

## COST OF CAPITAL STUDY

**YIELD CAPITALIZATION**  
**2022 ASSESSMENT YEAR**

APPENDIX C

### PASSENGER AIRLINES

<b>EQUITY RATE</b>		<b>15.00%</b>		
<b>CAPITAL ASSET PRICING MODEL</b>			PAGE	
CAPM Ex Ante	7.69%		6	
<b>DIVIDEND GROWTH MODELS</b>				
Value Line, based on Dividends Growth	NMF		7	
Value Line, based on Residual Income Method	17.50%		7a	
Value Line, based on Residual Income Method Multistage	17.25%			
Value Line, based on Earnings Growth	NMF		8	
Value Line, based on Return on Equity	10.50%		9	
	<b>RANGE</b>	7.69% - 17.5%		
<b>DEBT RATE</b>		<b>6.25%</b>	10	
<b>OPERATING LEASE DEBT RATE</b>		<b>4.30%</b>	10	
<b>MARKET CAPITAL STRUCTURE</b>				
		Tax Shield		
Equity	45%	x 15.00%	= 6.75%	3
Operating Leases	15%	x 4.30%	x 76.00% = 0.49%	3
Debt	40%	x 6.25%	x 76.00% = 1.90%	3
Marginal Tax Rate	24%			
<b>WEIGHTED AVERAGE COST OF CAPITAL</b>		<b>9.14%</b>		

# SUPPORT FOR GUIDELINE COMPANIES

WASHINGTON STATE DEPARTMENT OF REVENUE

2022 ASSESSMENT YEAR

PASSENGER AIRLINES

Capital Structure at Book Value

Company	Ticker	Beta	P/E Ratio	Div'd Yield	Common Stock	%	Preferr ed Stock	%	Long Term Debt	%	Total Debt & Equity	%
Alaska Air Group, Inc.	ALK	1.50	12.3	0.38%	3,801,098,034	63.6%	-	0.0%	2,173,000,000	36.4%	5,974,098,034	100.0%
Allegiant Travel Co	ALGT	1.30	18.7	0.00%	1,221,646,500	43.1%	-	0.0%	1,612,486,000	56.9%	2,834,132,500	100.0%
American Airlines Group	AAL	1.60	(12.0)	0.00%	NMF		-		35,571,000,000			
Delta Air Lines, Inc.	DAL	1.55	20.6	0.00%	1,528,800,000	5.7%	-	0.0%	25,138,000,000	94.3%	26,666,800,000	100.0%
Hawaiian Holdings, Inc.	HA	1.70	(9.2)	0.00%	624,795,684	26.8%	-	0.0%	1,704,298,000	73.2%	2,329,093,684	100.0%
JetBlue Airways Corp.	JBLU	1.65	28.5	0.00%	3,831,900,000	51.2%	-	0.0%	3,651,000,000	48.8%	7,482,900,000	100.0%
Southwest Airlines Co.	LUV	1.05	19.0	0.00%	10,419,200,000	50.4%	-	0.0%	10,274,000,000	49.6%	20,693,200,000	100.0%
Spirit Airlines	SAVE	1.85	(87.4)	0.00%	2,189,784,676	42.4%	-	0.0%	2,975,823,000	57.6%	5,165,607,676	100.0%
United Continental Holding, Inc	UAL	1.60	(48.6)	0.00%	5,083,660,000	14.3%	-	0.0%	30,361,000,000	85.7%	35,444,660,000	100.0%
<b>Mean</b>		<b>1.53</b>	<b>(6.46)</b>	<b>0.04%</b>	<b>3,587,610,612</b>	<b>37.2%</b>		<b>0.0%</b>	<b>12,606,734,111</b>	<b>62.8%</b>		
<b>Weighted Mean</b>					<b>28,700,884,895</b>	<b>26.9%</b>		<b>0.0%</b>	<b>113,460,607,000</b>	<b>106.4%</b>	<b>106,590,491,895</b>	
<b>Harmonic Mean</b>		<b>1.50</b>			<b>1,840,519,589.36</b>	<b>20.9%</b>		<b>0.0%</b>	<b>3,636,058,249.14</b>	<b>57.5%</b>	<b>5,751,893,022.52</b>	
<b>Median</b>		<b>1.60</b>	<b>12.26</b>	<b>-</b>	<b>2995441355</b>	<b>42.7%</b>		<b>0.0%</b>	<b>3,651,000,000.00</b>	<b>57.3%</b>		
<b>Max</b>		<b>1.85</b>	<b>28.5</b>	<b>0.38%</b>	<b>10419200000</b>	<b>63.6%</b>		<b>0.0%</b>	<b>35571000000</b>	<b>94.3%</b>		
<b>Min</b>		<b>1.05</b>	<b>-87.4</b>	<b>0.00%</b>	<b>624795684</b>	<b>5.7%</b>		<b>0.0%</b>	<b>1612486000</b>	<b>36.4%</b>		
<b>Say</b>		<b>1.50</b>				<b>35%</b>		<b>0.0%</b>		<b>65%</b>		<b>100%</b>

**SUPPORT FOR CAPITAL STRUCTURE  
MARKET VALUE**

WASHINGTON STATE DEPARTMENT OF REVENUE  
2022 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	52.10	125,905,864	6,559,695,514	60.5%	-	0.0%	2,369,617,621	21.8%	1,919,000,000	17.7%	10,848,313,136	100%
Allegiant Travel Co	ALGT	187.04	18,045,000	3,375,136,800	70.2%	-	0.0%	173,373,512	3.6%	1,261,170,000	26.2%	4,809,680,312	100%
American Airlines Group	AAL	17.96	647,727,595	11,633,187,606	18.7%	-	0.0%	12,172,391,836	19.5%	38,567,000,000	61.8%	62,372,579,442	100%
Delta Air Lines, Inc.	DAL	39.08	637,000,000	24,893,960,000	44.4%	-	0.0%	4,278,760,112	7.6%	26,900,000,000	48.0%	56,072,720,112	100%
Hawaiian Holdings, Inc.	HA	18.37	51,212,761	940,778,420	25.3%	-	0.0%	967,422,596	26.0%	1,808,530,000	48.7%	3,716,731,015	100%
JetBlue Airways Corp.	JBLU	14.24	318,000,000	4,528,320,000	48.0%	-	0.0%	914,225,710	9.7%	3,982,000,000	42.3%	9,424,545,710	100%
Southwest Airlines Co.	LUV	42.84	592,000,000	25,361,280,000	65.4%	-	0.0%	1,613,760,218	4.2%	11,796,000,000	30.4%	38,771,040,218	100%
Spirit Airlines	SAVE	21.85	108,405,182	2,368,653,227	30.8%	-	0.0%	2,053,884,006	26.7%	3,275,800,000	42.6%	7,698,337,232	100%
United Continental Holding, Inc	UAL	43.78	323,800,000	14,175,964,000	27.9%	-	0.0%	1,995,616,746	3.9%	34,550,000,000	68.1%	50,721,580,746	100%
			<b>Mean</b>		<b>43.5%</b>		<b>0.0%</b>		<b>13.7%</b>		<b>42.9%</b>		
			<b>Weighted Mean</b>	<b>93,836,975,567</b>	<b>38.4%</b>	<b>-</b>	<b>0.0%</b>	<b>26,539,052,357</b>	<b>10.86%</b>	<b>124,059,500,000</b>	<b>50.8%</b>	<b>244,435,527,924</b>	
			<b>Median</b>		<b>44.4%</b>		<b>0.0%</b>		<b>9.70%</b>		<b>42.6%</b>		
			<b>Harmonic Mean</b>		<b>35.9%</b>		<b>0.0%</b>		<b>7.6%</b>		<b>36.4%</b>		
			<b>Max</b>		<b>70.2%</b>		<b>0.0%</b>		<b>26.7%</b>		<b>68.1%</b>		
			<b>Min</b>		<b>18.7%</b>		<b>0.0%</b>		<b>3.6%</b>		<b>17.7%</b>		
			<b>Std Dev</b>		<b>18.9%</b>		<b>0.0%</b>		<b>9.8%</b>		<b>16.3%</b>		
			<b>Coefficient of Variation</b>		<b>0.43</b>		<b>0.0%</b>		<b>0.71</b>		<b>0.38</b>		
			<b>Target</b>		<b>45%</b>		<b>0%</b>		<b>15%</b>		<b>40%</b>		<b>100%</b>

