COST OF CAPITAL STUDY

YIELD CAPITALIZATION

2025 ASSESSMENT YEAR

APPENDIX C

PASSENGER AIRLINES

								PAGE
EQUITY RATE							**14.80%**	
CAPITAL ASSET PRICING MODEL								
CAPM Ex Ante			11.39%					6
DIVIDEND GROWTH MODELS								
Value Line, based on Dividends Growth			NMF					7
Value Line, based on Residual Income Method			12.00%					7a
Value Line, based on Residual Income Method Multistage			14.00%					
Value Line, based on Earnings Growth			NMF					8
Value Line, based on Return on Equity			17.00%					9
					RANGE		11.388% - 17%	
DEBT RATE							**8.00%**	10
OPERATING LEASE DEBT RATE							**7.50%**	10
MARKET CAPITAL STRUCTURE					Tax Shield			
Equity	55%	x	14.80%	=			8.14%	3
Operating Leases	5%	x	7.50%	x	76.00%	=	0.29%	3
Debt	40%	x	8.00%	x	76.00%	=	2.43%	3
Marginal Tax Rate	24%							
WEIGHTED AVERAGE COST OF CAPITAL							**10.86%**	

SUPPORT FOR GUIDELINE COMPANIES

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

					Capital Structure at Book Value							
Company	**Ticker**	**Beta**	**P/E Ratio**	**Div'd Yield**	**Common Stock**	**%**	**Preferred Stock**	**%**	**Long Term Debt**	**%**	**Total Debt & Equity**	**%**
Alaska Air Group, Inc.	ALK	1.50	11.3	0.00%	4,371,962,756	78.5%	-	0.0%	1,198,000,000	21.5%	5,569,962,756	100.0%
Allegiant Travel Co	ALGT	1.45	15.7	0.00%	1,113,487,762	40.9%	-	0.0%	1,611,735,000	59.1%	2,725,222,762	100.0%
American Airlines Group	AAL	1.60	7.7	0.00%	3,975,642,526	13.6%	-	0.0%	25,154,000,000	86.4%	29,129,642,526	100.0%
Delta Air Lines, Inc.	DAL	1.60	8.0	0.99%	15,578,804,223	52.6%	-	0.0%	14,019,000,000	47.4%	29,597,804,223	100.0%
JetBlue Airways Corp.	JBLU	1.75	13.1	0.00%	2,693,390,000	24.8%	-	0.0%	8,147,000,000	75.2%	10,840,390,000	100.0%
Southwest Airlines Co.	LUV	1.10	20.4	2.14%	15,453,142,432	75.3%	-	0.0%	5,069,000,000	24.7%	20,522,142,432	100.0%
United Continental Holding, Inc	UAL	1.70	7.3		12,591,351,206	36.7%	-	0.0%	21,680,000,000	63.3%	34,271,351,206	100.0%
Mean		**1.53**	**11.93**	**0.52%**	**7,968,254,415**	**46.1%**		**0.0%**	**10,982,676,429**	**53.9%**		
Weighted Mean					**55,777,780,905**	**42.0%**		**0.0%**	**76,878,735,000**	**58.0%**	**132,656,515,905**	
Harmonic Mean		**1.50**	**10.47**		**3,575,183,685.99**	**33.3%**		**0.0%**	**3,622,422,664.06**	**42.2%**	**8,920,074,301.11**	
Median		**1.60**	**11.26**	**-**	**4371962756**	**40.9%**		**0.0%**	**8,147,000,000.00**	**59.1%**		
Max		**1.75**	**20.4**	**2.14%**	**15578804223**	**78.5%**		**0.0%**	**25154000000**	**86.4%**		
Min		**1.10**	**7.3**	**0.00%**	**1113487762**	**13.6%**		**0.0%**	**1198000000**	**21.5%**		
Say		**1.60**				**45%**		**0.0%**		**55%**		**100%**

MARKET VALUE

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Capital Structure at Market Value

Company	Ticker	Stock Price	Common Shares	Common Stock	%	Preferred Stock	%	Operating Lease	%	Long Term Debt	%	Total Debt & Equity	Sum
Alaska Air Group, Inc.	ALK	64.75	123,119,199	7,971,968,135	70.8%	-	0.0%	1,616,517,491	14.4%	1,664,000,000	14.8%	11,252,485,626	100%
Allegiant Travel Co	ALGT	94.12	18,407,799	1,732,542,042	48.8%	-	0.0%	148,143,964	4.2%	1,667,275,000	47.0%	3,547,961,006	100%
American Airlines Group	AAL	17.43	657,130,996	11,453,793,260	22.8%	-	0.0%	8,704,818,370	17.4%	30,010,000,000	59.8%	50,168,611,630	100%
Delta Air Lines, Inc.	DAL	60.50	654,571,606	39,601,582,163	67.1%	-	0.0%	4,130,322,190	7.0%	15,300,000,000	25.9%	59,031,904,353	100%
JetBlue Airways Corp.	JBLU	7.86	353,000,000	2,774,580,000	23.5%	-	0.0%	672,264,965	5.7%	8,337,000,000	70.7%	11,783,844,965	100%
Southwest Airlines Co.	LUV	33.62	888,111,634	29,858,313,135	79.0%	-	0.0%	1,369,807,315	3.6%	6,587,000,000	17.4%	37,815,120,450	100%
United Continental Holding, Inc	UAL	97.10	327,899,771	31,839,067,764	55.2%	-	0.0%	1,386,263,190	2.4%	24,423,000,000	42.4%	57,648,330,954	100%
			Mean		**52.5%**		**0.0%**		**7.8%**		**39.7%**		
			Weighted Mean	**125,231,846,500**	**54.2%**	**-**	**0.0%**	**18,028,137,483**	**7.80%**	**87,988,275,000**	**38.0%**	**231,248,258,983**	
			Median		**55.2%**		**0.0%**		**5.70%**		**42.4%**		
			Harmonic Mean		**42.0%**		**0.0%**		**5.1%**		**29.2%**		
			Max		**79.0%**		**0.0%**		**17.4%**		**70.7%**		
			Min		**22.8%**		**0.0%**		**2.4%**		**14.8%**		
			Std Dev		**22.3%**		**0.0%**		**5.8%**		**21.4%**		
			Coefficient of Variation		**0.43**		**0.0%**		**0.74**		**0.54**		
			Target		**55%**		**0%**		**5%**		**40%**		**100%**

Source:

Stock Price: Yahoo

Market Value Debt: 10-k Reported Fair Value

SUPPORT FOR MARKET MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Company	Ticker	Stock Price	Revenues	Multiple	Cash Flow	Multiple	Earnings	Multiple	Divds Decld	Multiple	Book Value	Multiple
Alaska Air Group, Inc.	ALK	64.75	95.31	0.7	9.80	6.6	4.87	13.3	NIL		35.51	1.8
Allegiant Travel Co	ALGT	94.12	139.51	0.7	16.80	5.6	2.48	38.0	1.20	78.4	60.49	1.6
American Airlines Group	AAL	17.43	82.51	0.2	5.00	3.5	1.96	8.9	-		6.05	2.9
Delta Air Lines, Inc.	DAL	60.50	88.80	0.7	10.15	6.0	6.16	9.8	0.50	121.0	23.80	2.5
JetBlue Airways Corp.	JBLU	7.86	26.82	0.3	1.18	6.7	0.71	11.1	NIL		7.63	1.0
Southwest Airlines Co.	LUV	33.62	46.20	0.7	3.80	8.8	0.96	35.0	0.72	46.7	17.40	1.9
United Continental Holding, Inc	UAL	97.10	172.90	0.6	19.60	5.0	10.61	9.2	NIL		38.40	2.5
		Mean		**0.5**		**6.0**		**17.9**		**82.0**		**2.0**
		Median		**0.7**		**6.0**		**11.1**		**78.4**		**1.9**
		Harmonic Mean		**0.4**		**5.6**		**12.9**		**70.7**		**1.8**
		Max		**0.7**		**8.8**		**38.0**		**121.0**		**2.9**
		Min		**0.2**		**3.5**		**8.9**		**46.7**		**1.0**
		Std Dev		**0.2**		**1.7**		**12.8**		**37.3**		**0.6**
		Coefficient of Variation		**0.38**		**0.28**		**0.72**		**0.45**		**0.32**
		Say		**0.50**		**5.00**		**11.00**		**NMF**		**2.00**

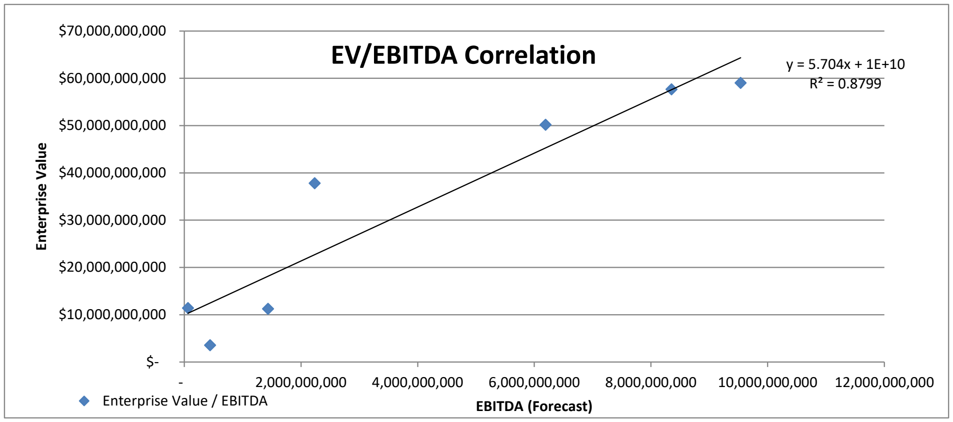
ENTERPRISE VALUE MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Guideline Companies	Ticker	EV+OL	EBITDA + OL historic	EV / EBITDA historic	Annual Change Rate (Growth)	EBITDA forecast	EV / EBITDA forecast	Revenue forecast	EV / Sales	CF	Debt Service	EV / CF
Alaska Air Group, Inc.	ALK	$ 11,252,485,626	1,360,000,000	8.27	5.6%	1,436,664,003	7.83	14,748,000,000	0.76	1,206,568,150	133,120,000	8.40
Allegiant Travel Co	ALGT	$ 3,547,961,006	424,023,000	8.37	4.5%	443,055,540	8.01	2,800,062,500	1.27	309,251,023	133,382,000	8.02
American Airlines Group	AAL	$ 50,168,611,630	6,101,000,000	8.22	1.5%	6,193,096,961	8.10	57,189,000,000	0.88	3,285,654,980	2,400,800,000	8.82
Delta Air Lines, Inc.	DAL	$ 59,031,904,353	9,056,000,000	6.52	5.3%	9,536,119,389	6.19	60,597,750,000	0.97	6,643,901,801	1,224,000,000	7.50
JetBlue Airways Corp.	JBLU	$ 11,406,844,965	63,000,000	181.06	-0.2%	62,891,566	181.37	9,905,000,000	1.15	416,540,000	666,960,000	10.53
Southwest Airlines Co.	LUV	$ 37,815,120,450	2,198,000,000	17.20	1.6%	2,233,056,552	16.93	29,264,000,000	1.29	3,374,824,209	526,960,000	9.69
United Continental Holding, Inc	UAL	$ 57,648,330,954	8,217,000,000	7.02	1.6%	8,350,069,147	6.90	61,753,950,000	0.93	6,426,835,512	1,953,840,000	6.88
Mean				**33.81**	**2.85%**		**33.62**		**1.04**			**8.55**
Median				**8.27**	**1.62%**		**8.01**		**0.97**			**8.40**
Harmonic Mean				**9.70**			**9.37**		**1.00**			**8.39**
Max				**181.06**	**5.64%**		**181.37**		**1.29**			**10.53**
Min				**6.52**	**-0.17%**		**6.19**		**0.76**			**6.88**
Std Dev				**65.03**	**2.3%**		**65.25**		**0.20**			**1.26**
Coefficient of Variation				**1.92**	**0.79**		**1.94**		**0.20**			**0.15**
Say				**36.00**	**2.00%**		**10.00**		**1.00**			**10.00**



Forecast EV/EBITDA By Rank

Guideline Companies	EV/EBITDA forecast		
Delta Air Lines, Inc.	6.19	**7.23**	**Low Average**
United Continental Holding, Inc	6.90	**7.4**	**Low Median**
Alaska Air Group, Inc.	7.83	**6.00**	**Say**
Allegiant Travel Co	8.01		
American Airlines Group	8.10	**53.60**	**High Average**
Southwest Airlines Co.	16.93	**12.5**	**High Median**
JetBlue Airways Corp.	181.37	**12.00**	**Say**

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
CAPITAL ASSET PRICING MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Ex Ante

Ke = Rf + β (Rp)

Ke =	**Cost of Equity**			**11.39%**
				to page 1
Rm =	rate of return	8.91%		
Rf =	risk free rate	4.78%		
Rp =	risk premium	4.13%		
B =	Beta	1.60		page 2

Rp =	**Risk Premium**			**4.13%**
				to above
	Shannon Pratt and Roger Grabowski	3.50% - 6.00%		
	Cost of Capital, Applications and Examples, Third Edition, 2008, page 113			
	Dr. Aswath Damodaran	4.33%	chart page 15	
	http://pages.stern.nyu.edu/~adamodar/	**4.13%**	adjusted for Rf	
	2024 Implied Premium			

