
Incremental change		Enterprise Value in Millions of USD				
1.5x	0.5%	Terminal EBITDA Multiple				
		4.2x	5.7x	7.2x	8.7x	10.2x
Discount Rate (WACC)	5.7%	52,275	65,075	77,874	90,674	103,473
	6.2%	51,207	63,708	76,209	88,710	101,211
	6.7%	50,167	62,378	74,588	86,799	99,010
	7.2%	49,154	61,083	73,011	84,940	96,868
	7.7%	48,168	59,822	71,476	83,130	94,785
		Value in USD				
		4.2x	5.7x	7.2x	8.7x	10.2x
5.7%		45.63	65.54	85.46	105.37	125.29
6.2%		43.97	63.42	82.87	102.32	121.77
6.7%		42.35	61.35	80.35	99.34	118.34
7.2%		40.77	59.33	77.89	96.45	115.01
7.7%		39.24	57.37	75.50	93.64	111.77
		Upside Potential				
		4.2x	5.7x	7.2x	8.7x	10.2x
5.7%		37%	96%	156%	216%	275%
6.2%		32%	90%	148%	207%	265%
6.7%		27%	84%	141%	198%	255%
7.2%		22%	78%	133%	189%	245%
7.7%		18%	72%	126%	181%	235%
		Implied Perpetuity Growth				
		4.2x	5.7x	7.2x	8.7x	10.2x
5.7%		-6.3%	-3.4%	-1.6%	-0.4%	0.4%
6.2%		-5.8%	-2.9%	-1.1%	0.1%	0.9%
6.7%		-5.4%	-2.5%	-0.7%	0.5%	1.4%
7.2%		-4.9%	-2.0%	-0.2%	1.0%	1.9%
7.7%		-4.5%	-1.5%	0.3%	1.5%	2.3%

Exit EBITDA multiple method (Bullish case)

Present value	(\$m)	(%)
PV of FCF	40,628.2	53.4%
PV of Terminal Value	35,481.5	46.6%
Enterprise value	76,109.7	100.0%
Net debt & adjustments	20,369.0	
Equity value	55,740.7	
Share price	87.0	
% premium to current	158.1%	

EBITDA Multiple Method						
Current Price (USD)		33.37				
Consensus Price Target		51.10				
DCF Estimated Value per Share (USD)		80.35				
DCF Estimated Upside		141%				
		Terminal EBITDA Multiple				
		4.2x	5.7x	7.2x	8.7x	10.2x
Discount Rate (WACC)	5.7%	45.63	65.54	85.46	105.37	125.29
	6.2%	43.97	63.42	82.87	102.32	121.77
	6.7%	42.35	61.35	80.35	99.34	118.34
	7.2%	40.77	59.33	77.89	96.45	115.01
	7.7%	39.24	57.37	75.50	93.64	111.77
		4.2x	5.7x	7.2x	8.7x	10.2x
5.7%		37%	96%	156%	216%	275%
6.2%		32%	90%	148%	207%	265%
6.7%		27%	84%	141%	198%	255%
7.2%		22%	78%	133%	189%	245%
7.7%		18%	72%	126%	181%	235%