Source:  
Stock Price: Yahoo  
Market Value Debt: 10-k Reported Fair Value

# SUPPORT FOR MARKET MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE

2022 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	52.10	49.05	1.1	1.10	47.4	(2.03)		Nil		30.19	1.7
Allegiant Travel Co	ALGT	187.04	94.35	2.0	11.95	15.7	2.04	91.7	Nil		67.70	2.8
American Airlines Group	AAL	17.96	46.13	0.4	(5.21)		(8.38)		Nil		(11.35)	
Delta Air Lines, Inc.	DAL	39.08	46.95	0.8	(0.95)		(4.08)		Nil		2.40	16.3
Hawaiian Holdings, Inc.	HA	18.37	31.10	0.6	(4.80)		(7.55)		Nil		12.20	1.5
JetBlue Airways Corp.	JBLU	14.24	18.85	0.8	(0.80)		(2.51)		NIL		12.05	1.2
Southwest Airlines Co.	LUV	42.84	26.65	1.6	-		(2.15)		Nil		17.60	2.4
Spirit Airlines	SAVE	21.85	29.65	0.7	(1.15)		(4.26)		NIL		20.20	1.1
United Continental Holding, Inc	UAL	43.78	77.00	0.6	(6.25)		(13.94)		NIL		15.70	2.8
		<b>Mean</b>		<b>0.9</b>		<b>31.5</b>		<b>91.7</b>				<b>3.7</b>
		<b>Median</b>		<b>0.8</b>		<b>31.5</b>		<b>91.7</b>				<b>2.1</b>
		<b>Harmonic Mean</b>		<b>0.8</b>		<b>23.5</b>		<b>91.7</b>				<b>1.9</b>
		<b>Max</b>		<b>2.0</b>		<b>47.4</b>		<b>91.7</b>		-		<b>16.3</b>
		<b>Min</b>		<b>0.4</b>		<b>15.7</b>		<b>91.7</b>		-		<b>1.1</b>
		<b>Std Dev</b>		<b>0.5</b>		<b>22.4</b>						<b>5.1</b>
		<b>Coefficient of Variation</b>		<b>0.55</b>		<b>0.71</b>						<b>1.38</b>
		<b>Say</b>		<b>1.00</b>		<b>NMF</b>		<b>NMF</b>		<b>NMF</b>		<b>3.00</b>

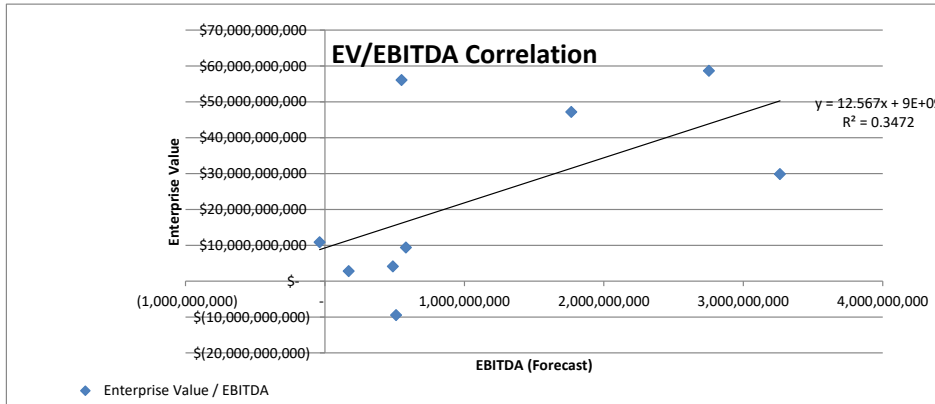
# ENTERPRISE VALUE MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE

2022 ASSESSMENT YEAR

PASSENGER AIRLINES

Guideline Companies	Ticker	EV+OL	EBITDA + OL	EV / EBITDA	Annual Change Rate	EBITDA	EV / EBITDA	Revenue	EV / Sales	CF	Debt Service	EV / CF
			historic	historic	(Growth)	forecast	forecast	forecast				
Alaska Air Group, Inc.	ALK	\$ 10,848,313,136	(37,000,000)	-293.20	2.6%	(37,955,438)	0.00	8,502,650,000	1.28	138,496,450	119,937,500	41.98
Allegiant Travel Co	ALGT	\$ 4,134,314,312	465,456,000	8.88	4.7%	487,453,112	8.48	2,124,725,000	1.95	215,637,750	78,823,125	14.04
American Airlines Group	AAL	\$ 58,666,579,442	2,701,000,000	21.72	2.0%	2,754,244,665	21.30	42,306,000,000	1.39	(3,374,660,770)	2,410,437,500	(60.84)
Delta Air Lines, Inc.	DAL	\$ 56,072,720,112	542,000,000	103.46	1.5%	550,047,288	101.94	42,997,500,000	1.30	(605,150,000)	1,681,250,000	52.11
Hawaiian Holdings, Inc.	HA	\$ 2,813,836,015	165,211,000	17.03	3.2%	170,435,019	16.51	2,561,000,000	1.10	(245,821,253)	113,033,125	(21.19)
JetBlue Airways Corp.	JBLU	\$ 9,424,545,710	559,000,000	16.86	3.8%	580,480,393	16.24	8,092,500,000	1.16	(254,400,000)	248,875,000	(1,705.80)
Southwest Airlines Co.	LUV	\$ 29,899,040,218	3,198,000,000	9.35	2.0%	3,263,335,294	9.16	21,600,000,000	1.38	-	737,250,000	40.55
Spirit Airlines	SAVE	\$ (9,450,970,768)	486,938,000	-19.41	4.8%	510,171,715	0.00	4,702,500,000	-2.01	(124,665,959)	204,737,500	(118.03)
United Continental Holding, Inc	UAL	\$ 47,191,580,746	1,693,000,000	27.87	4.4%	1,767,152,267	26.70	24,096,000,000	1.96	(2,023,750,000)	2,159,375,000	347.96
	<b>Mean</b>			<b>(11.94)</b>	<b>3.22%</b>		<b>22.26</b>		<b>1.06</b>			<b>(156.58)</b>
	<b>Median</b>			<b>16.86</b>	<b>3.16%</b>		<b>16.24</b>		<b>1.30</b>			<b>14.04</b>
	<b>Harmonic Mean</b>				<b>2.74%</b>							
	<b>Max</b>			<b>103.46</b>	<b>4.77%</b>		<b>101.94</b>		<b>1.96</b>			<b>347.96</b>
	<b>Min</b>			<b>(293.20)</b>	<b>1.48%</b>		<b>-</b>		<b>(2.01)</b>			<b>(1,705.80)</b>
	<b>Std Dev</b>			<b>110.54</b>	<b>1.3%</b>		<b>31.21</b>		<b>1.19</b>			<b>595.25</b>
	<b>Coefficient of Variation</b>			<b>(9.26)</b>	<b>0.39</b>		<b>1.40</b>		<b>1.13</b>			<b>(3.80)</b>
	<b>Say</b>			<b>17.00</b>	<b>3.00%</b>		<b>NMF</b>		<b>1.30</b>			<b>NMF</b>



## Forecast EV/EBITDA By Rank

Guideline Companies	EV/EBITDA forecast	
Spirit Airlines	0.00	<b>6.78 Low Average</b>
Alaska Air Group, Inc.	0.00	
Allegiant Travel Co	8.48	
Southwest Airlines Co.	9.16	
JetBlue Airways Corp.	16.24	<b>36.54 High Average</b>
Hawaiian Holdings, Inc.	16.51	
American Airlines Group	21.30	
United Continental Holding, Inc	26.70	
Delta Air Lines, Inc.	101.94	<b>21.3 High Median</b>
		<b>20.00 Say</b>

# SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT CAPITAL ASSET PRICING MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE  
2022 ASSESSMENT YEAR  
PASSENGER AIRLINES

$$\text{Ex Ante} \\ \text{Ke} = \text{Rf} + \beta (\text{Rp})$$

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**Ke = Cost of Equity** **7.69%**

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Rm =	rate of return	5.76%
Rf =	risk free rate	1.90%
Rp =	risk premium	3.86%
B =	Beta	1.50

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**Rp = Risk Premium** **3.86%**

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to above

**Shannon Pratt and Roger Grabowski** 3.50% - 6.00%  
Cost of Capital, Applications and Examples, Fifth Edition, 2014

**Dr. Aswath Damodaran** 4.24% chart page 14  
<http://pages.stern.nyu.edu/~adamodar/> **3.86%** adjusted for Rf  
2021 Implied Premium

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**Rf = Risk Free Rate** **1.90%**

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to above

**Value Line Investment Survey, Selected Yields January 7, 2022, page 2089**  
as of 12-27-21

US Treasury Securities year end data		
	5 year	1.26%
	10 year	1.48%
	30 year	1.88%
	30 year Zero	1.90%

**Federal Reserve Statistical Release (<http://www.federalreserve.gov/Releases/H15/Current/>)**  
as of 12-31-21

Treasury Constant Maturities		
	5 year	1.26%
	10 year	1.52%
	20 year	1.94%
	30 year	1.90%
	20 year TIPS	-0.63%
	30 year TIPS	-0.44%

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**Inflation** **2.34%**

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**Federal Reserve Statistics Release (<http://www.federalreserve.gov/Releases/H15/Current/>)**  
As of 12-31-21

Inflation Indication from Treasury Inflation-Protected Securities		
	20 year	2.57%
	30 year	2.34%

**Federal Reserve Bank of Philadelphia**  
The Livingston Survey, December 17, 2021, page 8  
Inflation median (measured by the CPI) over next 10 years 2.40%  
<https://www.philadelphiafed.org/research-and-data/real-time-center/livingston-survey>

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**Gross Domestic Product (GDP)** **4.14%**

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**Federal Reserve Projected Long Run Real GDP Growth** 1.80%

Median Projection Value From Dec 15, 2021 Report, page 2  
<https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20211215.pdf>