Rf =	**Risk Free Rate**			**4.78%**
				to above

Value Line Investment Survey, Selected Yields January 10, 2025, page 206
as of 12-30-24

US Treasury Securities year end data

5 year	4.37%
10 year	4.55%
30 year	4.77%

Federal Reserve Statistical Release (http://www.federalreserve.gov/Releases/H15/Current/)
as of 12-31-2024

Treasury Constant Maturities

5 year	4.38%	
10 year	4.58%	
20 year	4.86%	
30 year	4.78%	
20 year TIPS	2.41%	2.45%
30 year TIPS	2.48%	2.30%
		TIPS inflation indication

Inflation	**2.30%**
	to appraisal template

The Livingston Survey, December 20, 2024, page 2, 8

Inflation median (measured by the CPI) over next 10 years — 2.28%

Gross Domestic Product (GDP) Nominal	**4.10%**
	real GDP + inflation

Federal Reserve Projected Long Run Real GDP Growth — 1.80%

Median Projection Value From Dec 18, 2024 Report table 1
https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20241218.pdf

Congressional Budget Office Real GDP Economic Projections

The Budget and Economic Outlook 2025-2035	2025-2029	Table C-3, pg 29
Average Percentage change Year To Year	2030-2035	2.20%
https://www.cbo.gov/system/files/2025-01/60870-Outlook-2025.pdf		1.90%

Federal Reserve Bank of Philadelphia

The Livingston Survey, December 20, 2024, page 8

Average Annual Real GDP Growth Rate for Next 10 Years — 2.11%

https://www.philadelphiafed.org/research-and-data/real-time-center/livingston-survey

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Based on Dividend Growth

$$K_e = (D_1 + BB_1 / P_o) + G_D$$

Ke =	Cost of Equity
D1 =	Expected Dividends
BB1 =	Expected Share Repurchase
P0 =	Current Stock Price
GD =	Sustainable Growth -- Dividend
assumption:	Sustainable growth can not exceed inflation plus real GDP

Company	Ticker	Stock Price (Po)	Expected FCFE1	Expected Dividend (D1)	Expected Buyback (BB1)	Dividend Yield (D1/Po)	Buyback Yield (BB1/Po)	Total Yield	Growth	K_e
Alaska Air Group, Inc.	ALK	64.75		0.00					31.95%	
Allegiant Travel Co	ALGT	94.12		0.00					0.00%	
American Airlines Group	AAL	17.43	NMF	0.00					0.00%	
Delta Air Lines, Inc.	DAL	60.50	5.32	0.60	4.72	0.99%	7.81%	8.80%	17.98%	26.78%
JetBlue Airways Corp.	JBLU	7.86	0.60	0.00	0.60		7.63%		0.00%	
Southwest Airlines Co.	LUV	33.62		0.72		2.14%			11.33%	
United Continental Holding, Inc	UAL	97.10	9.71	NIL				wa	0.00%	
							Mean	**8.80%**		**26.78%**
							Median	**8.80%**		**26.78%**
							Harmonic Mean	**8.80%**		**26.78%**
							Max	**8.80%**		**26.78%**
							Min	**8.80%**		**26.78%**
							Std Dev			
							Coefficient of Variation			

to page 1

NMF

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
RESIDUAL INCOME MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

$$K_e = (BVPS*(ROE-g)) / P_o) + g$$
$$\textit{where } g = b * ROE$$

Company	Ticker	Stock Price (Po)	Retention Rate (b)	Book Value Per Share (BVPS)	Return on Equity Forecast (ROE)	Sustainable Growth Rate (b * ROE)	K_e
Alaska Air Group, Inc.	ALK	64.75	0.25	35.51	26.50%	6.63%	17.52%
Allegiant Travel Co	ALGT	94.12	0.21	60.49	21.50%	4.41%	15.39%
American Airlines Group	AAL	17.43	0.23	6.05	22.50%	5.06%	11.12%
Delta Air Lines, Inc.	DAL	60.50	0.19	23.80	22.50%	4.28%	11.44%
JetBlue Airways Corp.	JBLU	7.86	0.18	7.63	NMF		
Southwest Airlines Co.	LUV	33.62	0.05	17.40	9.00%	0.45%	4.88%
United Continental Holding, Inc	UAL	97.10	0.18	38.40	18.00%	3.24%	9.08%
						Mean	**11.57%**
						Median	**11.28%**
						Harmonic Mean	**9.76%**
						Max	**17.52%**
						Min	**4.88%**
						Std Dev	**4.5%**
						Coeficient of Variation	**0.39**
					to page 1	**Say**	**12.00%**

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Based on Earnings Growth

$$K_e = (D_1 + BB_1 / P_o) + G_D$$

Ke = Cost of Equity
D1 = Expected Dividends
BB1 = Expected Share Repurchase
P0 = Current Stock Price
GD = Sustainable Growth -- Dividend
assumption: Sustainable growth can not exceed inflation plus real GDP

Company	Ticker	Stock Price (Po)	Expected FCFE1	Expected Dividend (D1)	Expected Buyback (BB1)	Dividend Yield (D1/Po)	Buyback Yield (BB1/Po)	Total Yield	Growth	K_e
Alaska Air Group, Inc.	ALK	64.75		0.00					31.95%	
Allegiant Travel Co	ALGT	94.12		0.00					0.00%	
American Airlines Group	AAL	17.43	NMF	0.00					0.00%	
Delta Air Lines, Inc.	DAL	60.50	5.32	0.60	4.72	0.99%	7.81%	8.80%	17.98%	26.78%
JetBlue Airways Corp.	JBLU	7.86	0.60	0.00	0.60		7.63%		0.00%	
Southwest Airlines Co.	LUV	33.62		0.72		2.14%			11.33%	
United Continental Holding, Inc	UAL	97.10	9.71	NIL					0.00%	
							Mean	**8.80%**		**26.78%**
							Median	**8.80%**		**26.78%**
							Harmonic Mean	**8.80%**		**26.78%**
							Max	**8.80%**		**26.78%**
							Min	**8.80%**		**26.78%**
							Std Dev			
							Coefficient of Variation			

to page 1

NMF

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Based on Return on Equity

Ke = (D1 / Po) + G

Ke = Cost of Equity
D1 = Expected Dividends
E1 = Expected Earnings
Po = Current Price
G = Growth
b = Retained Earnings % = (EPS - DPS) / EPS
ROE = Return on Equity = (E1 / Po)

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Expected Earnings (E1)	Dividend Yield (D1/Po)	Retained Earnings (b)	ROE (E1/Po)	Sustainable Growth Rate	K_e Dividends	K_e Earnings
Alaska Air Group, Inc.	ALK	64.75	0.00	5.75		100.0%	8.88%	8.88%		17.76%
Allegiant Travel Co	ALGT	94.12	0.00	6.00		100.0%	6.37%	6.37%		12.75%
American Airlines Group	AAL	17.43	0.00	2.25		100.0%	12.91%	12.91%		25.82%
Delta Air Lines, Inc.	DAL	60.50	0.60	7.55	0.99%	92.1%	12.48%	11.49%	12.48%	23.97%
JetBlue Airways Corp.	JBLU	7.86	0.00	0.60		100.0%	7.63%	7.63%		15.27%
Southwest Airlines Co.	LUV	33.62	0.72	1.65	2.14%	56.4%	4.91%	2.77%	4.91%	7.67%
United Continental Holding, Inc	UAL	97.10	NIL	13.25			13.65%			
								Mean	**8.69%**	**17.21%**
								Median	**8.69%**	**16.51%**
								Harmonic Mean	**7.04%**	**14.60%**
								Max	**12.48%**	**25.82%**
								Min	**4.91%**	**7.67%**
								Std Dev	**5.4%**	**6.9%**
								Coefficient of Variation	**0.62**	**0.40**

17.00%

to page 1

DATA INPUT

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Instructions: Data entered on this page will flow to the applicable worksheets.

				Historic Figures (2024)														
Guideline Companies		Stock Price 12/31/2023	Stock Price 12/31/2024	Beta levered	Revenues Per Share	Cash Flow Per Share	Earnings Per Share	Gross Equipment Per Share	Load Factor	%Net Profit Margin	Long-Term Debt ($Mil)	Dividends Per Share	Bk Value Per Share	Common Shares	Trailing P/E Ratio	Relative P/E Ratio	Net Operating Revenues ($Mil)	Operating Margin
Name	Ticker	Yahoo	Yahoo	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL /10K	VL	VL	VL	VL
Alaska Air Group, Inc.	ALK	39.07	64.75	1.50	95.31	9.80	4.87	124.48	83.9%	5.3%	4,538	NIL	35.51	123,119,199	15.20	0.70	11,735	14.2%
Allegiant Travel Co	ALGT	81.97	94.12	1.45	139.51	16.80	2.48	185.00	83.6%	1.8%	1,612	1.20	60.49	18,407,799	NMF	0.97	2,513	15.4%
American Airlines Group	AAL	13.74	17.43	1.60	82.51	5.00	1.96	83.31	84.9%	2.5%	25,462	-	6.05	657,130,996	8.70	0.36	54,211	10.0%
Delta Air Lines, Inc.	DAL	40.13	60.50	1.60	88.80	10.15	6.16	90.00	85.0%	7.0%	14,019	0.50	23.80	654,571,606	10.80	0.49	57,001	15.0%
JetBlue Airways Corp.	JBLU	5.55	7.86	1.75	26.82	1.18	0.71	43.50	83.2%	NMF	8,539	NIL	7.63	353,000,000	-	-	9,279	6.1%
Southwest Airlines Co.	LUV	28.73	33.62	1.10	46.20	3.80	0.96	58.00	80.0%	2.2%	5,069	0.72	17.40	888,111,634	32.80	1.03	27,483	7.5%
United Continental Holding, Inc	UAL	41.26	97.10	1.70	172.90	19.60	10.61	200.00	85.0%	6.2%	25,203	NIL	38.40	327,899,771	9.90	0.44	57,063	14.7%

Value Line February 2025

The harmonic mean is the preferable method for averaging multiples, such as the price/earning ratio, in which price is in the numerator. If these ratios are averaged using an arithmetic mean (a common error),
high data points are given greater weights than low data points.

The harmonic mean, on the other hand, gives equal weight to each data point
Morning Star Data ending 2024

DATA INPUT

WASHINGTON STATE DEPARTMEN

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Instructions: Data entered on this page wi

				Projected (Next Year) 2025													
Guideline Companies	**Net Profit ($Mil)**	**Income Tax Rate**	**Return on Shareholder Equity**	**Revenues Per Share**	**Cash Flow Per Share**	**Earnings Per Share**	**Gross Equipment Per Share**	**Load Factor**	**% Net Profit Margin**	**Dividends Per Share**	**Bk Value Per Share**	**Common Shares**	**Net Operating Revenues**	**Operating Margin**	**Net Profit ($Mil)**	**Return on Shareholder Equity**	**All Dividends to Net Profits**
Name	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**	**VL**
Alaska Air Group, Inc.	625	25.2%	14.3%	122.90	12.10	5.75	125.00	84.0%	4.7%		37.50	120,000,000	14,750	12.5%	690	15.5%	0.0%
Allegiant Travel Co	44	25.0%	4.1%	157.75	20.80	6.00	190.00	84.0%	3.8%		67.50	17,750,000	2,800	20.0%	106	9.0%	NIL
American Airlines Group	1,362	24.0%	NMF	86.65	5.30	2.25	84.10	83.0%	2.6%		0.60	660,000,000	57,200	10.1%	1,485	0.0%	NIL
Delta Air Lines, Inc.	3,990	23.3%	26.1%	93.95	11.75	7.55	92.00	85.0%	8.1%	0.60	27.90	645,000,000	60,600	16.0%	4,915	27.5%	8.0%
JetBlue Airways Corp.	(245)	NMF	**0.0%**	28.30	1.25	0.60	43.50	83.0%	NMF	-	9.00	350,000,000	9,900	9.4%	(210)	0.0%	NIL
Southwest Airlines Co.	597	23.2%	5.8%	49.60	4.60	1.65	60.20	83.2%	3.4%	0.72	17.30	590,000,000	29,250	9.5%	995	10.0%	44.0%
United Continental Holding, Inc	3,534	24.4%	27.9%	188.85	22.55	13.25	210.00	85.0%	7.1%	NIL	50.15	327,000,000	61,750	15.0%	4,370	26.5%	NIL

Value Line February 2025

Blue Last Year Data Not Available

The harmonic mean is the preferable method for averaging multiples, such as the price/earning ratio, in which price is in the numerator. If these ratios are averaged using an arithmetic mean (a common error),
high data points are given greater weights than low data points.