**Congressional Budget Office Real GDP Economic Projections**

The Budget and Economic Outlook 2021-2031	2021-2025	Table 2.3, pg 15
Average Percentage Change From Year To Year	2026-2031	1.90%
<a href="https://www.cbo.gov/system/files/2021-02/56970-Outlook.pdf">https://www.cbo.gov/system/files/2021-02/56970-Outlook.pdf</a>		1.70%

**Federal Reserve Bank of Philadelphia**

The Livingston Survey, December 17, 2021, page 8 2.10%  
Median Annual Average Real GDP Growth Rate for Next Ten Years  
<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

2022 ASSESSMENT YEAR

PASSENGER AIRLINES

**Based on Dividend Growth**

$$K_e = (D_1 + BB_1 / P_0) + G_D$$

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	Ke
Alaska Air Group, Inc.	ALK	52.10	4.25	0.20	4.05	0.38%	7.77%	8.16%	14.87%	23.03%
Allegiant Travel Co	ALGT	187.04		0.00						
American Airlines Group	AAL	17.96		0.00					0.00%	
Delta Air Lines, Inc.	DAL	39.08	1.90	0.00	1.90		4.86%			
Hawaiian Holdings, Inc.	HA	18.37		0.00						
JetBlue Airways Corp.	JBLU	14.24	0.50	0.00	0.50		3.51%		0.00%	
Southwest Airlines Co.	LUV	42.84	2.25	0.00	2.25		5.25%			
Spirit Airlines	SAVE	21.85		0.00					0.00%	
United Continental Holding, Inc	UAL	43.78		0.00				wa	0.00%	
								<b>Mean</b>	<b>8.16%</b>	<b>23.03%</b>
								<b>Median</b>	<b>8.16%</b>	<b>23.03%</b>
								<b>Harmonic Mean</b>	<b>8.16%</b>	<b>23.03%</b>
								<b>Max</b>	<b>8.16%</b>	<b>23.03%</b>
								<b>Min</b>	<b>8.16%</b>	<b>23.03%</b>
								<b>Std Dev</b>		
								<b>Coefficient of Variation</b>		

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NMF

# SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT RESIDUAL INCOME MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2022 ASSESSMENT YEAR

PASSENGER AIRLINES

$$K_e = (BVPS * (ROE - g)) / P_o + g$$

*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)	Ke
Alaska Air Group, Inc.	ALK	52.10	0.15	30.19	18.50%	2.68%	11.85%
Allegiant Travel Co	ALGT	187.04	0.22	67.70	22.00%	4.84%	11.05%
American Airlines Group	AAL	17.96	NMF	(11.35)	NMF		
Delta Air Lines, Inc.	DAL	39.08	0.35	2.40	45.50%	15.93%	17.74%
Hawaiian Holdings, Inc.	HA	18.37	0.29	12.20	29.00%	8.41%	22.08%
JetBlue Airways Corp.	JBLU	14.24	0.19	12.05	18.50%	3.42%	16.18%
Southwest Airlines Co.	LUV	42.84	0.22	17.60	21.50%	4.62%	11.56%
Spirit Airlines	SAVE	21.85	0.22	20.20	21.50%	4.62%	20.23%
United Continental Holding, Inc	UAL	43.78	0.55	15.70	55.00%	30.25%	39.13%
						<b>Mean</b>	<b>18.73%</b>
						<b>Median</b>	<b>16.96%</b>
						<b>Harmonic Mean</b>	<b>16.00%</b>
						<b>Max</b>	<b>39.13%</b>
						<b>Min</b>	<b>11.05%</b>
						<b>Std Dev</b>	<b>9.2%</b>
						<b>Coefficient of Variation</b>	<b>0.49</b>
						<b>Say</b>	<b>17.50%</b>

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# SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

## DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2022 ASSESSMENT YEAR

PASSENGER AIRLINES

### Based on Earnings Growth

$$K_e = (D_1 + BB_1 / P_0) + G_D$$

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	Ke
Alaska Air Group, Inc.	ALK	52.10	4.25	0.20	4.05	0.38%	7.77%	8.16%	14.87%	23.03%
Allegiant Travel Co	ALGT	187.04		0.00						
American Airlines Group	AAL	17.96		0.00						
Delta Air Lines, Inc.	DAL	39.08	1.90	0.00	1.90		4.86%			
Hawaiian Holdings, Inc.	HA	18.37		0.00						
JetBlue Airways Corp.	JBLU	14.24	0.50	0.00	0.50		3.51%		0.00%	
Southwest Airlines Co.	LUV	42.84	2.25	0.00	2.25		5.25%			
Spirit Airlines	SAVE	21.85		0.00					0.00%	
United Continental Holding, Inc	UAL	43.78		0.00					0.00%	
								<b>Mean</b>	<b>8.16%</b>	<b>23.03%</b>
								<b>Median</b>	<b>8.16%</b>	<b>23.03%</b>
								<b>Harmonic Mean</b>	<b>8.16%</b>	<b>23.03%</b>
								<b>Max</b>	<b>8.16%</b>	<b>23.03%</b>
								<b>Min</b>	<b>8.16%</b>	<b>23.03%</b>
								<b>Std Dev</b>		
								<b>Coefficient of Variation</b>		

to page 1

NMF

# SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2022 ASSESSMENT YEAR

PASSENGER AIRLINES

## Based on Return on Equity

$$K_e = (D_1 / P_o) + G$$

**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	Ke Dividends	Ke Earnings
Alaska Air Group, Inc.	ALK	52.10	0.20	4.25	0.38%	95.3%	8.16%	7.77%	8.16%	15.93%
Allegiant Travel Co	ALGT	187.04	0.00	10.00		100.0%	5.35%	5.35%		10.69%
American Airlines Group	AAL	17.96	0.00	-1.50		100.0%	-8.35%	-8.35%		
Delta Air Lines, Inc.	DAL	39.08	0.00	1.90		100.0%	4.86%	4.86%		9.72%
Hawaiian Holdings, Inc.	HA	18.37	0.00	-2.00		100.0%	-10.89%	-10.89%		
JetBlue Airways Corp.	JBLU	14.24	0.00	0.50		100.0%	3.51%	3.51%		7.02%
Southwest Airlines Co.	LUV	42.84	0.00	2.25		100.0%	5.25%	5.25%		10.50%
Spirit Airlines	SAVE	21.85	0.00	-0.25		100.0%	-1.14%	-1.14%		
United Continental Holding, Inc	UAL	43.78	0.00	-0.90		100.0%	-2.06%	-2.06%		
								<b>Mean</b>	<b>8.16%</b>	<b>10.77%</b>
								<b>Median</b>	<b>8.16%</b>	<b>10.50%</b>
								<b>Harmonic Mean</b>	<b>8.16%</b>	<b>10.07%</b>
								<b>Max</b>	<b>8.16%</b>	<b>15.93%</b>
								<b>Min</b>	<b>8.16%</b>	<b>7.02%</b>
								<b>Std Dev</b>		<b>3.2%</b>
								<b>Coefficient of Variation</b>		<b>0.30</b>

**10.50%**

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# SUPPORT FOR DEBT RATING AND DEBT YIELD RATE

WASHINGTON STATE DEPARTMENT OF REVENUE

2022 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	BB
Hawaiian Holdings, Inc.	HA	Caa1	CCC+
JetBlue Airways Corp.	JBLU	B1	B+
Southwest Airlines Co.	LUV	Baa2	BBB
Spirit Airlines	SAVE	B2	B
United Continental Holding, Inc	UAL	B1	B+
<b>Overall Average Debt Rating</b>		<b>B1</b>	<b>B+</b>

All issues

## Bond Yields for Guideline Companies, All Ratings

**5.44%**

## Mergent's Bond Record January 2022, page 90

Corporate	Aaa	Aa	A	Baa
October	2.68%	2.86%	3.02%	3.35%
November	2.62%	2.77%	2.95%	3.28%
December	2.71%	2.82%	3.04%	3.37%
<b>4th Qtr Average</b>	<b>2.67%</b>	<b>2.82%</b>	<b>3.00%</b>	<b>3.33%</b>
Public Utilities		Aa	A	Baa
October		2.99%	3.09%	3.32%
November		2.91%	3.02%	3.25%
December		3.01%	3.13%	3.36%
<b>4th Qtr Average</b>		<b>2.97%</b>	<b>3.08%</b>	<b>3.31%</b>
Industrials	Aaa	Aa	A	Baa
October	2.68%	2.73%	2.96%	3.38%
November	2.62%	2.63%	2.88%	3.30%
December	2.71%	2.62%	2.95%	3.37%
<b>4th Qtr Average</b>	<b>2.67%</b>	<b>2.66%</b>	<b>2.93%</b>	<b>3.35%</b>

	BB-	B+	B
<b>Bloomberg S&amp;P Corporate Bond Yields</b>	4.70%	4.70%	6.14%
<b>Capital IQ Corporate Bond Yield</b>	6.24%	7.64%	9.05%

## Debt Yield Rate

**6.25%**

## Operating Lease Debt Rate

See Lease Bond Analysis 16 Tab

**4.30%**

## Cost of Secured Debt (Possessory Lease)

Based on 4th Quarter Aa rate

**2.80%**

to page 1

Add'l Bond Data Pg

# Passenger Airlines Bond Analysis

12/31/2021

2022.5

Company	Type/Symbol	Call	coupon	maturity	Price/Sal	Issued / Book	current yield	weighted A Rating	Moody's S&P	Mkt Val	Mkt : Book	Embedded Rate	Debt Service	Industry	Company	
<b>FINRA</b>	<b>FINRA</b>															
American Airlines	AAAL495590	Y	3.750	2025	92	500,000	4.08%	7.37%	0.01%	Caa1	\$	460,000	92.00%	18,750	0.009%	0.286%
American Airlines	AAAL3687892	Y	6.250	2024	98.55	84,673	6.34%	7.31%	0.00%	Ba2	\$	83,445	98.55%	5,292	0.002%	0.048%
American Airlines	AAAL3978262	Y	4.000	2027	95.5	230,770	4.19%	5.15%	0.00%	Ba/SP	\$	220,385	95.50%	9,231	0.003%	0.092%
American Airlines	AAAL444160717	Y	3.700	2027	98.45	463,683	4.02%	5.11%	0.00%	BB+	\$	456,642	97.15%	17,156	0.005%	0.151%
American Airlines	AAAL4547142	Y	3.700	2027	94.25	220,723	3.93%	5.16%	0.00%	Ba2	\$	208,031	94.25%	8,167	0.003%	0.089%
American Airlines	AAAL4218569	Y	3.375	2028	96.9	947,778	3.48%	4.01%	0.01%	BB+	\$	918,397	96.90%	31,988	0.010%	0.295%
American Airlines	AAAL4218570	Y	3.700	2024	94.55	266,046	3.91%	7.68%	0.01%	Ba2	\$	251,546	94.55%	9,844	0.005%	0.159%
American Airlines	AAAL4442279	Y	3.650	2031	100.0	1,000,000	3.64%	3.61%	0.00%	Baa1	\$	938,099	100.00%	19,594	0.005%	0.151%
American Airlines	AAAL4442280	Y	4.000	2030	89.48	248,627	4.47%	5.77%	0.00%	Baa3	\$	222,471	89.48%	9,945	0.004%	0.111%
American Airlines	AAAL4591551	Y	3.950	2032	95.22	202,065	4.15%	4.58%	0.00%	BB+	\$	192,467	95.25%	7,982	0.002%	0.072%
American Airlines	AAAL4867589	Y	3.150	2033	97.22	578,712	3.24%	3.47%	0.01%	Ba1	\$	562,624	97.22%	18,229	0.005%	0.156%
American Airlines	AAAL4867590	Y	3.500	2033	89.74	289,358	3.90%	4.76%	0.00%	Baa3	\$	259,670	89.74%	10,128	0.003%	0.107%
American Airlines	AAAL4867591	Y	3.850	2029	90.27	228,438	4.26%	5.68%	0.00%	Ba2	\$	206,211	90.27%	8,795	0.003%	0.101%
American Airlines	AAAL4160720	Y	4.375	2024	100.37	814,338	4.36%	4.12%	0.00%	B+	\$	837,747	100.37%	3,650	0.001%	0.027%
American Airlines	AAAL4360356	Y	3.200	2029	95.3	567,360	3.36%	4.04%	0.01%	Baa1	\$	540,694	95.30%	18,156	0.006%	0.178%
American Airlines	AAAL4360357	Y	3.650	2029	93.75	261,284	3.89%	4.79%	0.00%	Baa3	\$	244,954	93.75%	9,537	0.003%	0.097%
American Airlines	AAAL4442554	Y	4.950	2026	95.1	197,777	5.21%	6.56%	0.00%	Ba2	\$	188,086	95.10%	9,790	0.003%	0.101%
American Airlines	AAAL4327176	Y	3.575	2029	99.77	431,241	3.58%	3.63%	0.00%	Baa1	\$	430,249	99.77%	15,400	0.004%	0.121%
American Airlines	AAAL4327177	Y	4.100	2029	94.67	262,218	4.33%	5.08%	0.00%	BB	\$	248,242	94.67%	10,751	0.003%	0.103%
American Airlines	AAAL4327179	Y	5.250	2025	97.1	227,758	5.41%	6.54%	0.00%	Ba2	\$	221,153	97.10%	11,957	0.004%	0.116%
American Airlines	AAAL4150076	Y	4.950	2024	100.22	256,835	4.94%	4.79%	0.00%	BB	\$	257,200	100.22%	12,703	0.003%	0.096%
American Airlines	AAAL5007014	Y	11.750	2025	120.47	2,500,000	9.75%	3.11%	0.02%	Ba3	\$	3,011,750	120.47%	293,750	0.020%	0.604%
American Airlines	AAAL4288271	Y	3.600	2029	97.43	583,226	3.69%	4.06%	0.01%	Baa1	\$	568,237	97.43%	20,996	0.006%	0.184%
American Airlines	AAAL4288272	Y	4.000	2029	92.45	239,271	4.32%	5.41%	0.00%	Baa3	\$	221,206	92.45%	9,571	0.003%	0.100%
American Airlines	AAAL4288273	Y	4.400	2025	98.75	128,726	4.46%	4.94%	0.00%	Ba2	\$	127,117	98.75%	5,664	0.002%	0.049%
American Airlines	AAAL4526208	Y	3.600	2031	95	204,469	3.79%	4.32%	0.00%	Baa3	\$	194,246	95.00%	7,361	0.002%	0.069%
American Airlines	AAAL4526209	Y	3.350	2031	97.72	441,473	3.43%	3.67%	0.00%	Baa1	\$	431,407	97.72%	14,789	0.004%	0.126%
American Airlines	AAAL4405825	Y	3.000	2030	97.99	552,654	3.06%	3.31%	0.00%	Baa1	\$	546,445	97.99%	16,730	0.005%	0.143%
American Airlines	AAAL4405827	Y	3.250	2030	89.97	256,143	3.61%	4.88%	0.00%	Baa3	\$	230,452	89.97%	8,325	0.003%	0.097%
American Airlines	AAAL4544076	Y	3.750	2027	94.25	125,052	3.98%	5.22%	0.00%	Ba2	\$	117,862	94.25%	4,689	0.002%	0.051%
American Airlines	AAAL5288053	Y	2.875	2036	94.000	757,825	3.06%	3.44%	0.01%	A-	\$	712,356	94.00%	21,787	0.007%	0.202%
<b>2 Book Val</b>		<b>200</b>		<b>sum</b>	<b>2986.72</b>	<b>\$ 12,879,334</b>	<b>Percent of book 1493.36%</b>		<b>0.14%</b>	<b>\$ 12,955,391</b>	<b>100.59%</b>	<b>5.21%</b>	<b>\$ 670,726</b>		<b>4.275%</b>	
Delta Airlines	AAAL4277694	Y	3.625	2029	102.387	224,144	3.54%	3.21%	0.00%	A2	\$	229,494	102.39%	\$ 8,125	0.002%	0.056%
Delta Airlines	AAAL4277695	Y	3.875	2029	105.2	49,809	3.68%	2.98%	0.00%	Baa1	\$	52,399	105.20%	\$ 1,930	0.002%	0.012%
Delta Airlines	AAAL4370219	Y	4.250	2027	102.75	68,212	4.15%	3.25%	0.00%	Baa2	\$	68,212	102.75%	\$ 0	0.001%	0.017%
Delta Airlines	AAAL4370219	N	7.041	2023	100.8	23,403	6.99%	5.38%	0.00%	BB	\$	23,590	100.80%	\$ 1,648	0.000%	0.010%
Delta Airlines	AAAL4622968	Y	3.800	2023	101.14	500,000	3.76%	1.49%	0.00%	Baa3	\$	505,700	101.14%	\$ 19,000	0.002%	0.058%
Delta Airlines	AAAL4622969	Y	4.375	2028	102.52	500,000	4.25%	3.78%	0.00%	Baa3	\$	514,600	102.92%	\$ 21,875	0.005%	0.147%
Delta Airlines	AAAL4900953	Y	2.900	2024	98.297	900,000	2.90%	4.02%	0.00%	Baa3	\$	884,873	98.46%	\$ 38,495	0.008%	0.281%
Delta Airlines	AAAL4900990	Y	3.750	2029	92.250	600,000	4.07%	5.18%	0.01%	Baa3	\$	553,500	92.25%	\$ 22,500	0.008%	0.242%
Delta Airlines	AAAL4962232	Y	2.000	2029	94.200	724,263	2.12%	3.00%	0.01%	A1	\$	682,256	94.20%	\$ 14,485	0.005%	0.168%
Delta Airlines	AAAL4962233	Y	2.000	2029	94.200	724,263	2.12%	3.00%	0.01%	A1	\$	682,256	94.20%	\$ 14,485	0.005%	0.168%
Delta Airlines	AAAL4962234	Y	2.500	2029	98.242	204,106	2.54%	2.80%	0.00%	A3	\$	200,518	98.24%	\$ 5,103	0.001%	0.044%
Delta Airlines	AAAL5047253	Y	4.500	2025	106.625	2,500,000	4.22%	1.77%	0.01%	Baa1	\$	2,665,625	106.63%	\$ 112,500	0.011%	0.343%
Delta Airlines	AAAL5047255	Y	4.750	2028	104.500	3,500,000	4.55%	3.83%	0.03%	Baa1	\$	3,657,500	104.50%	\$ 166,250	0.034%	1.040%
Delta Airlines	AAAL5000237	Y	7.375	2026	111.337	1,080,508	6.60%	3.74%	0.01%	Baa3	\$	1,207,327	111.74%	\$ 79,687	0.010%	0.313%
Delta Airlines	AAAL5000237	Y	7.375	2026	111.337	1,080,508	6.60%	3.74%	0.01%	Baa3	\$	1,207,327	111.74%	\$ 79,687	0.010%	0.313%
Delta Airlines	AAAL5047253	Y	4.500	2025	106.625	2,500,000	4.22%	1.77%	0.01%	Baa1	\$	2,665,625	106.63%	\$ 112,500	0.011%	0.343%
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Delta Airlines	AAAL5047255	Y	4.750	2028	104.500	3,500,000	4.55%	3.83%	0.03%	Baa1	\$	3,657,500	104.50%	\$ 166,250	0.034%	