The harmonic mean, on the other hand, gives equal weight to each data point
Morning Star Data ending 2024

DATA INPUT

WASHINGTON STATE DEPARTMEI

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Instructions: Data entered on this page w

	Longer Term Forecasts														
	Dividends Per Share			Earnings Per Share			Revenue Per Share					Income Statement	Balance Sh		
Guideline Companies	2026	2030	% Annual Change	2026	2030	% Annual Change	2026	2030	% Annual Change	Return on Shareholder Equity	Retained to Common Equity	Operating Income	Current Assets	PP & E Gross	PP & E Net
Name	VL	VL		VL	VL		VL	VL		VL	VL	M*/10K	M*/10K	M*/10K	M* / 10K
Alaska Air Group, Inc.	0.20	0.80	31.95%	7.75	15.75	15.24%	132.50	174.30	5.64%	26.50%	25.00%	570,000,000	3,760,000,000	15,329,000,000	10,781,000,000
Allegiant Travel Co	0.00	1.20	0.00%	10.00	20.55	15.49%	169.45	211.05	4.49%	21.50%	20.50%	142,199,000	991,605,000	4,137,143,000	3,069,949,000
American Airlines Group	NIL	NIL	0.00%	2.60	3.70	7.31%	88.70	95.60	1.51%	22.50%	22.50%	2,614,000,000	21,019,000,000	54,735,000,000	31,127,000,000
Delta Air Lines, Inc.	0.70	1.60	17.98%	8.40	10.00	3.55%	34.10	44.15	5.30%	22.50%	19.00%	5,995,000,000	9,844,000,000	59,553,000,000	37,595,000,000
JetBlue Airways Corp.	NIL	NIL	0.00%	(0.20)	1.50	-249.63%	29.15	28.90	-0.17%	NMF	18.00%	(684,000,000)	4,258,000,000	14,418,000,000	10,175,000,000
Southwest Airlines Co.	0.76	1.30	11.33%	2.15	2.75	5.05%	54.05	58.50	1.59%	9.00%	5.00%	321,000,000	11,274,000,000	33,947,000,000	19,056,000,000
United Continental Holding, Inc	NIL	NIL	0.00%	15.00	17.00	2.53%	205.65	222.85	1.62%	18.00%	18.00%	5,096,000,000	18,883,000,000	68,031,000,000	42,908,000,000

TTM DATA UPDATE

Value Line February 2025

The harmonic mean is the preferable method for averaging multiples, such as the price/earning ratio, in which price is in the numerator. If these ratios are averaged using an arithmetic mean (a common error),
high data points are given greater weights than low data points.

The harmonic mean, on the other hand, gives equal weight to each data point
Morning Star Data ending 2024

DATA INPUT

WASHINGTON STATE DEPARTME

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Instructions: Data entered on this page wi

	eet			Cash Flow Statement	Other Financials			
Guideline Companies	**Intangibles (excl. GW)**	**Current Liabilities Total**	**Long Term Debt Less Current Maturities**	**Depreciation & Amortization**	**Carrying Value Debt**	**Fair Value Debt**	**Current Maturity Long Term Debt**	**Aircraft Rental Expense**
Name	**M*10K**	**10K/M***	**10-K/M***	**M-10K**	**10-K**	**10-K**	**10K**	**10-K**
Alaska Air Group, Inc.	208,000,000	6,145,000,000	1,198,000,000	583,000,000	4,933,000,000	1,664,000,000	442,000,000	207,000,000
Allegiant Travel Co	-	1,277,404,000	1,611,735,000	258,251,000	1,653,737,000	1,667,275,000	454,769,000	23,573,000
American Airlines Group	2,044,000,000	24,295,000,000	25,154,000,000	2,245,000,000	29,813,000,000	30,010,000,000	5,322,000,000	1,242,000,000
Delta Air Lines, Inc.	5,975,000,000	26,670,000,000	14,019,000,000	2,513,000,000	15,347,000,000	15,300,000,000	2,175,000,000	548,000,000
JetBlue Airways Corp.	415,000,000	3,881,000,000	8,147,000,000	655,000,000	8,539,000,000	8,337,000,000	392,000,000	92,000,000
Southwest Airlines Co.	300,000,000	12,276,000,000	5,069,000,000	1,657,000,000	6,616,000,000	6,587,000,000	1,630,000,000	220,000,000
United Continental Holding, Inc	2,683,000,000	23,314,000,000	21,680,000,000	2,928,000,000	24,653,000,000	24,423,000,000	2,973,000,000	193,000,000

Value Line February 2025

The harmonic mean is the preferable method for averaging multiples, such as the price/earning ratio, in which price is in the numerator. If these ratios are averaged using an arithmetic mean (a common error),
high data points are given greater weights than low data points.

The harmonic mean, on the other hand, gives equal weight to each data point
Morning Star Data ending 2024

12/31/2024

Passenger Airlines Bond Analysis

2022.5

Formulas

Company FINRA/ TRADING VIEW	Type/Symbol FINRA/ TRADING VIEW	Call	coupon	maturity	Price/Sales 2/25	Outstanding	current yield	maturity	Weighted A	Rating Moody's	S&P	Mkt Val	Mkt : Book	Embedded Rate	Debt Service	WAYTM	WAYTM	
American Airlines	CorBond AAL5005428	N	6.500	2025	103.07	1,150,000	6.31%	5.16%	0.03%									
American Airlines	AAL 3978262	Y	4.000	2025	99.49	209,388	4.02%	4.22%	0.00%		B-	$ 208,320	99.49%		8,376	0.005%	0.070%	
American Airlines	Corp Bond AAL4160717	Y	3.700	2028	89.52	463,683	4.13%	5.99%	0.01%		BB	$ 415,089	89.52%		17,156	0.015%	0.220%	
American Airlines	Corp Bond AAL4547142	Y	3.700	2025	98.87	220,723	3.74%	4.19%	0.00%	Ba2		$ 218,229	98.87%		8,167	0.005%	0.073%	
American Airlines	Corp Bond AAL4218569	Y	3.380	2027	96.38	947,778	3.51%	4.28%	0.02%		BB+	$ 913,468	96.38%		32,035	0.022%	0.321%	
American Airlines	Corp Bond AAL4442279	Y	3.650	2029	95.75	536,811	3.81%	4.42%	0.01%	Baa1		$ 513,997	95.75%		19,594	0.013%	0.187%	
American Airlines	Corp Bond AAL4442280	Y	4.000	2029	94.75	248,627	4.22%	4.96%	0.01%	Baa3		$ 235,574	94.75%		9,945	0.007%	0.098%	
American Airlines	Corp Bond AAL5706100	Y	8.500	2029	105.61	202,065	8.05%	7.38%	0.01%	Baa3	BB+	$ 213,401	105.61%		17,176	0.008%	0.118%	
American Airlines	Corp Bond AAL4867589	Y	3.150	2032	91.59	578,712	3.44%	4.24%	0.01%	Baa1	A-	$ 530,042	91.59%		18,229	0.013%	0.194%	
American Airlines	Corp Bond AAL4867590	Y	3.500	2032	88.32	289,358	3.96%	5.08%	0.01%	Baa3	BB+	$ 255,561	88.32%		10,128	0.008%	0.116%	
American Airlines	Corp Bond AAL4867591	Y	3.850	2028	95.63	228,438	4.03%	4.77%	0.01%	Ba2	B	$ 218,455	95.63%		8,795	0.006%	0.086%	
American Airlines	Corp Bond AAL3978262	Y	4.000	2027	92	209,388	4.35%	6.09%	0.01%		B+	$ 192,637	92.00%		8,376	0.007%	0.101%	
American Airlines	Corp Bond AAL4360356	Y	3.200	2028	95.45	567,360	3.35%	4.14%	0.01%	Baa1		$ 541,545	95.45%		18,156	0.013%	0.186%	
American Airlines	Corp Bond AAL4360357	Y	3.650	2029	80.41	261,284	4.54%	7.58%	0.01%	Baa3	BB	$ 210,098	80.41%		9,537	0.011%	0.156%	
American Airlines	Corp Bond AAL5538947	Y	5.500	2028	102.38	197,777	5.37%	4.99%	0.01%	Ba2		$ 202,484	102.38%		10,878	0.005%	0.078%	
American Airlines	Corp Bond AAL4327176	Y	3.580	2028	96.73	403,589	3.70%	4.26%	0.01%	Baa1	A-	$ 390,392	96.73%		14,448	0.009%	0.136%	
American Airlines	Corp Bond AAL4327177	Y	4.100	2028	97.86	262,218	4.19%	4.55%	0.01%	Baa3	BB+	$ 256,607	97.86%		10,751	0.006%	0.094%	
American Airlines	Corp Bond AAL3994092	Y	3.950	2025	98.99	256,635	3.99%	4.39%	0.01%	BB		$ 254,043	98.99%		10,137	0.006%	0.089%	
American Airlines	Corp Bond AAL3938875	Y	4.630	2025	99.75	2,500,000	4.64%	4.74%	0.06%	Ba3		$ 2,493,750	99.75%		115,750	0.063%	0.936%	
American Airlines	Corp Bond AAL4288271	Y	3.600	2027	97.45	403,647	3.69%	4.23%	0.01%	Baa1		$ 393,354	97.45%		14,531	0.009%	0.135%	
American Airlines	Corp Bond AAL4288272	Y	4.000	2027	96.33	239,271	4.15%	4.93%	0.01%	Baa3		$ 230,490	96.33%		9,571	0.006%	0.093%	
American Airlines	Copr Bond AAL4526208	Y	3.600	2029	89.78	190,817	4.01%	5.51%	0.01%	Baa3		$ 171,316	89.78%		6,869	0.006%	0.083%	
American Airlines	Corp Bond AAL4526209	Y	3.350	2029	94.8	411,996	3.53%	4.28%	0.01%	Baa1		$ 390,572	94.80%		13,802	0.009%	0.139%	
American Airlines	Corp Bond AAL4405825	Y	3.000	2028	94.46	557,654	3.18%	4.15%	0.01%	Baa1	A	$ 526,760	94.46%		16,730	0.012%	0.183%	
American Airlines	Corp Bond AAL4405827	Y	3.250	2028	92.63	256,143	3.51%	4.81%	0.01%	Baa3	BB+	$ 237,265	92.63%		8,325	0.007%	0.097%	
American Airlines	Corp Bond AAL4544076	Y	3.750	2025	98	107,955	3.83%	4.62%	0.00%	Ba2	B	$ 105,796	98.00%		4,048	0.003%	0.039%	
American Airlines	Corp Bond AAL5288053	Y	2.880	2034	87.750	757,825	3.28%	4.25%	0.02%	Baa	A-	$ 664,991	87.75%		21,825	0.017%	0.254%	
	1 **Book Val**	**100**		**sum**	**2573.75**	**$ 12,659,143**	**Percent of boo**	**2573.75%**	**0.32%**			**$ 10,984,238**	**86.77%**	**3.50%**	**$ 443,333**		**4.281%**	
FINRA																		
Delta Airlines	Corp Bond DAL 4277694	Y	3.630	2027	96.890	210,446	3.75%	4.41%	0.00%	A2	A+	$ 203,901	96.89%		$ 7,639	0.005%	0.073%	
Delta Airlines	Corp Bond DAL 4277695	Y	3.880	2027	91.89	46,765	4.22%	5.99%	0.00%	Baa1	A-	$ 42,972	91.89%		$ 1,814	0.001%	0.022%	
Delta Airlines	Corp Bond DAL 4962232	Y	2.000	2028	93.81	58,796	2.13%	3.25%	0.00%	Baa2	BB+	$ 55,157	93.81%		$ 1,176	0.001%	0.015%	
Delta Airlines	Corp Bond Dal 4622961	Y	4.380	2028	98.58	410,290	4.44%	4.68%	0.01%	Baa3	BB	$ 404,464	98.58%		$ 17,971	0.010%	0.152%	
Delta Airlines	Corp Bond DAL 4900990	Y	3.750	2029	95.720	473,950	3.92%	4.52%	0.01%	Baa3	BB	$ 453,665	95.72%		$ 17,773	0.011%	0.169%	
Delta Airlines	Corp Bond DAL 4962232	Y	2.000	2028	93.810	724,263	2.13%	3.25%	0.01%	A1	A+	$ 679,431	93.81%		$ 14,485	0.013%	0.186%	
Delta Airlines	Corp Bond DAL 4981655	Y	7.000	2025	100.240	811,770	6.98%	6.89%	0.03%	Baa2	BBB-	$ 813,718	100.24%		$ 56,824	0.030%	0.442%	
Delta Airlines	Corp Bond DAL 4962233	Y	2.500	2028	92.640	204,106	2.70%	4.02%	0.00%	A3	BBB	$ 189,084	92.64%		$ 5,103	0.004%	0.065%	
Delta Airlines	Corp Bond DAL 5047254	Y	4.500	2025	96.790	17,660	4.65%	5.92%	0.00%	Baa1		$ 17,093	96.79%		$ 795	0.001%	0.008%	
Delta Airlines	Corp Bond DAL 5047256	Y	4.750	2028	99.510	3,420,000	4.77%	4.85%	0.09%	Baa1		$ 3,403,242	99.51%		$ 162,450	0.089%	1.311%	
Delta Airlines	Corp Bond DAL 5000237	Y	7.380	2026	101.950	690,590	7.24%	6.74%	0.02%	Baa3	BB	$ 704,057	101.95%		$ 50,966	0.025%	0.367%	
	13 **Book Val**	**1300**		**sum**	**1061.830**	**7,068,636**	**% of book**	**54.51%**	**0.19%**			**$ 6,966,784**	**98.56%**	**4.77%**	**$ 336,995**		**2.811%**	
FINRA																		
Hawaiian Airlines	Corp Bond HA 4007037	N	4.950	2023	100.123	$ 116,280	4.94%	4.70%	0.00%	WR		116423.0244	100.12%		5,756	0.003%	0.043%	
	2 **Book Val**	**200**		**sum**	**100.123**	**$ 116,280**	**% of book**	**50.06%**	**0.00%**			**116,423**	**100.12%**		**5,756**		**0.043%**	
South West Airlines	LUV 4422286	Y	3.000	2026	97.220	300,000	3.09%	3.86%	0.01%	Baa1	BBB	$ 291,660	97.22%		9,000	0.006%	0.255%	
South West Airlines	LUV GG	Y	7.380	2027	105.630	100,000	6.99%	5.92%	0.00%	Baa1	BBB	$ 105,630	105.63%		7,380	0.003%	0.130%	
South West Airlines	LUV4982569	N	1.250	2025	99.470	1,610,000	1.26%	1.47%	0.01%	Baa1	BBB	$ 1,601,467	99.47%		20,125	0.013%	0.520%	
South West Airlines	LUV4565970	Y	3.450	2027	96.830	300,000	3.56%	4.24%	0.01%	Baa1	BBB	$ 290,490	96.83%		10,350	0.007%	0.280%	
South West Airlines	LUV4997739	Y	5.130	2027	101.430	1,730,000	5.06%	4.77%	0.04%	Baa1	BBB	$ 1,754,739	101.43%		88,749	0.044%	1.817%	
South West Airlines	LUV4947535	Y	2.630	2030	89.540	500,000	2.94%	4.29%	0.01%	Baa1	BBB	$ 447,700	89.54%		13,150	0.011%	0.473%	
	1 **Book Val**	**100**		**sum**	**590.12**	**$ 4,540,000**	**% of book**	**590.12%**	**0.08%**			**$ 4,491,686**	**98.94%**	**3.28%**	**$ 148,754**		**3.476%**	
FINRA																		
Allegiant Travel Co	ALGT5055733	Y	8.500	2024	104.631	$ 150,000,000	8.12%	5.21%	4.19%	Ba3		$ 156,946,500	104.63%		12,750,000	4.185%	5.211%	
	1 **Book Val**	**100**		**sum**	**104.631**	**$ 150,000,000**	**% of book**	**104.63%**	**4.19%**			**$ 156,946,500**	**104.63%**	**8.50%**	**$ 12,750,000**		**5.211%**	
FINRA																		
United Continental Holdings	UAL4631858	Yes	4.600	**2026**	98.250	142,833	4.68%	5.16%	0.00%	Baa3		$ 140,333	98.25%		6,570	0.004%	0.060%	
United Continental Holdings	UAL4792619	Yes	4.550	2031	89.130	296,445	5.10%	6.24%	0.01%	Baa1		$ 264,221	89.13%		13,488	0.010%	0.149%	
United Continental Holdings	UAL4403825	Yes	2.880	**2028**	93.610	636,512	3.08%	4.21%	0.01%	A3		$ 595,839	93.61%		18,332	0.014%	0.216%	
United Continental Holdings	UAL4110955	Yes	4.000	**2026**	98.950	433,619	4.04%	4.33%	0.01%		**BBB**	$ 429,066	98.95%		17,345	0.010%	0.152%	
United Continental Holdings	UAL4149528	Yes	3.750	2026	92.270	507,364	4.06%	6.28%	0.02%		**BBB+**	$ 468,145	92.27%		19,026	0.017%	0.258%	
United Continental Holdings	UAL4556769	Yes	3.650	2026	97.880	258,348	3.73%	4.32%	0.01%	Ba1		$ 252,871	97.88%		9,430	0.006%	0.090%	
United Continental Holdings	UAL5008650	Yes	6.500	**2027**	101.400	1,900,000	6.41%	6.13%	0.06%	Baa3		$ 1,926,600	101.40%		123,500	0.062%	0.942%	
United Continental Holdings	UAL4036436	Yes	4.300	**2025**	99.640	416,472	4.32%	4.46%	0.01%		**BBB**	$ 414,973	99.64%		17,908	0.010%	0.150%	
United Continental Holdings	UAL4556770	Yes	3.650	**2025**	97.550	236,173	3.74%	4.71%	0.01%	Ba2		$ 230,387	97.55%		8,620	0.006%	0.090%	
United Continental Holdings	UAL4307724	Yes	3.450	**2027**	95.740	333,652	3.60%	4.52%	0.01%	A2	**A+**	$ 319,438	95.74%		11,511	0.008%	0.122%	
United Continental Holdings	UAL4880184	Yes	2.700	**2032**	89.000	702,146	3.03%	4.12%	0.02%	A2		$ 624,910	89.00%		18,958	0.016%	0.234%	
United Continental Holdings	UAL4880185	Yes	2.900	**2028**	89.900	286,718	3.23%	5.05%	0.01%	Baa1		$ 257,759	89.90%		8,315	0.008%	0.117%	
United Continental Holdings	UAL4880186	Yes	3.500	**2028**	95.500	232,381	3.66%	4.44%	0.01%	Baa3		$ 221,924	95.50%		8,133	0.006%	0.083%	
United Continental Holdings	UAL4371219	Yes	3.450	**2028**	94.470	324,090	3.65%	4.61%	0.01%	Baa2		$ 306,168	94.47%		11,181	0.008%	0.121%	
United Continental Holdings	UAL4371220	Yes	3.100	**2028**	95.050	728,726	3.26%	4.12%	0.02%	A2		$ 692,654	95.05%		22,591	0.016%	0.243%	
United Continental Holdings	UAL4594839	No	3.500	2030	94.460	677,175	3.71%	4.38%	0.02%	A2		$ 639,660	94.46%		23,701	0.016%	0.240%	
United Continental Holdings	UAL4594838	No	3.700	2030	90.690	257,965	4.08%	5.23%	0.01%	Baa1		$ 233,948	90.69%		9,545	0.007%	0.109%	
United Continental Holdings	UAL5167038	Yes	4.375	2026	98.900	2,000,000	4.42%	4.72%	0.05%	Ba	**BB-**	$ 1,978,000	98.90%		87,500	0.051%	0.764%	
United Continental Holdings	UAL5167040	Yes	4.630	2029	96.750	2,000,000	4.79%	5.23%	0.06%	BA1	**BB-**	$ 1,935,000	96.75%		92,600	0.056%	0.846%	
	19 **Book Val**	**1900**		**sum**	**1809.14**	**$ 12,370,619**	**% of book**	**95.22%**	**0.33%**			**$ 11,931,897**	**96.45%**	**4.27%**	**$ 528,254**		**4.986%**	4.86%
																	3.468%	**Average**
					Total	**$ 186,754,679**				**Total**		**$ 191,437,527.31**	**102.51%**	**7.61%**	**$ 14,213,092.23**	**5.08%**		