## DATA INPUT

WASHINGTON STATE DEPARTMENT OF REVENUE

2022 ASSESSMENT YEAR

PASSENGER AIRLINES

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

				Historic Figures (2021)													
Guideline Companies		Stock Price 12/31/2020	Stock Price 12/31/2021	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)
Name	Ticker	Yahoo	Yahoo	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL
Alaska Air Group, Inc.	ALK	52.00	52.10	1.50	49.05	1.10	(2.03)	79.42	73.6%	NMF	2,173	Nil	30.19	125,905,864	NMF	0.94	6,176
Allegiant Travel Co	ALGT	189.24	187.04	1.30	94.35	11.95	2.04	155.85	70.3%	2.1%	1,613	Nil	67.70	18,045,000	NMF	1.20	1,708
American Airlines Group	AAL	15.77	17.96	1.60	46.13	(5.21)	(8.38)	73.65	75.3%	NMF	35,571	Nil	(11.35)	647,727,595	NMF	NMF	29,882
Delta Air Lines, Inc.	DAL	40.21	39.08	1.55	46.95	(0.95)	(4.08)	70.00	69.0%	NMF	25,138	Nil	2.40	637,000,000	NMF	2.27	29,899
Hawaiian Holdings, Inc.	HA	17.70	18.37	1.70	31.10	(4.80)	(7.55)	57.70	69.2%	NMF	1,900	Nil	12.20	51,212,761	NMF	NMF	1,597
JetBlue Airways Corp.	JBLU	14.54	14.24	1.65	18.85	(0.80)	(2.51)	35.50	76.0%	NMF	3,700	NIL	12.05	318,000,000	NMF	NMF	6,037
Southwest Airlines Co.	LUV	46.61	42.84	1.05	26.65	-	(2.15)	46.60	78.5%	NMF	10,274	Nil	17.60	592,000,000	NMF	1.75	15,790
Spirit Airlines	SAVE	24.45	21.85	1.85	29.65	(1.15)	(4.26)	-	0.0%	NMF	3,000	NIL	20.20	108,405,182	NMF	NMF	3,231
United Continental Holding, Inc	UAL	43.25	43.78	1.60	77.00	(6.25)	(13.94)	155.00	70.0%	NMF	30,580	NIL	15.70	323,800,000	NMF	NMF	24,634

Value Line February 2022

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 2021

## DATA INPUT

WASHINGTON STATE DEPARTM

2022 ASSESSMENT YEAR

PASSENGER AIRLINES

Instructions: Data entered on this page

					Projected (Next Year) 2022											
Guideline Companies	Operating Margin	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)
Name	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL
Alaska Air Group, Inc.	4.0%	(256)			66.95	7.55	4.25	80.55	81.0%	6.3%	0.20	33.10	127,000,000	8,500	14.0%	535
Allegiant Travel Co	15.0%	35	23.2%	2.9%	114.85	21.35	10.00	158.70	84.0%	8.7%	-	72.95	18,500,000	2,125	23.0%	185
American Airlines Group	NMF	(5,395)	NMF	NMF	64.10	1.60	(1.50)	77.00	78.0%	NMF	-	(11.80)	660,000,000	42,300	4.0%	(980)
Delta Air Lines, Inc.	NMF	(2,598)	NMF	NMF	67.50	5.30	1.90	72.00	80.0%	NMF	-	7.55	637,000,000	43,000	10.5%	1,215
Hawaiian Holdings, Inc.	NMF	(383)	NMF	NMF	49.25	0.85	(2.00)	60.15	80.0%	NMF	-	12.50	52,000,000	2,560	5.0%	(105)
JetBlue Airways Corp.	NMF	(797)	NMF	NMF	24.90	2.25	0.50	37.35	82.0%	2.0%	-	12.30	325,000,000	8,100	11.0%	160
Southwest Airlines Co.	2.0%	(1,271)	NMF	NMF	36.00	4.45	2.25	47.95	82.0%	6.2%	-	18.35	600,000,000	21,600	16.0%	1,340
Spirit Airlines	NMF	(423)	NMF	NMF	42.75	2.75	(0.25)			NMF	-	20.45	110,000,000	4,700	9.0%	(28)
United Continental Holding, Inc	NMF	(4,488)	NMF	NMF	75.30	(6.90)	(0.90)	160.00	80.0%	NMF	-	14.05	320,000,000	40,500	NMF	(295)

Value Line February 2022

The harmonic mean is the preferable m-  
high data points are given greater weight

The harmonic mean, on the other hand,  
Morning Star Data ending 2021

# DATA INPUT

WASHINGTON STATE DEPARTM

2022 ASSESSMENT YEAR

PASSENGER AIRLINES

Instructions: Data entered on this page

			Longer Term Forecasts											Income Statement		
			Dividends Per Share			Earnings Per Share			Revenue Per Share							
Guideline Companies	Return on Shareholder Equity	All Dividends to Net Profits	2023	2026	% Annual Change	2023	2026	% Annual Change	2023	2026	% Annual Change	Return on Shareholder Equity	Retained to Common Equity	Operating Income	Current Assets	PP & E Gross
Name	VL	VL	VL	VL		VL	VL		VL	VL		VL	VL	M*/10K	M*/10K	M*/10K
Alaska Air Group, Inc.	12.5%	5.0%	0.80	1.60	14.87%	6.50	8.00	4.24%	72.45	82.30	2.58%	18.50%	14.50%	(685,000,000)	3,920,000,000	10,000,000,000
Allegiant Travel Co	13.5%	0.0%	NIL	NIL	#VALUE!	16.00	22.60	7.15%	135.15	170.25	4.73%	22.00%	22.00%	263,075,000	1,338,411,000	2,955,685,000
American Airlines Group	0.0%	0.0%	Nil	NIL	#VALUE!	3.00	4.35	7.71%	71.20	78.50	1.97%	NMF	NMF	(1,059,000,000)	22,712,000,000	47,708,000,000
Delta Air Lines, Inc.	25.0%	0.0%	NIL	1.50	#VALUE!	5.65	8.00	7.20%	77.15	83.05	1.48%	45.50%	35.00%	(1,886,000,000)	15,940,000,000	64,931,000,000
Hawaiian Holdings, Inc.	0.0%	0.0%	Nil	NIL	#VALUE!	3.00	5.00	10.76%	57.00	66.60	3.16%	29.00%	29.00%	(82,564,000)	2,013,905,000	2,957,589,000
JetBlue Airways Corp.	4.0%	0.0%	NIL	NIL	0.00%	2.10	3.00	7.39%	26.75	32.30	3.84%	18.50%	18.50%	(80,000,000)	3,247,000,000	11,498,000,000
Southwest Airlines Co.	12.0%	0.0%	NIL	NIL	#VALUE!	3.75	5.15	6.55%	39.00	43.15	2.04%	21.50%	21.50%	1,721,000,000	18,036,000,000	27,574,000,000
Spirit Airlines	0.0%	0.0%	NIL	NIL	0.00%	2.85	5.65	14.67%	48.20	60.85	4.77%	21.50%	21.50%	(56,874,000)	18,424,910,000	4,741,451,000
United Continental Holding, Inc	0.0%	0.0%	NIL	NIL	0.00%	5.75	13.50	18.61%	131.15	162.50	4.38%	55.00%	55.00%	(1,020,000,000)	21,834,000,000	50,563,000,000