This includes short term.

Embedded debt rate	7.6106%
Weighted average yield to maturity	5.0837%
Debt service / Market value	**7.4244%**

Not in bond guide: JetBlue , United Continental Holdings, Allegiant Travel, Delta Air, Data collected from BONDS FINRA website.

SUPPORT FOR DEBT RATING AND DEBT YIELD RATE

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

PASSENGER AIRLINES

Standard's and Poor's Website

Company	Ticker	Mergent's Ratings	S&P Ratings
Alaska Air Group, Inc.	ALK	Ba2	BB
Allegiant Travel Co	ALGT	B1	B+
American Airlines Group	AAL	B3	B+
Delta Air Lines, Inc.	DAL	Ba2	BBB-
JetBlue Airways Corp.	JBLU	B1	B-
Southwest Airlines Co.	LUV	Baa2	BBB
United Continental Holding, Inc	UAL	B1	BB
Overall Average Debt Rating		**B1**	**B+**

	All issues
Bond Yields for Guideline Companies, All Ratings	**15.00%**

Mergent's Bond Record January 2025

Corporate	**Aaa**	**Aa**	**A**	**Baa**
October	4.95%	5.17%	5.33%	5.63%
November	5.14%	5.33%	5.49%	5.78%
December	5.20%	5.37%	5.53%	5.80%
4th Qtr Average	**5.10%**	**5.29%**	**5.45%**	**5.74%**
Public Utilities		**Aa**	**A**	**Baa**
October		5.29%	5.41%	5.61%
November		5.43%	5.55%	5.75%
December		5.45%	5.58%	5.77%
4th Qtr Average		**5.39%**	**5.51%**	**5.71%**
Industrials	**Aaa**	**Aa**	**A**	**Baa**
October	4.95%	5.05%	5.24%	5.65%
November	5.14%	5.23%	5.43%	5.80%
December	5.20%	5.28%	5.47%	5.83%
4th Qtr Average	**5.10%**	**5.19%**	**5.38%**	**5.76%**

	BB-	**B+**	**B**
Bloomberg S&P Corporate Bond Yields	7.47%	7.53%	8.02%

Debt Yield Rate		**8.00%**
Operating Lease Debt Rate	*See Lease Bond Analysis 16 Tab*	**7.50%**
Cost of Secured Debt (Possessory Lease)	*Based on 4th Quarter Aa rate*	**5.25%**

to page 1

2023 Multi Stage Dividend Growth Model Using FCFE

Airline Industry

Assumptions:

4.10%	**GDP**
11.3	**Median Industry PE**
8.0%	**Target Dividend Payout Ratio**
10.0%	**Target ROE**

Alaska Air Group
ALK

		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow		
Historic		0		14.30%	180.70%	-80.70%	4.87			-64.75	price =	64.75
	2022	1	18.07%	15.50%	280.50%	-180.50%	5.75	-10.38		-10.38		
	2023	2	43.48%	18.25%	166.04%	-66.04%	8.25	-5.45		-5.45		
Stage 1	2024	3	30.30%	21.00%	110.74%	-10.74%	10.75	-1.15		-1.15		
	2025	4	23.26%	23.75%	79.44%	20.56%	13.25	2.72		2.72		
	2026	5	18.87%	26.50%	60.05%	39.95%	15.75	6.29		6.29		
	2027	6	15.91%	23.20%	55.87%	44.13%	18.26	8.06		8.06		
	2028	7	12.96%	19.90%	50.29%	49.71%	20.62	10.25		10.25		
Stage 2	2029	8	10.01%	16.60%	42.49%	57.51%	22.69	13.05		13.05		
	2030	9	7.05%	13.30%	30.83%	69.17%	24.29	16.80		16.80		
	2031	10	4.10%	10.00%	41.00%	59.00%	25.28	14.92	296.37	311.29		
Stage 3		11+	4.10%	10.00%	41.00%	59.00%	26.32	15.53				
									Ke =	**17.82%**		

Allegiant Travel Co
ALGT

		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow		
Historic		0		4.10%	1419.35%	-1319.35%	2.48			-94.12	price =	94.12
	2022	1	141.94%	9.00%	673.61%	-573.61%	6.00	-34.42		-34.42		
	2023	2	60.63%	12.13%	311.28%	-211.28%	9.64	-20.36		-20.36		
Stage 1	2024	3	37.74%	15.25%	179.68%	-79.68%	13.28	-10.58		-10.58		
	2025	4	27.40%	18.38%	117.05%	-17.05%	16.91	-2.88		-2.88		
	2026	5	21.51%	21.50%	83.84%	16.16%	20.55	3.32		3.32		
	2027	6	18.03%	19.20%	75.75%	24.25%	24.25	5.88		5.88		
	2028	7	14.54%	16.90%	65.46%	34.54%	27.78	9.60		9.60		
Stage 2	2029	8	11.06%	14.60%	51.93%	48.07%	30.86	14.83		14.83		
	2030	9	7.58%	12.30%	33.33%	66.67%	33.20	22.13		22.13		
	2031	10	4.10%	10.00%	41.00%	59.00%	34.56	20.39	405.08	425.47		
Stage 3		11+	4.10%	10.00%	41.00%	59.00%	35.97	21.22				
									Ke =	**12.78%**		

American Airlines Group
AAL

		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow		
Historic		0		NMF	147.96%	-47.96%	1.96			-17.43	price =	17.43
	2022	1	14.80%	0.00%	NMF	NMF	2.25	NMF		0.00		
	2023	2	16.11%	0.05625	246.68%	-146.68%	2.61	-3.83		-3.83		
Stage 1	2024	3	13.88%	0.1125	108.31%	-8.31%	2.98	-0.25		-0.25		
	2025	4	12.18%	0.16875	64.36%	35.64%	3.34	1.19		1.19		
	2026	5	10.86%	22.50%	42.26%	57.74%	3.70	2.14		2.14		
	2027	6	9.51%	20.00%	40.78%	59.22%	4.05	2.40		2.40		
	2028	7	8.16%	17.50%	38.88%	61.12%	4.38	2.68		2.68		
Stage 2	2029	8	6.80%	15.00%	36.35%	63.65%	4.68	2.98		2.98		
	2030	9	5.45%	12.50%	32.80%	67.20%	4.94	3.32		3.32		
	2031	10	4.10%	10.00%	41.00%	59.00%	5.14	3.03	60.23	63.26		
Stage 3		11+	4.10%	10.00%	41.00%	59.00%	5.35	3.16				
									Ke =	**15.53%**		

Delta Air Lines Inc
DAL

		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow		
Historic		0		26.10%	225.65%	-125.65%	6.16			-60.50	price =	60.50
	2022	1	22.56%	27.50%	29.50%	70.50%	7.55	5.32		5.32		
	2023	2	8.11%	26.25%	28.59%	71.41%	8.16	5.83		5.83		
Stage 1	2024	3	7.50%	25.00%	27.92%	72.08%	8.78	6.33		6.33		
	2025	4	6.98%	23.75%	27.47%	72.53%	9.39	6.81		6.81		
	2026	5	6.52%	22.50%	26.84%	73.16%	10.00	7.32		7.32		