TTM DATA UPDATE

Value Line February 2022

The harmonic mean is the preferable m

high data points are given greater weig

The harmonic mean, on the other hand,

Morning Star Data ending 2021

## DATA INPUT

WASHINGTON STATE DEPARTM

2022 ASSESSMENT YEAR

PASSENGER AIRLINES

Instructions: Data entered on this page

Guideline Companies	Balance Sheet				Cash Flow Statement	Other Financials			
	PP & E Net	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
	M* / 10K	M*10K	10K/M*	10-K/M*	M*	10-K	10-K	10K	10-K
Alaska Air Group, Inc.	6,138,000,000	-	3,991,000,000	2,173,000,000	394,000,000	2,539,000,000	1,919,000,000	366,000,000	254,000,000
Allegiant Travel Co	2,259,507,000	-	663,045,000	1,612,486,000	181,035,000	1,447,462,000	1,261,170,000	130,053,000	21,346,000
American Airlines Group	29,537,000,000	1,988,000,000	19,006,000,000	35,571,000,000	2,335,000,000	37,323,000,000	38,567,000,000	2,489,000,000	1,425,000,000
Delta Air Lines, Inc.	28,749,000,000	6,001,000,000	20,966,000,000	25,138,000,000	1,998,000,000	25,084,000,000	26,900,000,000	1,782,000,000	430,000,000
Hawaiian Holdings, Inc.	1,957,623,000	13,500,000	1,111,010,000	1,704,298,000	138,299,000	1,838,954,000	1,808,530,000	97,096,000	109,476,000
JetBlue Airways Corp.	8,271,000,000	-	3,417,000,000	3,651,000,000	540,000,000	4,003,000,000	3,982,000,000	355,000,000	99,000,000
Southwest Airlines Co.	14,842,000,000	295,000,000	9,164,000,000	10,274,000,000	1,272,000,000	10,297,000,000	11,796,000,000	453,000,000	205,000,000
Spirit Airlines	3,856,593,000	-	1,275,602,000	2,975,823,000	297,211,000	3,238,200,000	3,275,800,000	208,948,000	246,601,000
United Continental Holding, Inc	32,074,000,000	2,803,000,000	18,304,000,000	30,361,000,000	2,485,000,000	33,363,000,000	34,550,000,000	3,002,000,000	228,000,000

Value Line February 2022

The harmonic mean is the preferable m

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The harmonic mean, on the other hand,

Morning Star Data ending 2021



## 2022 Multi Stage Dividend Growth Model Using FCFE

Airline Industry

Assumptions:

4.14%	GDP
12.3	Median Industry PE
0.0%	Target Dividend Payout Ratio
4.0%	Target ROE

Alaska Air Group  
ALK

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow
Historic	0		0.00%	-7733.99%	7833.99%	-2.03			-52.10
	2022	-309.36%	12.50%	176.47%	-76.47%	4.25	-3.25		-3.25
	2023	22.06%	14.00%	129.09%	-29.09%	5.19	-1.51		-1.51
Stage 1	2024	18.07%	15.50%	98.75%	1.25%	6.13	0.08		0.08
	2025	15.31%	17.00%	78.08%	21.92%	7.06	1.55		1.55
	2026	13.27%	18.50%	61.88%	38.12%	8.00	3.05		3.05
	2027	11.45%	15.60%	61.67%	38.33%	8.92	3.42		3.42
	2028	9.62%	12.70%	61.37%	38.63%	9.77	3.78		3.78
Stage 2	2029	7.79%	9.80%	60.89%	39.11%	10.54	4.12		4.12
	2030	5.97%	6.90%	60.00%	40.00%	11.16	4.47		4.47
	2031	4.14%	4.00%	103.50%	-3.50%	11.63	-0.41	148.42	148.02
Stage 3	11+	4.14%	4.00%	103.50%	-3.50%	12.11	-0.42		

**Ke = 12.20%**

price = 52.10

Allegiant Travel Co  
ALGT

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow
Historic	0		2.90%	9754.90%	-9654.90%	2.04			-187.04
	2022	390.20%	13.50%	233.33%	-133.33%	10.00	-13.33		-13.33
	2023	31.50%	15.63%	153.31%	-53.31%	13.15	-7.01		-7.01
Stage 1	2024	23.95%	17.75%	108.87%	-8.87%	16.30	-1.45		-1.45
	2025	19.33%	19.88%	81.49%	18.51%	19.45	3.60		3.60
	2026	16.20%	22.00%	62.66%	37.34%	22.60	8.44		8.44
	2027	13.78%	18.40%	61.81%	38.19%	25.72	9.82		9.82
	2028	11.37%	14.80%	60.56%	39.44%	28.64	11.30		11.30
Stage 2	2029	8.96%	11.20%	58.49%	41.51%	31.21	12.95		12.95
	2030	6.55%	7.60%	54.47%	45.53%	33.25	15.14		15.14
	2031	4.14%	4.00%	103.50%	-3.50%	34.63	-1.21	442.07	440.86
Stage 3	11+	4.14%	4.00%	103.50%	-3.50%	36.06	-1.26		

**Ke = 9.74%**

price = 187.04

American Airlines Group  
AAL

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow
Historic	0		NMF	-2052.51%	2152.51%	-8.38			-17.96
	2022	-82.10%	0.00%	NMF	NMF	-1.50	NMF		0.00
	2023	-97.50%	NMF	NMF	NMF	-0.04	NMF		0.00
Stage 1	2024	-3900.00%	NMF	NMF	NMF	1.43	NMF		0.00
	2025	102.63%	NMF	NMF	NMF	2.89	NMF		0.00
	2026	50.65%	NMF	NMF	NMF	4.35	NMF		0.00
	2027	41.35%	NMF	NMF	NMF	6.15	NMF		0.00
	2028	32.05%	NMF	NMF	NMF	8.12	NMF		0.00
Stage 2	2029	22.74%	NMF	NMF	NMF	9.97	NMF		0.00
	2030	13.44%	NMF	NMF	NMF	11.31	NMF		0.00
	2031	4.14%	NMF	NMF	NMF	11.77	NMF	150.30	150.30
Stage 3	11+	4.14%	4.00%	103.50%	-3.50%	12.26	-0.43		

**Ke = 23.67%**

price = 17.96

Delta Air Lines Inc  
DAL

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow
Historic	0		NMF	-3664.22%	3764.22%	-4.08			-39.08
	2022	-146.57%	25.00%	321.05%	-221.05%	1.90	-4.20		-4.20
	2023	80.26%	30.13%	147.80%	-47.80%	3.43	-1.64		-1.64
Stage 1	2024	44.53%	35.25%	87.40%	12.60%	4.95	0.62		0.62
	2025	30.81%	40.38%	58.33%	41.67%	6.48	2.70		2.70
	2026	23.55%	45.50%	43.23%	56.77%	8.00	4.54		4.54
	2027	19.67%	37.20%	42.44%	57.56%	9.57	5.51		5.51
	2028	15.79%	28.90%	41.19%	58.81%	11.08	6.52		6.52
Stage 2	2029	11.90%	20.60%	38.94%	61.06%	12.40	7.57		7.57
	2030	8.02%	12.30%	33.66%	66.34%	13.40	8.89		8.89

price = 39.08

	2031	10	4.14%	4.00%	103.50%	-3.50%	13.95	-0.49	178.15	177.66
Stage 3		11+	4.14%	4.00%	103.50%	-3.50%	14.53	-0.51		

Ke = 18.59%

Hawaiian Holdings Inc

HA	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow	
Historic	0		NMF	-1837.75%	1937.75%	-7.55			-18.37	
	2022	1	-73.51%	0.00%	NMF	NMF	-2.00	NMF	0.00	
	2023	2	-87.50%	7.25%	-9655.17%	9755.17%	-0.25	-24.39	-24.39	
Stage 1	2024	3	-700.00%	14.50%	804.60%	-704.60%	1.50	-10.57	-10.57	
	2025	4	116.67%	21.75%	247.57%	-147.57%	3.25	-4.80	-4.80	
	2026	5	53.85%	29.00%	151.40%	-51.40%	5.00	-2.57	-2.57	
	2027	6	43.90%	24.00%	141.52%	-41.52%	7.20	-2.99	-2.99	
	2028	7	33.96%	19.00%	126.43%	-26.43%	9.64	-2.55	-2.55	
Stage 2	2029	8	24.02%	14.00%	100.58%	-0.58%	11.95	-0.07	-0.07	
	2030	9	14.08%	9.00%	46.00%	54.00%	13.64	7.36	7.36	
	2031	10	4.14%	4.00%	103.50%	-3.50%	14.20	-0.50	181.31	180.82
Stage 3		11+	4.14%	4.00%	103.50%	-3.50%	14.79	-0.52		

Ke = 14.05%

price = 18.37

JetBlue Airways Corp

JBLU	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow	
Historic	0		NMF	-2998.01%	3098.01%	-2.51			-14.24	
	2022	1	-119.92%	4.00%	3125.00%	-3025.00%	0.50	-15.13	-15.13	
	2023	2	125.00%	7.63%	728.60%	-628.60%	1.13	-7.07	-7.07	
Stage 1	2024	3	55.56%	11.25%	317.46%	-217.46%	1.75	-3.81	-3.81	
	2025	4	35.71%	14.88%	176.91%	-76.91%	2.38	-1.83	-1.83	
	2026	5	26.32%	18.50%	118.27%	-18.27%	3.00	-0.55	-0.55	
	2027	6	21.88%	15.60%	111.83%	-11.83%	3.66	-0.43	-0.43	
	2028	7	17.45%	12.70%	102.44%	-2.44%	4.29	-0.10	-0.10	
Stage 2	2029	8	13.01%	9.80%	87.50%	12.50%	4.85	0.61	0.61	
	2030	9	8.58%	6.90%	60.00%	40.00%	5.27	2.11	2.11	
	2031	10	4.14%	4.00%	103.50%	-3.50%	5.49	-0.19	70.05	69.86
Stage 3		11+	4.14%	4.00%	103.50%	-3.50%	5.71	-0.20		

Ke = 6.12%

price = 14.24

Southwest Airlines Co

LUV	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow	
Historic	0		NMF	-5116.28%	5216.28%	-2.15			-42.84	
	2022	1	-204.65%	12.00%	268.52%	-168.52%	2.25	-3.79	-3.79	
	2023	2	32.22%	14.38%	169.53%	-69.53%	2.98	-2.07	-2.07	
Stage 1	2024	3	24.37%	16.75%	116.98%	-16.98%	3.70	-0.63	-0.63	
	2025	4	19.59%	19.13%	85.67%	14.33%	4.43	0.63	0.63	
	2026	5	16.38%	21.50%	64.82%	35.18%	5.15	1.81	1.81	
	2027	6	13.94%	18.00%	63.81%	36.19%	5.87	2.12	2.12	
	2028	7	11.49%	14.50%	62.33%	37.67%	6.54	2.46	2.46	
Stage 2	2029	8	9.04%	11.00%	59.90%	40.10%	7.13	2.86	2.86	
	2030	9	6.59%	7.50%	55.20%	44.80%	7.60	3.41	3.41	
	2031	10	4.14%	4.00%	103.50%	-3.50%	7.92	-0.28	101.08	100.80
Stage 3		11+	4.14%	4.00%	103.50%	-3.50%	8.25	-0.29		

Ke = 9.30%

price = 42.84

Spirit Airlines Co

SAVE	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow	
Historic	0		NMF	-2353.29%	2453.29%	-4.26			-21.85	
	2022	1	-94.13%	0.00%	NMF	NMF	-0.25	NMF	0.00	
	2023	2	-590.00%	5.38%	2240.15%	-2140.15%	1.23	-26.22	-26.22	
Stage 1	2024	3	120.41%	10.75%	508.18%	-408.18%	2.70	-11.02	-11.02	
	2025	4	54.63%	16.13%	219.10%	-119.10%	4.18	-4.97	-4.97	
	2026	5	35.33%	21.50%	135.31%	-35.31%	5.65	-1.99	-1.99	
	2027	6	29.09%	18.00%	126.96%	-26.96%	7.29	-1.97	-1.97	
	2028	7	22.85%	14.50%	114.59%	-14.59%	8.96	-1.31	-1.31	
Stage 2	2029	8	16.62%	11.00%	94.34%	5.66%	10.45	0.59	0.59	
	2030	9	10.38%	7.50%	55.20%	44.80%	11.53	5.17	5.17	
	2031	10	4.14%	4.00%	103.50%	-3.50%	12.01	-0.42	153.34	152.92

price = 21.85

Stage 3	11+	4.14%	4.00%	103.50%	-3.50%	12.51	-0.44		
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**Ke = 10.72%**

United Continental Holdings  
UAL

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow
Historic	0		NMF	-2338.59%	2438.59%	-13.94			-43.78
	2022	1	-93.54%	0.00%	NMF	-0.90	NMF		0.00
	2023	2	-400.00%	13.75%	969.70%	-869.70%	2.70	-23.48	-23.48
Stage 1	2024	3	133.33%	27.50%	207.79%	-107.79%	6.30	-6.79	-6.79
	2025	4	57.14%	41.25%	88.15%	11.85%	9.90	1.17	1.17
	2026	5	36.36%	55.00%	54.40%	45.60%	13.50	6.16	6.16
	2027	6	29.92%	44.80%	52.40%	47.60%	17.54	8.35	8.35
	2028	7	23.47%	34.60%	49.22%	50.78%	21.66	11.00	11.00
Stage 2	2029	8	17.03%	24.40%	43.38%	56.62%	25.34	14.35	14.35
	2030	9	10.58%	14.20%	29.15%	70.85%	28.03	19.86	19.86
	2031	10	4.14%	4.00%	103.50%	-3.50%	29.19	-1.02	372.61
Stage 3	11+	4.14%	4.00%	103.50%	-3.50%	30.40	-1.06		371.59

price = 43.78

**Ke = 22.41%**

source: Value Line

## 2022 Multi Stage Ke Estimate Using Residual Income Model

### Airline Industry

Assumptions:	9.35%	Sustainable Growth Rate
	72.9%	Target Dividend Payout Ratio
	28.9%	Target ROE

Alaska Air Group  
ALK

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow	
<b>Historic</b>	0			0.00%	100.00%	-2.03		-52.10	price = 52.10
	2021	-309.36%	12.50%	0.00%	100.00%	4.25	4.25	4.25	
	2022	22.06%	14.00%	129.09%	-29.09%	5.19	-1.51	-1.51	
<b>Stage 1</b>	2023	18.07%	15.50%	98.75%	1.25%	6.13	0.08	0.08	
	2024	15.31%	17.00%	78.08%	21.92%	7.06	1.55	1.55	
	2025	13.27%	18.50%	67.51%	32.49%	8.00	2.60	2.60	
	2026	12.49%	20.59%	56.85%	43.15%	9.00	3.88	3.88	
	2027	11.70%	22.68%	48.15%	51.85%	10.05	5.21	5.21	
<b>Stage 2</b>	2028	10.92%	24.76%	40.92%	59.08%	11.15	6.59	6.59	
	2029	10.13%	26.85%	34.81%	65.19%	12.28	8.00	8.00	
	2030	9.35%	28.94%	32.30%	67.70%	13.43	9.09	9.09	
<b>Stage 3</b>	2031	9.35%	28.94%	32.30%	67.70%	14.68	9.94	9.94	
	2032	9.35%	28.94%	32.30%	67.70%	16.05	10.87	10.87	
	2219	199	9.35%	28.94%	32.30%	67.70%	289,997,016.30	196,327,353.69	196,327,353.69
	2220	200	9.35%	28.94%	32.30%	67.70%	317,102,674.92	214,677,826.03	214,677,826.03
								<b>15.58%</b>	

Allegiant Travel Co  
ALGT

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow	
<b>Historic</b>	0			0.00%	100.00%	2.04		-187.04	price = 187.04
	2021	390.20%	13.50%	233.33%	-133.33%	10.00	-13.33	-13.33	
	2022	31.50%	15.63%	153.31%	-53.31%	13.15	-7.01	-7.01	
<b>Stage 1</b>	2023	23.95%	17.75%	108.87%	-8.87%	16.30	-1.45	-1.45	
	2024	19.33%	19.88%	81.49%	18.51%	19.45	3.60	3.60	
	2025	16.20%	22.00%	67.39%	32.61%	22.60	7.37	7.37	
	2026	14.83%	23.39%	57.53%	42.47%	25.95	11.02	11.02	
	2027	13.46%	24.78%	48.78%	51.22%	29.44	15.08	15.08	
<b>Stage 2</b>	2028	12.09%	26.16%	40.96%	59.04%	33.00	19.48	19.48	
	2029	10.72%	27.55%	33.93%	66.07%	36.54	24.14	24.14	
	2030	9.35%	28.94%	32.30%	67.70%	39.95	27.05	27.05	
<b>Stage 3</b>	2031	9.35%	28.94%	32.30%	67.70%	43.69	29.58	29.58	
	2032	9.35%	28.94%	32.30%	67.70%	47.77	32.34	32.34	
	2219	199	9.35%	28.94%	32.30%	67.70%	862,881,801.93	584,169,116.23	584,169,116.23
	2220	200	9.35%	28.94%	32.30%	67.70%	943,534,285.35	638,770,673.31	638,770,673.31
								<b>14.09%</b>	

American Airlines Group  
AAL

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow	
<b>Historic</b>	0			0.00%	100.00%	-8.38		-17.96	price = 17.96
	2021	-82.10%	0.00%	0.00%	100.00%	-1.50	-1.50	-1.50	
	2022	-97.50%	NMF	0.00%	100.00%	-0.04	-0.04	-0.04	
<b>Stage 1</b>	2023	-3900.00%	NMF	0.00%	100.00%	1.43	1.43	1.43	
	2024	102.63%	NMF	NMF	NMF	2.89	NMF	0.00	
	2025	50.65%	NMF	NMF	NMF	4.35	NMF	0.00	
	2026	42.39%	NMF	NMF	NMF	6.19	NMF	0.00	
	2027	34.13%	NMF	NMF	NMF	8.31	NMF	0.00	
<b>Stage 2</b>	2028	25.87%	NMF	NMF	NMF	10.46	NMF	0.00	
	2029	17.61%	NMF	NMF	NMF	12.30	NMF	0.00	
	2030	9.35%	NMF	NMF	NMF	13.45	NMF	0.00	
<b>Stage 3</b>	2031	9.35%	28.94%	32.30%	67.70%	14.70	9.95	9.95	
	2032	9.35%	28.94%	32.30%	67.70%	16.08	10.89	10.89	
	2219	199	9.35%	28.94%	32.30%	67.70%	290,433,498.87	196,622,851.45	196,622,851.45
	2220	200	9.35%	28.94%	32.30%	67.70%	317,579,954.96	215,000,943.59	215,000,943.59
								<b>18.92%</b>	