	2027	6	6.04%	20.00%	27.77%	72.23%	10.60	7.66		7.66
	2028	7	5.55%	17.50%	28.97%	71.03%	11.19	7.95		7.95
Stage 2	2029	8	5.07%	15.00%	30.57%	69.43%	11.76	8.17		8.17
	2030	9	4.58%	12.50%	32.80%	67.20%	12.30	8.27		8.27
	2031	10	4.10%	10.00%	41.00%	59.00%	12.80	7.55	150.10	157.65
Stage 3		11+	4.10%	10.00%	41.00%	59.00%	13.33	7.86		
									Ke =	**17.52%**

JetBlue Airways Corp

JBLU		**Year**	**Growth Rate**	**ROE**	**Reinvestment Rate**	**Payout Ratio**	**Earnings**	**FCFE**	**Terminal Value**	**Cash Flow**		
Historic		0		0.00%	-154.93%	254.93%	0.71			-7.86	price =	7.86
	2022	1	-15.49%	0.00%	#DIV/0!	#DIV/0!	0.60	#DIV/0!		#DIV/0!		
	2023	2	37.50%	#VALUE!	#VALUE!	#VALUE!	0.83	#VALUE!		#VALUE!		
Stage 1	2024	3	27.27%	#VALUE!	#VALUE!	#VALUE!	1.05	#VALUE!		#VALUE!		
	2025	4	21.43%	#VALUE!	#VALUE!	#VALUE!	1.28	#VALUE!		#VALUE!		
	2026	5	17.65%	NMF	#VALUE!	#VALUE!	1.50	#VALUE!		#VALUE!		
	2027	6	14.94%	#VALUE!	#VALUE!	#VALUE!	1.72	#VALUE!		#VALUE!		
	2028	7	12.23%	#VALUE!	#VALUE!	#VALUE!	1.93	#VALUE!		#VALUE!		
Stage 2	2029	8	9.52%	#VALUE!	#VALUE!	#VALUE!	2.12	#VALUE!		#VALUE!		
	2030	9	6.81%	#VALUE!	#VALUE!	#VALUE!	2.26	#VALUE!		#VALUE!		
	2031	10	4.10%	#VALUE!	#VALUE!	#VALUE!	2.36	#VALUE!	27.62	#VALUE!		
Stage 3		11+	4.10%	10.00%	41.00%	59.00%	2.45	1.45				
									Ke =	**#VALUE!**		

Southwest Airlines Co

LUV		**Year**	**Growth Rate**	**ROE**	**Reinvestment Rate**	**Payout Ratio**	**Earnings**	**FCFE**	**Terminal Value**	**Cash Flow**		
Historic		0		5.80%	718.75%	-618.75%	0.96			-33.62	price =	33.62
	2022	1	71.88%	10.00%	166.67%	-66.67%	1.65	-1.10		-1.10		
	2023	2	16.67%	9.75%	146.52%	-46.52%	1.93	-0.90		-0.90		
Stage 1	2024	3	14.29%	9.50%	131.58%	-31.58%	2.20	-0.69		-0.69		
	2025	4	12.50%	9.25%	120.12%	-20.12%	2.48	-0.50		-0.50		
	2026	5	11.11%	9.00%	107.88%	-7.88%	2.75	-0.22		-0.22		
	2027	6	9.71%	9.20%	90.29%	9.71%	3.02	0.29		0.29		
	2028	7	8.31%	9.40%	73.45%	26.55%	3.27	0.87		0.87		
Stage 2	2029	8	6.90%	9.60%	57.31%	42.69%	3.49	1.49		1.49		
	2030	9	5.50%	9.80%	41.84%	58.16%	3.69	2.14		2.14		
	2031	10	4.10%	10.00%	41.00%	59.00%	3.84	2.26	44.97	47.24		
Stage 3		11+	4.10%	10.00%	41.00%	59.00%	3.99	2.36				
									Ke =	**3.60%**		

United Continental Holdings

UAL		**Year**	**Growth Rate**	**ROE**	**Reinvestment Rate**	**Payout Ratio**	**Earnings**	**FCFE**	**Terminal Value**	**Cash Flow**		
Historic		0		27.90%	248.82%	-148.82%	10.61			-97.10	price =	97.10
	2022	1	24.88%	26.50%	26.70%	73.30%	13.25	9.71		9.71		
	2023	2	7.08%	24.38%	27.11%	72.89%	14.19	10.34		10.34		
Stage 1	2024	3	6.61%	22.25%	27.86%	72.14%	15.13	10.91		10.91		
	2025	4	6.20%	20.13%	29.00%	71.00%	16.06	11.40		11.40		
	2026	5	5.84%	18.00%	30.50%	69.50%	17.00	11.82		11.82		
	2027	6	5.49%	16.40%	31.35%	68.65%	17.93	12.31		12.31		
	2028	7	5.14%	14.80%	32.40%	67.60%	18.86	12.75		12.75		
Stage 2	2029	8	4.79%	13.20%	33.69%	66.31%	19.76	13.10		13.10		
	2030	9	4.45%	11.60%	35.34%	64.66%	20.64	13.34		13.34		
	2031	10	4.10%	10.00%	41.00%	59.00%	21.48	12.68	251.85	264.53		
Stage 3		11+	4.10%	10.00%	41.00%	59.00%	22.37	13.20				
									Ke =	**18.31%**		

source: Value Line

2023 Multi Stage Ke Estimate Using Residual Income Model

Airline Industry

Assumptions:

4.01%	**Sustainable Growth Rate**
81.7%	**Target Dividend Payout Ratio**
20.0%	**Target ROE**

Future numbers are high due to unsustainable Growth rate. Base on Valueline

Alaska Air Group
ALK

		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow		
Historic		0			0.00%	100.00%	4.87		-64.75	price =	64.75
	2022	1	18.07%	15.50%	280.50%	-180.50%	5.75	-10.38	-10.38		
	2023	2	43.48%	18.25%	166.04%	-66.04%	8.25	-5.45	-5.45		
Stage 1	2024	3	30.30%	21.00%	110.74%	-10.74%	10.75	-1.15	-1.15		
	2025	4	23.26%	23.75%	79.44%	20.56%	13.25	2.72	2.72		
	2026	5	18.87%	26.50%	59.99%	40.01%	15.75	6.30	6.30		
	2027	6	15.90%	25.20%	51.29%	48.71%	18.25	8.89	8.89		
	2028	7	12.92%	23.90%	41.65%	58.35%	20.61	12.03	12.03		
Stage 2	2029	8	9.95%	22.60%	30.89%	69.11%	22.66	15.66	15.66		
	2030	9	6.98%	21.30%	18.83%	81.17%	24.25	19.68	19.68		
	2031	10	4.01%	20.00%	20.05%	79.95%	25.22	20.16	20.16		
Stage 3	2032	11	4.01%	20.00%	20.05%	79.95%	26.23	20.97	20.97		
	2033	12	4.01%	20.00%	20.05%	79.95%	27.28	21.81	21.81		
	2220	199	4.01%	20.00%	20.05%	79.95%	42,552.45	34,020.68	34,020.68		
	2221	200	4.01%	20.00%	20.05%	79.95%	44,258.80	35,384.91	35,384.91		
									14.74%		

Allegiant Travel Co
ALGT

		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow		
Historic		0			0.00%	100.00%	2.48		-94.12	price =	94.12
	2022	1	141.94%	9.00%	673.61%	-573.61%	6.00	-34.42	-34.42		
	2023	2	60.63%	12.13%	311.28%	-211.28%	9.64	-20.36	-20.36		
Stage 1	2024	3	37.74%	15.25%	179.68%	-79.68%	13.28	-10.58	-10.58		
	2025	4	27.40%	18.38%	117.05%	-17.05%	16.91	-2.88	-2.88		
	2026	5	21.51%	21.50%	83.76%	16.24%	20.55	3.34	3.34		
	2027	6	18.01%	21.20%	68.44%	31.56%	24.25	7.65	7.65		
	2028	7	14.51%	20.90%	52.68%	47.32%	27.77	13.14	13.14		
Stage 2	2029	8	11.01%	20.60%	36.45%	63.55%	30.83	19.59	19.59		
	2030	9	7.51%	20.30%	19.75%	80.25%	33.14	26.59	26.59		
	2031	10	4.01%	20.00%	20.05%	79.95%	34.47	27.56	27.56		
Stage 3	2032	11	4.01%	20.00%	20.05%	79.95%	35.85	28.66	28.66		
	2033	12	4.01%	20.00%	20.05%	79.95%	37.29	29.81	29.81		
	2220	199	4.01%	20.00%	20.05%	79.95%	58,161.60	46,500.20	46,500.20		
	2221	200	4.01%	20.00%	20.05%	79.95%	60,493.88	48,364.85	48,364.85		
									12.12%		

American Airlines Group
AAL

		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow		
Historic		0			0.00%	100.00%	1.96		-17.43	price =	17.43
	2022	1	14.80%	0.00%	NMF	NMF	2.25	NMF	0.00		
	2023	2	16.11%	0.05625	246.68%	-146.68%	2.61	-3.83	-3.83		
Stage 1	2024	3	13.88%	0.1125	108.31%	-8.31%	2.98	-0.25	-0.25		
	2025	4	12.18%	0.16875	64.36%	35.64%	3.34	1.19	1.19		
	2026	5	10.86%	22.50%	42.18%	57.82%	3.70	2.14	2.14		
	2027	6	9.49%	22.00%	36.91%	63.09%	4.05	2.56	2.56		
	2028	7	8.12%	21.50%	31.40%	68.60%	4.38	3.00	3.00		
Stage 2	2029	8	6.75%	21.00%	25.62%	74.38%	4.68	3.48	3.48		
	2030	9	5.38%	20.50%	19.56%	80.44%	4.93	3.96	3.96		
	2031	10	4.01%	20.00%	20.05%	79.95%	5.13	4.10	4.10		
Stage 3	2032	11	4.01%	20.00%	20.05%	79.95%	5.33	4.26	4.26		
	2033	12	4.01%	20.00%	20.05%	79.95%	5.54	4.43	4.43		
	2220	199	4.01%	20.00%	20.05%	79.95%	8,647.45	6,913.64	6,913.64		
	2221	200	4.01%	20.00%	20.05%	79.95%	8,994.21	7,190.87	7,190.87		
									13.52%		

Delta Air Lines Inc
DAL

		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow		
Historic		0			0.00%	100.00%	6.16		-60.50	price =	60.50
	2022	1	22.56%	27.50%	29.50%	70.50%	7.55	5.32	5.32		
	2023	2	8.11%	26.25%	28.59%	71.41%	8.16	5.83	5.83		
Stage 1	2024	3	7.50%	25.00%	27.92%	72.08%	8.78	6.33	6.33		
	2025	4	6.98%	23.75%	27.47%	72.53%	9.39	6.81	6.81		
	2026	5	6.52%	22.50%	26.76%	73.24%	10.00	7.32	7.32		
	2027	6	6.02%	22.00%	25.09%	74.91%	10.60	7.94	7.94		
	2028	7	5.52%	21.50%	23.33%	76.67%	11.19	8.58	8.58		
Stage 2	2029	8	5.02%	21.00%	21.49%	78.51%	11.75	9.22	9.22		
	2030	9	4.51%	20.50%	19.56%	80.44%	12.28	9.88	9.88		
	2031	10	4.01%	20.00%	20.05%	79.95%	12.77	10.21	10.21		
Stage 3	2032	11	4.01%	20.00%	20.05%	79.95%	13.28	10.62	10.62		
	2033	12	4.01%	20.00%	20.05%	79.95%	13.82	11.05	11.05		
	2220	199	4.01%	20.00%	20.05%	79.95%	21,548.53	17,228.05	17,228.05		
	2221	200	4.01%	20.00%	20.05%	79.95%	22,412.63	17,918.90	17,918.90		
									14.85%		

JetBlue Airways Corp

JBLU		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow		
Historic		0		0.00%	0.00%	100.00%	0.71		-7.86	price =	7.86
	2022	1	-15.49%	0.00%	0.00%	100.00%	0.60	0.60	0.60		
	2023	2	37.50%	#VALUE!	#VALUE!	#VALUE!	0.83	#VALUE!	#VALUE!		
Stage 1	2024	3	27.27%	#VALUE!	#VALUE!	#VALUE!	1.05	#VALUE!	#VALUE!		
	2025	4	21.43%	#VALUE!	#VALUE!	#VALUE!	1.28	#VALUE!	#VALUE!		
	2026	5	17.65%	NMF	#VALUE!	#VALUE!	1.50	#VALUE!	#VALUE!		
	2027	6	14.92%	#VALUE!	#VALUE!	#VALUE!	1.72	#VALUE!	#VALUE!		
	2028	7	12.19%	#VALUE!	#VALUE!	#VALUE!	1.93	#VALUE!	#VALUE!		
Stage 2	2029	8	9.46%	#VALUE!	#VALUE!	#VALUE!	2.12	#VALUE!	#VALUE!		
	2030	9	6.74%	#VALUE!	#VALUE!	#VALUE!	2.26	#VALUE!	#VALUE!		
	2031	10	4.01%	#VALUE!	#VALUE!	#VALUE!	2.35	#VALUE!	#VALUE!		
Stage 3	2032	11	4.01%	20.00%	20.05%	79.95%	2.44	1.95	1.95		
	2033	12	4.01%	20.00%	20.05%	79.95%	2.54	2.03	2.03		
	2220	199	4.01%	20.00%	20.05%	79.95%	3,965.59	3,170.49	3,170.49		
	2221	200	4.01%	20.00%	20.05%	79.95%	4,124.61	3,297.63	3,297.63		
								NMF			