Delta Air Lines Inc  
DAL

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow	
<b>Historic</b>	0			0.00%	100.00%	-4.08		-39.08	price = 39.08
	2021	-146.57%	25.00%	0.00%	100.00%	1.90	1.90	1.90	
	2022	80.26%	30.13%	147.80%	-47.80%	3.43	-1.64	-1.64	
<b>Stage 1</b>	2023	44.53%	35.25%	87.40%	12.60%	4.95	0.62	0.62	
	2024	4	30.81%	40.38%	58.33%	6.48	2.70	2.70	
	2025	5	23.55%	45.50%	45.52%	8.00	4.36	4.36	
	2026	6	20.71%	42.19%	42.36%	9.66	5.57	5.57	
	2027	7	17.87%	38.88%	38.66%	11.38	6.98	6.98	
<b>Stage 2</b>	2028	8	15.03%	35.56%	34.27%	13.09	8.61	8.61	
	2029	9	12.19%	32.25%	28.98%	14.69	10.43	10.43	
	2030	10	9.35%	28.94%	32.30%	16.06	10.87	10.87	

<b>Stage 3</b>	2031	11	9.35%	28.94%	32.30%	67.70%	17.56	11.89	11.89
	2032	12	9.35%	28.94%	32.30%	67.70%	19.20	13.00	13.00
	2219	199	9.35%	28.94%	32.30%	67.70%	346,900,770.62	234,851,072.47	234,851,072.47
	2220	200	9.35%	28.94%	32.30%	67.70%	379,325,152.03	256,802,308.65	256,802,308.65
									<b>18.39%</b>

Hawaiian Holdings Inc  
HA

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow	
<b>Historic</b>	0			0.00%	100.00%	-7.55		-18.37	
	2021	1	-73.51%	0.00%	100.00%	-2.00	-2.00	-2.00	
	2022	2	-87.50%	7.25%	0.00%	-0.25	-0.25	-0.25	
<b>Stage 1</b>	2023	3	-700.00%	14.50%	0.00%	1.50	1.50	1.50	
	2024	4	116.67%	21.75%	247.57%	3.25	-4.80	-4.80	
	2025	5	53.85%	29.00%	154.99%	5.00	-2.75	-2.75	
	2026	6	44.95%	28.99%	124.35%	7.25	-1.76	-1.76	
	2027	7	36.05%	28.98%	93.69%	9.86	0.62	0.62	
<b>Stage 2</b>	2028	8	27.15%	28.96%	63.00%	37.00%	12.54	4.64	
	2029	9	18.25%	28.95%	32.29%	67.71%	14.82	10.04	
	2030	10	9.35%	28.94%	32.30%	67.70%	16.21	10.97	
	2031	11	9.35%	28.94%	32.30%	67.70%	17.72	12.00	
<b>Stage 3</b>	2032	12	9.35%	28.94%	32.30%	67.70%	19.38	13.12	
	2219	199	9.35%	28.94%	32.30%	67.70%	350,081,852.88	237,004,658.28	237,004,658.28
	2220	200	9.35%	28.94%	32.30%	67.70%	382,803,566.06	259,157,187.44	259,157,187.44

price = 18.37

JetBlue Airways Corp  
JBLU

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow	
<b>Historic</b>	0		NMF	0.00%	100.00%	-2.51		-14.24	
	2021	1	-119.92%	4.00%	0.00%	0.50	0.50	0.50	
	2022	2	125.00%	7.63%	728.60%	1.13	-7.07	-7.07	
<b>Stage 1</b>	2023	3	55.56%	11.25%	317.46%	1.75	-3.81	-3.81	
	2024	4	35.71%	14.88%	176.91%	2.38	-1.83	-1.83	
	2025	5	26.32%	18.50%	123.90%	3.00	-0.72	-0.72	
	2026	6	22.92%	20.59%	94.85%	3.69	0.19	0.19	
	2027	7	19.53%	22.68%	71.16%	4.41	1.27	1.27	
<b>Stage 2</b>	2028	8	16.13%	24.76%	51.45%	48.55%	5.12	2.49	
	2029	9	12.74%	26.85%	34.81%	65.19%	5.77	3.76	
	2030	10	9.35%	28.94%	32.30%	67.70%	6.31	4.27	
	2031	11	9.35%	28.94%	32.30%	67.70%	6.90	4.67	
<b>Stage 3</b>	2032	12	9.35%	28.94%	32.30%	67.70%	7.55	5.11	
	2219	199	9.35%	28.94%	32.30%	67.70%	136,293,262.90	92,270,244.62	92,270,244.62
	2220	200	9.35%	28.94%	32.30%	67.70%	149,032,423.82	100,894,629.04	100,894,629.04

price = 14.24

Southwest Airlines Co  
LUV

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow	
<b>Historic</b>	0		NMF	0.00%	100.00%	-2.15		-42.84	
	2021	1	-204.65%	12.00%	0.00%	2.25	2.25	2.25	
	2022	2	32.22%	14.38%	169.53%	2.98	-2.07	-2.07	
<b>Stage 1</b>	2023	3	24.37%	16.75%	116.98%	3.70	-0.63	-0.63	
	2024	4	19.59%	19.13%	85.67%	4.43	0.63	0.63	
	2025	5	16.38%	21.50%	69.66%	5.15	1.56	1.56	
	2026	6	14.98%	22.99%	59.03%	5.92	2.43	2.43	
	2027	7	13.57%	24.48%	49.69%	6.72	3.38	3.38	
<b>Stage 2</b>	2028	8	12.16%	25.96%	41.42%	58.58%	7.54	4.42	
	2029	9	10.75%	27.45%	34.05%	65.95%	8.35	5.51	
	2030	10	9.35%	28.94%	32.30%	67.70%	9.13	6.18	
	2031	11	9.35%	28.94%	32.30%	67.70%	9.99	6.76	
<b>Stage 3</b>	2032	12	9.35%	28.94%	32.30%	67.70%	10.92	7.39	
	2219	199	9.35%	28.94%	32.30%	67.70%	197,285,451.89	133,561,824.83	133,561,824.83
	2220	200	9.35%	28.94%	32.30%	67.70%	215,725,476.47	146,045,681.64	146,045,681.64

price = 42.84

Spirit Airlines Co  
SAVE

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow
<b>Historic</b>	0		NMF	0.00%	100.00%	-4.26		-21.85
	2021	1	-94.13%	0.00%	0.00%	-0.25	-0.25	-0.25
	2022	2	-590.00%	5.38%	0.00%	1.23	1.23	1.23
<b>Stage 1</b>	2023	3	120.41%	10.75%	508.18%	2.70	-11.02	-11.02
	2024	4	54.63%	16.13%	219.10%	4.18	-4.97	-4.97

price = 21.85

	2025	5	35.33%	21.50%	140.15%	-40.15%	5.65	-2.27	-2.27
	2026	6	30.13%	22.99%	108.48%	-8.48%	7.35	-0.62	-0.62
	2027	7	24.94%	24.48%	80.65%	19.35%	9.19	1.78	1.78
<b>Stage 2</b>	2028	8	19.74%	25.96%	56.02%	43.98%	11.00	4.84	4.84
	2029	9	14.54%	27.45%	34.05%	65.95%	12.60	8.31	8.31
	2030	10	9.35%	28.94%	32.30%	67.70%	13.78	9.33	9.33
<b>Stage 3</b>	2031	11	9.35%	28.94%	32.30%	67.70%	15.06	10.20	10.20
	2032	12	9.35%	28.94%	32.30%	67.70%	16.47	11.15	11.15
	2219	199	9.35%	28.94%	32.30%	67.70%	297,539,305.00	201,433,466.85	201,433,466.85
	2220	200	9.35%	28.94%	32.30%	67.70%	325,349,931.91	220,261,201.21	220,261,201.21
									<b>17.28%</b>

United Continental Holdings  
UAL

	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow	
<b>Historic</b>	0		NMF	0.00%	100.00%	-13.94		-43.78	price = 43.78
	2021	1	-93.54%	0.00%	0.00%	-0.90	-0.90	-0.90	
	2022	2	-400.00%	13.75%	0.00%	2.70	2.70	2.70	
<b>Stage 1</b>	2023	3	133.33%	27.50%	207.79%	6.30	-6.79	-6.79	
	2024	4	57.14%	41.25%	88.15%	9.90	1.17	1.17	
	2025	5	36.36%	55.00%	56.29%	13.50	5.90	5.90	
	2026	6	30.96%	49.79%	51.33%	17.68	8.60	8.60	
	2027	7	25.56%	44.58%	45.21%	22.20	12.16	12.16	
<b>Stage 2</b>	2028	8	20.15%	39.36%	37.47%	26.67	16.68	16.68	
	2029	9	14.75%	34.15%	27.37%	30.61	22.23	22.23	
	2030	10	9.35%	28.94%	32.30%	33.47	22.66	22.66	
<b>Stage 3</b>	2031	11	9.35%	28.94%	32.30%	36.59	24.77	24.77	
	2032	12	9.35%	28.94%	32.30%	40.02	27.09	27.09	
	2219	199	9.35%	28.94%	32.30%	722,796,047.67	489,331,363.16	489,331,363.16	
	2220	200	9.35%	28.94%	32.30%	790,354,890.75	535,068,554.01	535,068,554.01	
									<b>21.80%</b>

source: Value Line

# IMPLIED PREMIUMS FOR US MARKET

Updated January 2022

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%	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%

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