Southwest Airlines Co

LUV		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow		
Historic		0		5.80%	0.00%	100.00%	0.96		-33.62	price =	33.62
	2022	1	71.88%	10.00%	166.67%	-66.67%	1.65	-1.10	-1.10		
	2023	2	16.67%	9.75%	146.52%	-46.52%	1.93	-0.90	-0.90		
Stage 1	2024	3	14.29%	9.50%	131.58%	-31.58%	2.20	-0.69	-0.69		
	2025	4	12.50%	9.25%	120.12%	-20.12%	2.48	-0.50	-0.50		
	2026	5	11.11%	9.00%	107.68%	-7.68%	2.75	-0.21	-0.21		
	2027	6	9.69%	11.20%	73.85%	26.15%	3.02	0.79	0.79		
	2028	7	8.27%	13.40%	51.12%	48.88%	3.27	1.60	1.60		
Stage 2	2029	8	6.85%	15.60%	34.81%	65.19%	3.49	2.27	2.27		
	2030	9	5.43%	17.80%	22.53%	77.47%	3.68	2.85	2.85		
	2031	10	4.01%	20.00%	20.05%	79.95%	3.83	3.06	3.06		
Stage 3	2032	11	4.01%	20.00%	20.05%	79.95%	3.98	3.18	3.18		
	2033	12	4.01%	20.00%	20.05%	79.95%	4.14	3.31	3.31		
	2220	199	4.01%	20.00%	20.05%	79.95%	6,456.90	5,162.29	5,162.29		
	2221	200	4.01%	20.00%	20.05%	79.95%	6,715.82	5,369.30	5,369.30		
									8.52%		

United Continental Holdings

UAL		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow		
Historic		0		27.90%	0.00%	100.00%	10.61		-97.10	price =	97.10
	2022	1	24.88%	26.50%	26.70%	73.30%	13.25	9.71	9.71		
	2023	2	7.08%	24.38%	27.11%	72.89%	14.19	10.34	10.34		
Stage 1	2024	3	6.61%	22.25%	27.86%	72.14%	15.13	10.91	10.91		
	2025	4	6.20%	20.13%	29.00%	71.00%	16.06	11.40	11.40		
	2026	5	5.84%	18.00%	30.40%	69.60%	17.00	11.83	11.83		
	2027	6	5.47%	18.40%	27.75%	72.25%	17.93	12.95	12.95		
	2028	7	5.11%	18.80%	25.22%	74.78%	18.85	14.09	14.09		
Stage 2	2029	8	4.74%	19.20%	22.79%	77.21%	19.74	15.24	15.24		
	2030	9	4.38%	19.60%	20.46%	79.54%	20.60	16.39	16.39		
	2031	10	4.01%	20.00%	20.05%	79.95%	21.43	17.13	17.13		
Stage 3	2032	11	4.01%	20.00%	20.05%	79.95%	22.29	17.82	17.82		
	2033	12	4.01%	20.00%	20.05%	79.95%	23.18	18.53	18.53		
	2220	199	4.01%	20.00%	20.05%	79.95%	36,156.94	28,907.47	28,907.47		
	2221	200	4.01%	20.00%	20.05%	79.95%	37,606.83	30,066.66	30,066.66		
									15.38%		

source: Value Line

IMPLIED PREMIUMS FOR US MARKET

Updated January 2023

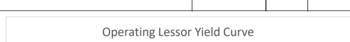
These implied premiums are calculated using the S&P 500.

Year	Earnings Yield	Dividend Yield	S&P 500	Earnings *	Dividends*	Dividends + Buybacks	Change in Earnings	Change in Dividends	T.Bill Rate	T.Bond Rate	Bond-Bill	Smoothed Growth	Implied Premium (DDM)	Analyst Growth Estimate	Implied Premium (FCFE)
1960	5.34%	3.41%	58.11	3.10	1.98				2.66%	2.76%	0.10%	2.45%			
1961	4.71%	2.85%	71.55	3.37	2.04		8.60%	2.91%	2.13%	2.35%	0.22%	2.41%	2.92%		2.92%
1962	5.81%	3.40%	63.1	3.67	2.15		8.79%	5.21%	2.73%	3.85%	1.12%	4.05%	3.56%		3.56%
1963	5.51%	3.13%	75.02	4.13	2.35		12.75%	9.45%	3.12%	4.14%	1.02%	4.96%	3.38%		3.38%
1964	5.62%	3.05%	84.75	4.76	2.58		15.23%	10.08%	3.54%	4.21%	0.67%	5.13%	3.31%		3.31%
1965	5.73%	3.06%	92.43	5.30	2.83		11.20%	9.42%	3.93%	4.65%	0.72%	5.46%	3.32%		3.32%
1966	6.74%	3.59%	80.33	5.41	2.88		2.23%	1.96%	4.76%	4.64%	-0.12%	4.19%	3.68%		3.68%
1967	5.66%	3.09%	96.47	5.46	2.98		0.85%	3.37%	4.21%	5.70%	1.49%	5.25%	3.20%		3.20%
1968	5.51%	2.93%	103.86	5.72	3.04		4.81%	2.09%	5.21%	6.16%	0.95%	5.32%	3.00%		3.00%
1969	6.63%	3.52%	92.06	6.10	3.24		6.66%	6.49%	6.58%	7.88%	1.30%	7.55%	3.74%		3.74%
1970	5.98%	3.46%	92.15	5.51	3.19		-9.72%	-1.61%	6.53%	6.50%	-0.03%	4.78%	3.41%		3.41%
1971	5.46%	3.10%	102.09	5.57	3.16		1.15%	-0.74%	4.39%	5.89%	1.50%	4.57%	3.09%		3.09%
1972	5.23%	2.70%	118.05	6.17	3.19		10.76%	0.71%	3.84%	6.41%	2.57%	5.21%	2.72%		2.72%
1973	8.16%	3.70%	97.55	7.96	3.61		28.93%	13.24%	6.93%	6.90%	-0.03%	8.30%	4.30%		4.30%
1974	13.64%	5.43%	68.56	9.35	3.72		17.48%	3.14%	8.00%	7.40%	-0.60%	6.42%	5.59%		5.59%
1975	8.55%	4.14%	90.19	7.71	3.73		-17.54%	0.30%	5.80%	7.76%	1.96%	5.99%	4.13%		4.13%
1976	9.07%	3.93%	107.46	9.75	4.22		26.39%	13.10%	5.08%	6.81%	1.73%	8.19%	4.55%		4.55%
1977	11.43%	5.11%	95.1	10.87	4.86		11.53%	15.07%	5.12%	7.78%	2.66%	9.52%	5.92%		5.92%
1978	12.11%	5.39%	96.11	11.64	5.18		7.07%	6.60%	7.18%	9.15%	1.97%	8.48%	5.72%		5.72%
1979	13.48%	5.53%	107.94	14.55	5.97		25.01%	15.23%	10.38%	10.33%	-0.05%	11.70%	6.45%		6.45%
1980	11.04%	4.74%	135.76	14.99	6.44		3.01%	7.81%	11.24%	12.43%	1.19%	11.01%	5.03%		5.03%
1981	12.39%	5.57%	122.55	15.18	6.83		1.31%	6.08%	14.71%	13.98%	-0.73%	11.42%	5.73%		5.73%
1982	9.83%	4.93%	140.64	13.82	6.93		-8.95%	1.58%	10.54%	10.47%	-0.07%	7.96%	4.90%		4.90%
1983	8.06%	4.32%	164.93	13.29	7.12		-3.84%	2.76%	8.80%	11.80%	3.00%	9.09%	4.31%		4.31%
1984	10.07%	4.68%	167.24	16.84	7.83		26.69%	9.85%	9.85%	11.51%	1.66%	11.02%	5.11%		5.11%
1985	7.42%	3.88%	211.28	15.68	8.20		-6.91%	4.74%	7.72%	8.99%	1.27%	7.89%	4.03%	6.75%	3.84%
1986	5.96%	3.38%	242.17	14.43	8.19		-7.93%	-0.15%	6.16%	7.22%	1.06%	5.54%	3.36%	6.96%	3.58%
1987	6.49%	3.71%	247.08	16.04	9.17		11.10%	11.99%	5.47%	8.86%	3.39%	9.66%	4.18%	8.58%	3.99%
1988	8.20%	3.68%	277.72	24.12	10.22		50.42%	11.49%	6.35%	9.14%	2.79%	9.76%	4.12%	7.67%	3.77%
1989	6.80%	3.32%	353.4	24.32	11.73		0.83%	14.80%	8.37%	7.93%	-0.44%	9.58%	3.85%	7.46%	3.51%
1990	6.58%	3.74%	330.22	22.65	12.35		-6.87%	5.26%	7.81%	8.07%	0.26%	7.39%	3.92%	7.19%	3.89%
1991	4.58%	3.11%	417.09	19.30	12.97		-14.79%	5.03%	7.00%	6.70%	-0.30%	6.34%	3.27%	7.81%	3.48%
1992	4.16%	2.90%	435.71	20.87	12.64		8.13%	-2.59%	5.30%	6.68%	1.38%	4.67%	2.83%	9.83%	3.55%
1993	4.25%	2.72%	466.45	26.90	12.69		28.89%	0.41%	3.50%	5.79%	2.29%	4.73%	2.74%	8.00%	3.17%
1994	5.89%	2.91%	459.27	31.75	13.36		18.03%	5.34%	5.00%	7.82%	2.82%	7.23%	3.06%	7.17%	3.55%
1995	5.74%	2.30%	615.93	37.70	14.17		18.74%	6.00%	3.50%	5.57%	2.07%	5.65%	2.44%	6.50%	3.29%
1996	4.83%	2.01%	740.74	40.63	14.89		7.77%	5.10%	5.00%	6.41%	1.41%	6.13%	2.11%	7.92%	3.20%
1997	4.08%	1.60%	970.43	44.09	15.52		8.52%	4.25%	5.35%	5.74%	0.39%	5.45%	1.67%	8.00%	2.73%
1998	3.11%	1.32%	1229.23	44.27	16.20		0.41%	4.37%	4.33%	4.65%	0.32%	4.60%	1.38%	7.20%	2.26%
1999	3.07%	1.14%	1469.25	51.68	16.71		16.74%	3.16%	5.37%	6.44%	1.07%	5.75%	1.20%	12.50%	2.05%
2000	3.94%	1.23%	1320.28	56.13	16.27		8.61%	-2.65%	5.73%	5.11%	-0.62%	3.71%	1.65%	12.00%	2.87%
2001	3.85%	1.37%	1148.09	38.85	15.74	30.08	-30.79%	-3.24%	1.80%	5.05%	3.25%	3.56%	1.73%	10.30%	3.62%
2002	5.23%	1.83%	879.82	46.04	16.08	29.83	18.51%	2.15%	1.20%	3.81%	2.61%	3.57%	2.29%	8.00%	4.10%
2003	4.87%	1.61%	1111.91	54.69	17.88	31.58	18.79%	11.19%	1.00%	4.25%	3.25%	5.35%	2.12%	11.00%	3.69%
2004	5.58%	1.60%	1211.92	67.68	19.407	40.60	23.75%	8.54%	2.18%	4.22%	2.04%	4.90%	2.02%	8.50%	3.65%
2005	5.47%	1.79%	1248.29	76.45	22.38	61.17	12.96%	15.32%	4.31%	4.39%	0.08%	6.16%	2.20%	8.00%	4.08%
2006	6.18%	1.77%	1418.3	87.72	25.05	73.16	14.74%	11.93%	4.88%	4.70%	-0.18%	5.93%	1.97%	12.50%	4.16%
2007	5.62%	1.89%	1468.36	82.54	27.73	95.36	-5.91%	10.70%	3.31%	4.02%	0.71%	5.03%	2.06%	5.00%	4.37%
2008	7.24%	3.11%	903.25	65.39	28.05	67.52	-20.78%	1.15%	1.59%	2.21%	0.62%	2.11%	4.05%	4.00%	6.43%
2009	5.35%	2.00%	1115.10	59.65	22.31	37.43	-8.78%	-20.46%	0.14%	3.84%	3.70%	0.28%	2.60%	7.20%	4.36%
2010	6.65%	1.84%	1257.64	83.66	23.12	55.53	40.25%	3.63%	0.13%	3.29%	3.16%	3.33%	2.24%	6.95%	5.20%
2011	7.72%	2.07%	1257.60	97.05	26.02	**71.28**	16.01%	12.54%	0.03%	1.88%	1.85%	2.75%	2.71%	7.18%	6.01%
2012	7.18%	2.13%	1426.19	102.47	30.44	75.90	5.58%	16.99%	0.05%	1.76%	1.71%	2.93%	2.47%	5.27%	5.78%
2013	5.81%	1.96%	1848.36	107.45	36.28	88.13	4.86%	19.19%	0.07%	3.04%	2.97%	5.01%	2.03%	4.28%	4.96%
2014	5.49%	1.92%	2058.90	113.01	39.44	101.98	5.17%	8.71%	0.05%	2.17%	2.12%	2.77%	2.24%	5.58%	5.78%
2015	5.20%	2.11%	2043.94	106.32	43.16	106.10	-5.92%	9.43%	0.21%	2.27%	2.06%	2.96%	2.46%	5.51%	6.12%
2016	4.86%	2.01%	2238.83	108.86	45.03	108.67	2.39%	4.33%	0.51%	2.45%	1.94%	2.64%	2.41%	5.54%	5.69%
2017	4.67%	1.86%	2673.61	124.94	49.73	108.28	14.77%	10.44%	1.39%	2.41%	1.02%	3.22%	2.36%	7.05%	5.08%
2018	5.92%	2.14%	2506.85	148.34	53.61	136.65	18.73%	7.80%	2.37%	2.68%	0.31%	3.24%	2.50%	4.12%	5.96%
2019	5.03%	1.82%	3230.78	*162.35*	*58.80*	150.50	9.44%	9.68%	1.55%	1.92%	0.37%	2.57%		3.96%	5.20%
2020	3.68%	1.51%	3756.07	138.12	56.70	127.78	-14.92%	-3.57%	0.09%	0.93%	0.84%	0.74%	1.65%	5.42%	4.72%
2021	4.33%	1.24%	4766.18	206.38	59.20	147.24	47.67%	4.41%	0.06%	1.51%	1.45%	1.71%	1.72%	6.47%	4.24%
2022	5.72%	1.78%	3839.50	219.49	68.34	181.99	6.35%	15.44%	4.42%	3.88%	-0.54%	5.59%	2.16%	6.41%	5.94%
2023	4.61%	1.46%	4769.83	219.70	69.69	164.25	0.10%	1.98%	5.20%	3.88%	-1.32%	3.60%	1.97%	6.41%	4.60%
2024	4.14%	1.25%	5881.63	243.32	73.40	182.80	10.75%	5.32%	5.07%	4.58%	-0.49%	4.70%	1.76%	9.57%	4.33%

http://pages.stern.nyu.edu/~adamodar/

Aircraft Bond Analysis

Issuer Name	Symbol	Callable	Sub-Product Type	Coupon	Dated	Maturity	Term	Moody's®	S&P	Size	Trade Date	Trade Price	YTM	Remaining Term	Wtd. YTM	Wtd. Term
AMERICAN AIRLINES INC 2014-1 CL B PASS T	AAL4160720	Yes	Corporate	4.375	09/16/2014	04/01/2024	9.5		B	215,424	09/07/2022	99.28	4.86%	2.0	0.022%	0.0090
AMERICAN AIRLINES INC 2014-1 CL A PASS T	AAL4160717	No	Corporate	3.700	09/16/2014	04/01/2028	13.5		BBB+	741,460	04/01/2025	85.04	9.55%	6.0	0.147%	0.0926
AMERICAN AIRLS 2013-2 CL A PASS THRU TR	AAL4150076	Yes	Corporate	4.950	07/15/2014	07/15/2024	10.0		B-	1,329,214	12/30/2022	99.77	5.11%	2.3	0.141%	0.0646
AMERICAN AIRLINES 2021-1A PASS THROUGH TR	AAL4150077	Yes	Corporate	2.875	01/11/2036	10/22/2024	11.2	Baa1	A-	757,825	12/29/2022	80.52	15.61%	2.6	0.246%	0.0408
AMERICAN AIRLS 2015-1 PASS THRU TRS	AAL4150078	Yes	Corporate	3.700	03/16/2015	11/01/2024	9.6		B	266,046	12/14/2022	98.87	4.33%	2.6	0.024%	0.0143
AMERICAN AIRLS 2015-2 PASS THRU TRS	AAL4150079	Yes	Corporate	4.400	09/24/2015	03/22/2025	9.5	Ba3	B	239,271	12/13/2022	97.25	5.70%	3.0	0.028%	0.0149
AMERICAN AIRLS INC 2016-1 CL B PASS THRU	AAL4327179	Yes	Corporate	5.250	01/19/2016	07/15/2025	9.5	Ba3	B	227,758	12/20/2022	97.12	6.48%	3.3	0.031%	0.0158
AMERICAN AIRLS 2017-1 CL B PASS THRU TR	AAL4442554	Yes	Corporate	4.950	01/13/2017	08/15/2026	9.6	Ba2		197,777	12/21/2022	94.00	6.83%	4.4	0.028%	0.0182
AMERICAN AIRLS 2010-1 PASS THRU TR	AAL3687892	Yes	Corporate	6.250	04/17/2018	10/22/2024	6.5	Baa1	B	67,704	12/20/2022	99.87	6.32%	2.6	0.009%	0.0036
AMERICAN AIRLS 2013-1A	AAL3978262	Yes	Corporate	4.000	07/15/2014	01/15/2027	12.5		B-	480,762	12/21/2022	85.12	8.39%	4.8	0.084%	0.0484
AMERICAN AIRLS INC SER 2017-2B PASS THRU	AAL4547142	Yes	Corporate	3.700	10/05/2017	04/15/2027	9.5	Ba2		220,723	11/02/2022	89.62	6.42%	5.1	0.029%	0.0234
AMERICAN AIRLINES INC 2021-1B PASS THRU TR	AAL5291551	Yes	Corporate	3.950	09/16/2014	01/11/2032	17.3	Baa#	BB+	202,065	12/29/2022	81.03	6.79%	9.8	0.029%	0.0410
AMERICAN AIRLS 2015-1 PASS THRU TRS	AAL4218569	Yes	Corporate	3.375	03/16/2015	11/01/2028	13.6		BB+	947,778	12/29/2022	81.97	7.21%	6.6	0.142%	0.1299
AMERICAN AIRLS 2015-2 PASS THRU TRS	AAL4288271	Yes	Corporate	3.600	09/24/2015	03/22/2029	13.5	Baa1	A-	583,226	12/22/2022	90.37	5.44%	7.0	0.066%	0.0850
AMERICAN AIRLS 2015-2 PASS THRU TRS	AAL4288272	Yes	Corporate	4.000	09/24/2015	03/22/2029	13.5	Baa3	BB	239,271	12/21/2022	80.00	8.14%	7.0	0.041%	0.0349
AMERICAN AIRLS INC 2016-1 CL A PASS THRU	AAL4327177	Yes	Corporate	4.100	01/19/2016	07/15/2029	13.5	Baa3	BB+	262,218	12/23/2022	81.85	7.67%	7.3	0.042%	0.0400
AMERICAN AIRLS INC 2016-1 CL AA PASS THR	AAL4327176	Yes	Corporate	3.575	01/19/2016	07/15/2029	13.5	Baa1	A-	584,374	12/22/2022	89.96	5.41%	7.3	0.066%	0.0892
AMERICAN AIRLS INC CL B PASS THRU CTFS S	AAL4867590	Yes	Corporate	3.500	08/15/2019	08/15/2033	14.0	Ba2	B	228,438	12/16/2022	76.31	6.63%	11.4	0.032%	0.0543
AMERICAN AIRLS PASS THRU 2016-2 AA	AAL4360356	Yes	Corporate	3.200	05/16/2016	12/15/2029	13.6	Baa1	A-	567,360	12/22/2022	87.49	5.37%	7.8	0.063%	0.0916
AMERICAN AIRLS PASS THRU TR 2016-2 A	AAL4360357	Yes	Corporate	3.650	05/16/2016	12/15/2029	13.6	Baa3	BB	261,284	12/28/2022	75.97	8.26%	7.8	0.045%	0.0422
AMERICAN AIRLS 2017-1 CL A PASS THRU TR	AAL4442280	Yes	Corporate	4.000	01/13/2017	08/15/2030	13.6	Baa3		248,627	12/30/2022	72.55	9.06%	8.4	0.047%	0.0436
AMERICAN AIRLS 2017-1 CL AA PASS THRU TR	AAL4442279	Yes	Corporate	3.650	01/13/2017	08/15/2030	13.6	Baa1		536,811	12/29/2022	89.57	5.33%	8.4	0.060%	0.0941
AMERICAN AIRLS 2017-2 CL A PASS THRU TR	AAL4526208	Yes	Corporate	3.500	08/14/2017	04/15/2031	13.7	Baa3		252,254	12/16/2022	79.31	6.79%	9.1	0.036%	0.0477
AMERICAN AIRLS 2017-2 CL AA PASS THRU TR	AAL4526209	Yes	Corporate	3.350	08/14/2017	04/15/2031	13.7	Baa1		544,644	12/22/2022	85.16	5.61%	9.1	0.064%	0.1030
AMERICAN AIRLS INC CL A PASS THRU CTFS S	AAL4867590	Yes	Corporate	3.500	08/15/2019	08/15/2033	14.0	Baa3	BB+	289,358	12/20/2022	73.42	7.10%	11.4	0.043%	0.0688
AMERICAN AIRLS INC CL AA PASS THRU CTFS	AAL4867589	Yes	Corporate	3.150	08/15/2019	08/15/2033	14.0	Baa1	A-	578,712	12/29/2022	83.12	5.24%	11.4	0.063%	0.1376
ALASKA AIRLS 2020-1 PASS-THRU TR	ALK5005663	Yes	Corporate	4.800	07/02/2020	02/15/2029	8.6		A	965,772	12/19/2022	95.32	5.71%	6.9	0.115%	0.1391
DELTA AIR LINES PASS THRU TRS 2019-1AA	DAL4806640	Yes	Corporate	3.204	03/13/2019	04/25/2024	5.1	A1		425,000	12/30/2022	97.11	5.50%	2.1	0.049%	0.0184
DELTA AIR LINES PASS THRU TR 2015-1B	DAL4277696	Yes	Corporate	4.250	08/24/2015	01/30/2025	9.4	Baa2	BB+	118,027	10/24/2022	97.38	5.49%	2.8	0.013%	0.0070
DELTA AIR LINES PASS THRU TR 2015-1AA	DAL4277694	Yes	Corporate	3.625	01/30/2016	01/30/2029	13.0	A2	A+	312,524	12/27/2022	91.50	5.27%	6.8	0.034%	0.0445
HAWAIIAN AIRLS 2013-1B PASS THRU TR	HA4007037	No	Corporate	4.950	01/15/2014	07/15/2023	9.5	Caa1	CCC+	116,280	12/20/2021	100.12	4.87%	1.3	0.012%	0.0032
HAWAIIAN AIRLS 2013-1A PASS THRU TR	HA4007036	No	Corporate	3.900	05/29/2013	07/15/2027	14.1	Ba3	B	328,260	12/29/2022	85.65	7.70%	5.3	0.053%	0.0365
JETBLUE AWYS CORP 2020-1 PASS THRU TR	JBLU5025288	Yes	Corporate	7.750	08/17/2020	05/15/2030	9.7	Baa2		172,330	12/29/2022	96.02	8.48%	8.2	0.030%	0.0293
JETBLUE AWYS CORP 2020-1 PASS THRU TR	JBLU5025287	Yes	Corporate	4.000	08/17/2020	05/15/2034	13.7	A2		635,462	12/08/2022	89.60	5.22%	12.2	0.069%	0.1610
JETBLUE AWYS CORP 2019-1B PASS THRU TR	JBLU5030444	Yes	Corporate	8.000	08/17/2020	05/15/2029	8.7	Baa2		635,463	12/12/2022	89.28	10.32%	7.2	0.137%	0.0948
SPIRIT AIRLS INC SAVE PASS THRU CTFS SER	SAVE4274165	Yes	Corporate	4.100	08/11/2015	10/01/2029	14.1		BBB	455,622	12/29/2022	84.09	7.10%	7.5	0.067%	0.0712
SPIRIT AIRLS CL AA PASS THRU CTFS SER 20	SAVE4565279	Yes	Corporate	3.375	11/28/2017	08/15/2031	13.7		A-	247,099	12/29/2022	80.35	6.37%	9.4	0.033%	0.0484
SPIRIT AIRLS CL AA PASS THRU CTFS SER 201	SAVE4565280	Yes	Corporate	3.650	11/28/2017	08/15/2031	13.7		BB-	59,747	12/02/2022	79.75	6.77%	9.4	0.008%	0.0117
UNITED AIRLS PASS THRU TR 2013-1A-O	UAL4036436	Yes	Corporate	4.300	08/15/2013	02/15/2027	13.5		BBB	720,315	12/29/2022	94.86	5.71%	4.9	0.086%	0.0737
UNITED AIRLS 2016-2 CL B PASS THRU TR	UAL4556770	Yes	Corporate	3.650	11/06/2017	04/07/2027	9.4	Ba2		236,173	11/29/2022	89.00	6.60%	5.0	0.032%	0.0246
UNITED AIRLS 2016-1 CL B PASS THRU TR	UAL4556769	Yes	Corporate	3.650	11/06/2017	07/07/2027	9.7	Ba1		258,348	12/21/2022	91.25	5.87%	5.3	0.032%	0.0282
UNITED AIRLS INC 2018-1B PASS THRU TR	UAL4631858	Yes	Corporate	4.600	05/23/2018	09/01/2027	9.3	Baa3		225,729	12/14/2022	92.00	6.60%	5.4	0.031%	0.0255
UNITED AIRLS 2014-1 PASS THRU TR	UAL4110955	Yes	Corporate	4.000	04/07/2014	10/11/2027	13.5		BBB	736,647	12/30/2022	92.39	5.85%	5.5	0.090%	0.0844
UNITED AIRLS 2014-2 PASS THRU TR	UAL4149528	Yes	Corporate	3.750	08/11/2014	03/03/2028	13.6		BBB+	823,071	12/29/2022	91.53	5.66%	5.9	0.097%	0.1014
UNITED AIRLS INC 2019-2B PASS THRU TRS	UAL4880186	Yes	Corporate	3.500	09/13/2019	11/01/2029	10.1	Baa2		232,381	12/21/2022	84.66	6.29%	7.6	0.030%	0.0367
UNITED AIRLS PASS THRU TR 2016-1A	UAL4371219	Yes	Corporate	3.450	06/20/2016	01/07/2030	13.5	Baa2		324,090	12/30/2022	78.92	7.35%	7.8	0.050%	0.0523
UNITED AIRLS PASS THRU TR 2016-1AA	UAL4371220	Yes	Corporate	3.100	06/20/2016	01/07/2030	13.5	A2		728,726	12/13/2022	89.76	4.83%	7.8	0.073%	0.1176
UNITED AIRLS PASS THRU TR 2016-2AA	UAL4403825	Yes	Corporate	2.875	10/07/2016	04/07/2030	13.5	A3		636,512	12/28/2022	84.99	5.40%	8.0	0.072%	0.1060
UNITED AIRLS PASS THRU TR 2016-2AA	UAL4036436	Yes	Corporate	4.300	04/12/2018	02/15/2027	8.8	A4		416,471	12/28/2022	91.56	6.67%	4.9	0.058%	0.0426
UNITED AIRLS INC 2018-1AA PASS THRU TR	UAL4594839		Corporate	3.500	02/14/2018	09/01/2031	13.5	A2		677,175	12/22/2022	87.23	5.36%	9.4	0.076%	0.1328
UNITED AIRLS INC 2019-1AA PASS THRU TR	UAL4792620	Yes	Corporate	4.150	02/11/2019	02/25/2033	14.0	A2		716,625	12/21/2022	88.11	5.71%	10.9	0.085%	0.1629
UNITED AIRLS INC 2019-2AA PASS THRU TRS	UAL4880184	Yes	Corporate	2.700	09/13/2019	11/01/2033	14.1	A2		702,146	12/29/2022	80.80	5.02%	11.6	0.073%	0.1693
AIR LEASE CORP	AL4643969	Yes	Corporate Bond	3.875	06/18/2018	07/03/2023	5.0		BBB	500,000	12/30/2022	99.57	4.74%	1.25	0.049%	0.0130
AIR LEASE CORP	AL4392330	Yes	Corporate Bond	3.000	08/15/2016	09/15/2023	7.1		BBB	750,000	12/30/2022	97.88	6.10%	1.50	0.095%	0.0234
AIR LEASE CORP MED TERM NTS BOOK ENTRY	AL4788606	Yes	Corporate Bond	4.250	01/23/2019	02/01/2024	5.0		BBB	700,000	12/29/2022	98.68	5.51%	1.83	0.080%	0.0267
AIR LEASE CORP	AL4162877	Yes	Corporate Bond	4.250	09/16/2014	09/15/2024	10.0		BBB	500,000	12/30/2022	97.94	5.53%	2.50	0.058%	0.0260
AIR LEASE CORP	AL4585493	Yes	Corporate Bond	3.25	01/16/2018	03/01/2025	7.1		BBB	700,000	12/30/2022	94.98	5.74%	2.92	0.084%	0.0425
AIR LEASE CORP MED TERM NTS BOOK ENTRY	AL4835627	Yes	Corporate Bond	3.75	05/23/2019	06/01/2026	7.0		BBB	750,000	12/28/2022	93.81	5.77%	4.17	0.090%	0.0651
AIR LEASE CORP	AL4462625	Yes	Corporate Bond	3.625	03/08/2017	04/01/2027	10.1		BBB	500,000	12/30/2022	90.89	6.09%	5.00	0.063%	0.0521
AIR LEASE CORP	AL4565307	Yes	Corporate Bond	3.625	11/20/2017	12/01/2027	10.0		BBB	500,000	12/30/2022	90.58	5.86%	5.67	0.061%	0.0590
AIR LEASE CORP	AL4687217	Yes	Corporate Bond	4.625	09/17/2018	10/01/2028	10.0		BBB	500,000	12/29/2022	94.24	5.82%	6.50	0.061%	0.0677
AIR LEASE CORP MED TERM NTS BOOK ENTRY	AL4882363	Yes	Corporate Bond	3.250	09/16/2019	10/01/2029	10.0		BBB	500,000	12/29/2022	85.48	5.88%	7.50	0.061%	0.0781
AIR LEASE CORP MED TERM NTS BOOK ENTRY	AL4933622	Yes	Corporate Bond	3.000	01/14/2020	02/01/2030	10.0		BBB	650,000	12/28/2022	83.44	5.89%	7.83	0.080%	0.1060
AIR LEASE CORP MED TERM NTS BOOK ENTRY	AL5080840	Yes	Corporate Bond	3.125	11/24/2020	12/01/2030	10.0		BBB	750,000	12/27/2022	83.07	5.82%	8.67	0.091%	0.1353
AIRCASTLE LTD	MARUF4346494	Yes	Corporate Bond	5.000	03/27/2016	04/01/2023	7.0	Baa3	BBB-	500,000	12/28/2022	99.81	5.68%	1.00	0.059%	0.0104
AIRCASTLE LTD	MARUF4702879	Yes	Corporate Bond	4.400	09/25/2018	09/25/2023	5.0	Baa3	BBB-	650,000	12/29/2022	99.42	5.20%	1.50	0.070%	0.0203
AIRCASTLE LTD	MARUF4463963	Yes	Corporate Bond	4.125	03/20/2017	05/01/2024	7.1	Baa3	BBB-	500,000	12/29/2022	97.10	6.41%	2.08	0.067%	0.0217
AIRCASTLE LTD	MARUF4845256	Yes	Corporate Bond	4.250	06/13/2019	06/15/2026	7.0	Baa3	BBB-	650,000	12/29/2022	94.39	6.07%	4.25	0.082%	0.0575
AVOLON HLDGS FDG LTD	AVOL4686316	Yes	Corporate Bond	5.125	09/17/2018	10/01/2023	5.0	Baa2		1,000,000	12/15/2022	98.90	6.56%	1.50	0.136%	0.0312
AVOLON HLDGS FDG LTD	AVOL4821312	Yes	Corporate Bond	3.950	04/16/2019	07/01/2024	5.2	Baa2		1,000,000	12/29/2022	96.13	6.69%	2.25	0.139%	0.0468
AVOLON HLDGS FDG LTD	AVOL4821313	Yes	Corporate Bond	4.375	04/16/2019	05/01/2026	7.0	Baa2		750,000	12/28/2022	91.97	7.11%	4.08	0.111%	0.0638
AERCAP IRELAND CAP DESIGNATED ACTIVITY C	AER4641553	Yes	Corporate Bond	4.125	06/12/2018	07/03/2023	5.1	Baa2		600,000	12/21/2022	99.44	5.20%	1.25	0.065%	0.0156
AERCAP IRELAND CAP DESIGNATED ACTIVITY C	AER5005613	Yes	Corporate Bond	4.500	07/02/2020	09/15/2023	3.2	Baa2		1,250,000	12/30/2022	99.18	5.69%	1.50	0.148%	0.0390
AERCAP IRELAND CAP DESIGNATED ACTIVITY C	AER4786976	Yes	Corporate Bond	4.875	01/16/2019	01/16/2024	5.0	Baa2		900,000	12/29/2022	99.09	5.78%	1.83	0.108%	0.0344
AERCAP IRELAND CAP DESIGNATED ACTIVITY C	AER5050850	Yes	Corporate Bond	3.150	09/25/2020	02/15/2024	3.4	Baa2		900,000	12/28/2022	97.12	5.81%	1.92	0.109%	0.0359
AERCAP IRELAND CAP DESIGNATED ACTIVITY C	AER4869969	Yes	Corporate Bond	2.875	08/14/2019	08/14/2024	5.0	Baa2		750,000	12/28/2022	94.85	6.25%	2.33	0.098%	0.0364
AERCAP IRELAND CAP DESIGNATED ACTIVI	AER4566810	Yes	Corporate Bond	3.500	11/21/2017	01/15/2025	7.2	Baa2		800,000	12/30/2022	95.59	5.82%	2.83	0.097%	0.0472
AERCAP IRELAND CAP DESIGNATED ACTIVITY C	AER4997733	Yes	Corporate Bond	6.500	06/08/2020	07/15/2025	5.1	Baa2		1,250,000	12/29/2022	101.64	5.80%	3.33	0.151%	0.0868
AERCAP IRELAND CAP DESIGNATED ACTIVITY C	AER4667191	Yes	Corporate Bond	4.450	08/21/2018	10/01/2025	7.1	Baa2		600,000	12/27/2022	96.59	5.80%	3.50	0.072%	0.0437
AERCAP IRELAND CAP DESIGNATED ACTIVITY C	AER4814500	Yes	Corporate Bond	4.450	04/03/2019	04/03/2026	7.0	Baa2		500,000	12/30/2022	95.63	5.94%	4.00	0.062%	0.0416
AERCAP IRELAND CAP DESIGNATED ACTIVI	AER4519766	Yes	Corporate Bond	3.650	07/21/2017	07/21/2027	10.0	Baa2		1,000,000	12/29/2022	90.78	5.99%	5.33	0.125%	0.1111
AERCAP IRELAND CAP DESIGNATED ACTIVITY C	AER5050847	Yes	Corporate Bond	4.625	09/25/2020	10/15/2027	7.1	Baa2		600,000	12/29/2022	93.34	6.25%	5.58	0.078%	0.0698
AERCAP IRELAND CAP DESIGNATED ACTIVITY C	AER4587101	Yes	Corporate Bond	3.875	01/23/2018	01/23/2028	10.0	Baa2		550,000	12/29/2022	90.37	6.11%	5.83	0.070%	0.0668
SMBC AVIATION CAP FIN DAC	SMVF4659353	Yes	Corporate Bond	4.125	07/30/2018	07/15/2023	5.0			500,000	12/30/2022	98.98	6.06%	1.33	0.063%	0.0139
SMBC AVIATION CAP FIN DAC	SMVF4819493	Yes	Corporate Bond	3.550	04/15/2019	04/15/2024	5.0			500,000	12/28/2022	96.86	6.10%	2.08	0.063%	0.0217
BOC AVIATION PTE LTD GLOBAL MEDIUM TERM	CHCJF4355589		Corporate Bond	3.875	04/27/2016	04/27/2026	10.0			750,000	12/29/2022	95.28	5.44%	4.08	0.085%	0.0638
BOC AVIATION PTE LTD GLOBAL MEDIUM TERM	CHCJF4880132		Corporate Bond	3.000	09/11/2019	09/11/2029	10.0			500,000	02/28/2023	88.68	5.06%	7.42	0.053%	0.0772
BOC AVIATION PTE LTD GLOBAL MEDIUM TERM	CHCJF5042641	Yes	Corporate Bond	2.625	09/17/2020	09/17/2030	10.0			750,000	12/12/2022	84.81	5.01%	8.50	0.078%	0.1327
						Average	**10.0**			**48,026,379**		**Average**	**6.27%**	**5.5**	**6.195%**	**5.1558**
						St. Dev	3.3					*Avg Term +/-*	*6.42%*			
						Avg -1std	6.7									
						Avg +1std	13.4									



Summary of Bloomberg Bond Yields by Rating

2024 S&P Monthly Bond Yields

	October 2024			November			December				Q4
Rating	20Y	25Y	30Y	20Y	25Y	30Y	20Y	25Y	30Y	Average	Average
AA	5.22	5.18	5.19	5.06	5.05	5.06	5.45	5.46	5.47	5.46%	5.24%
AA-	5.29	5.26	5.27	5.15	5.13	5.14	5.54	5.54	5.55	5.54%	5.32%
A+	5.37	5.33	5.34	5.23	5.20	5.21	5.62	5.59	5.61	5.61%	5.39%
A	5.44	5.38	5.39	5.29	5.24	5.26	5.68	5.64	5.66	5.66%	5.44%
A-	5.54	5.47	5.47	5.37	5.32	5.32	5.77	5.72	5.73	5.74%	5.52%
BBB+	5.68	5.60	5.62	5.51	5.44	5.47	5.88	5.83	5.85	5.85%	5.65%
BBB	5.86	5.76	5.78	5.66	5.58	5.61	6.05	5.97	6.00	6.01%	5.81%
BBB-	6.22	6.14	6.16	6.06	5.97	6.00	6.40	6.34	6.37	6.37%	6.18%
BB+	6.79	6.71	6.72	6.54	6.45	6.46	6.93	6.83	6.85	6.87%	6.70%
BB	7.09	7.01	7.03	6.94	6.85	6.86	7.28	7.18	7.19	7.22%	7.05%
BB-	7.36	7.22	7.23	7.24	7.13	7.14	7.53	7.44	7.44	7.47%	7.30%
B+	7.43	7.33	7.34	7.26	7.16	7.16	7.60	7.50	7.50	7.53%	7.36%
B	7.70	7.60	7.60	7.41	7.31	7.32	8.08	7.98	7.99	8.02%	7.67%
B-	7.72	7.62	7.62	7.51	7.41	7.41	8.10	8.00	8.01	8.04%	7.71%