



COST OF CAPITAL STUDY

**YIELD CAPITALIZATION
2017 ASSESSMENT YEAR**

APPENDIX C

FREIGHT AIRLINES

EQUITY RATE						9.25%	
CAPITAL ASSET PRICING MODEL							PAGE
CAPM Ex Ante						8.51%	6
DIVIDEND GROWTH MODELS							
Value Line, based on Dividends Growth						9.60%	7
Value Line, based on Earnings Growth						9.60%	8
Value Line, based on Return on Equity						10.00%	9
RANGE						8.5125% - 10%	
DEBT RATE						4.25%	10
COST OF SECURED DEBT (LEASE) RATE						4.00%	10
MARKET CAPITAL STRUCTURE							
					Tax Shield		
Equity	70%	x	9.25%	=	6.48%	3	
Operating Leases	15%	x	4.00%	x 62.00%	= 0.37%	3	
Debt	15%	x	4.25%	x 62.00%	= 0.40%	3	
Marginal Tax Rate	38%						
WEIGHTED AVERAGE COST OF CAPITAL						7.24%	

SUPPORT FOR GUIDELINE COMPANIES

WASHINGTON STATE DEPARTMENT OF REVENUE

2017 ASSESSMENT YEAR

FREIGHT AIRLINES

Capital Structure at Book Value

Company	Ticker	Beta	Fin'l Strength	Price Stability	Growth Persist	Earnings Predict	P/E Ratio	Div'd Yield	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity	%
UPS	UPS	0.85	A	100	80	75	19.4	2.88%	2,890,800,000	18.9%	-	0.0%	12,394,000,000	81.1%	15,284,800,000	100.0%
Fed Ex	FDX	1.10	A++	80	65	60	15.6	0.86%	13,783,143,200	49.9%	-	0.0%	13,838,000,000	50.1%	27,621,143,200	100.0%
Atlas Air	AAWW	1.35	B+	20	25	55	11.2	-	1,500,000,000	47.4%	-	0.0%	1,667,000,000	52.6%	3,167,000,000	100.0%
CH Robinson	CHRW	0.80	A	75	40	75	19.5	2.48%	1,256,700,000	71.5%	-	0.0%	500,000,000	28.5%	1,756,700,000	100.0%
Expeditors Int'l	EXPD	0.95	A+	70	25	80	21.2	1.51%	1,911,600,000	100.0%	-	0.0%	-	-	1,911,600,000	100.0%
Air Transport Services	ATSG	1.35	B	20	55	20	-	-	347,649,600	44.7%	-	0.0%	429,415,000	55.3%	777,064,600	100.0%
	Mean	1.07	B+	61	48	61	17.4	1.93%	3,614,982,133	55.4%		0.0%	4,804,735,833	53.5%		
	Weighted Mean								21,689,892,800	42.9%	-	0.0%	28,828,415,000	57.1%	50,518,307,800	
	Median	1.03					19.4	2.00%		48.6%		0.0%		52.6%		
	Harmonic Mean	1.02						1.55%		42.7%		0.0%		47.84%		
	Max	1.35						2.88%		100.0%		0.0%		81.1%		
	Min	0.80						0.86%		18.9%		0.0%		28.5%		
	Say	1.05								45%		0.0%		55%	100%	100%

Washington State Department of Revenue

**SUPPORT FOR CAPITAL STRUCTURE
MARKET VALUE**

WASHINGTON STATE DEPARTMENT OF REVENUE

2017 ASSESSMENT YEAR

FREIGHT AIRLINES

Capital Structure at Market Value

Company	Ticker	Stock Price	Common Shares	Common Stock	%	Preferred Stock	%	Operating Lease	%	Long Term Debt	%	Total Debt & Equity
UPS	UPS	114.64	876,000,000	100,424,640,000	80.2%	-	0.0%	7,712,000,158	6.2%	17,134,000,000	13.7%	125,270,640,158
Fed Ex	FDX	186.20	265,520,000	49,439,824,000	55.7%	-	0.0%	24,948,598,761	28.1%	14,300,000,000	16.1%	88,688,422,761
Atlas Air	AAWW	52.15	25,000,000	1,303,750,000	25.6%	-	0.0%	1,817,906,491	35.6%	1,981,074,000	38.8%	5,102,730,491
CH Robinson	CHRW	73.26	142,000,000	10,402,920,000	92.3%	-	0.0%	341,907,942	3.0%	528,000,000	4.7%	11,272,827,942
Expeditors Int'l	EXPD	52.96	177,000,000	9,373,920,000	93.1%	-	0.0%	693,381,043	6.9%	-	-	10,067,301,043
Air Transport Services Group	ATSG	15.96	64,860,000	1,035,165,600	65.0%	-	0.0%	97,886,185	6.1%	458,900,000	28.8%	1,591,951,785
			Mean		68.6%		0.0%		14.3%		20.4%	
			Weighted Mean	171,980,219,600	71.1%	-	0.00%	35,611,680,581	14.72%	34,401,974,000	14.2%	241,993,874,181
			Median		72.6%		0.00%		6.52%		16.1%	
			Harmonic Mean		56.3%				6.9%		12.2%	
			Max		93.1%		0.0%		35.6%		38.8%	
			Min		25.6%		0.0%		3.0%		4.7%	

Source:

Stock Price: Yahoo

Market Value Debt: Bond Analysis

Target

70%

0%

15%

15%

100%

SUPPORT FOR MARKET MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE

2017 ASSESSMENT YEAR

FREIGHT AIRLINES

Company	Ticker	Stock Price	Revenues	Multiple	Cash Flow	Multiple	Earnings	Multiple	Book Value	Multiple
UPS	UPS	114.64	69.55	1.6	8.36	13.7	5.75	19.9	3.30	34.7
Fed Ex	FDX	186.20	189.68	1.0	21.27	8.8	10.80	17.2	51.91	3.6
Atlas Air	AAWW	52.15	73.00	0.7	7.25	7.2	1.45	NMF	60.00	0.87
CH Robinson	CHRW	73.26	92.55	0.8	4.15	17.7	3.59	20.4	8.85	8.28
Expeditors Int'l	EXPD	52.96	36.25	1.5	2.65	20.0	2.35	22.5	10.80	4.90
Air Transport Services Gr	ATSG	15.96	9.66	1.65	2.58	6.2	0.60	26.6	5.36	3.0
	Mean			1.2		12.2		21.3		9.2
	Median			1.2		11.2		20.4		4.2
	Harmonic Mean			1.1		10.1		20.9		2.8
	Max			1.7		20.0		26.6		34.7
	Min			0.71		6.2		17.2		0.87
	Std Dev			0.43		5.76		3.49		12.74
	Coefficient of Variation			0.36		0.47		0.16		1.38
	Percentile .25			0.8		7.6		19.9		3.1
	Percentile .75			1.6		16.7		22.5		7.4
	Say			1.20		12.00		20.00		NMF

ENTERPRISE VALUE MULTIPLES

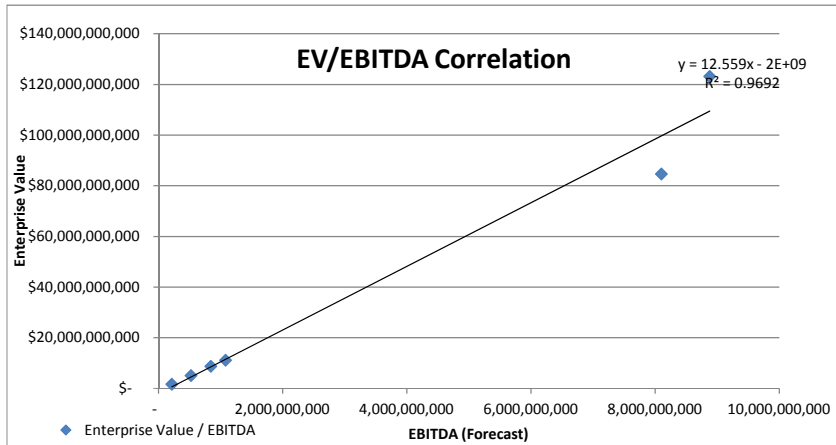
WASHINGTON STATE DEPARTMENT OF REVENUE

2017 ASSESSMENT YEAR

FREIGHT AIRLINES

Guideline Companies	Ticker	EV+OL	EBITDA + OL		Annual Change Rate (Growth)	EBITDA		Revenue	EV / Sales	CF	Debt Service	EV / CF
			historic	historic		forecast	forecast					
UPS	UPS	\$ 123,151,640,158	8,377,000,000	14.70	6.0%	8,879,620,000	13.87	64,010,000,000	1.92	7,323,360,000	728,195,000	15.30
Fed Ex	FDX	\$ 84,707,422,761	8,102,000,000	10.46	0.00%	8,102,000,000	10.46	61,003,000,000	1.39	5,647,610,400	607,750,000	13.54
Atlas Air	AAWW	\$ 5,102,730,491	483,110,000	10.56	8.00%	521,758,800	9.78	2,000,425,000	2.55	181,250,000	84,195,645	19.22
CH Robinson	CHRW	\$ 11,110,827,942	968,170,000	11.48	11.50%	1,079,509,550	10.29	13,503,000,000	0.82	589,300,000	22,440,000	18.16
Expeditors Int'l	EXPD	\$ 8,778,301,043	779,294,000	11.26	8.00%	841,637,520	10.43	6,728,750,000	1.30	469,050,000	-	18.72
Air Transport Services Group	ATSG	\$ 1,591,951,785	215,375,000	7.39	0.00%	215,375,000	7.39	-		167,338,800	19,503,250	8.52
	Mean			10.98	5.58%		10.37		1.60			15.58
	Median			10.91	7.00%		10.36		1.39			16.73
	Harmonic Mean			10.53	#NUM!		10.03		1.38			14.38
	Max			14.70	11.50%		13.87		2.55			19.22
	Min			7.39	0.00%		7.39		0.82			8.52
	Std Dev			2.35	4.67%		2.07		0.66			4.10
	Coefficient of Variation			0.21	0.84		0.20		0.41			0.26
	Say			11.00	6.50%		10.00		1.40			16.00

EBITDA from Yahoo February 2016, as of 12-31-15



Forecast EV/EBITDA By Rank

Guideline Companies	forecast	
Air Transport Services Group	7.39	9.15 Low Average
Atlas Air	9.78	
CH Robinson	10.29	
Expeditors Int'l	10.43	11.58 High Average
Fed Ex	10.46	10.5 High Median
UPS	13.87	11.0 Say

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT CAPITAL ASSET PRICING MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2017 ASSESSMENT YEAR

FREIGHT AIRLINES

Ex Ante

$$K_e = R_f + \beta (R_p)$$

Ke = Cost of Equity **8.51%**

to page 1

Rm =	rate of return	8.25%
Rf =	risk free rate	3.00%
Rp =	risk premium	5.25%
B =	Beta	1.05

page 2

Rp = Risk Premium **5.25%**

to above

Shannon Pratt and Roger Grabowski	3.5 - 6%	
Cost of Capital, Applications and Examples, Fifth Edition, 2014		
Dr. Aswath Damodaran	5.69%	chart page 14
http://pages.stern.nyu.edu/~adamodar/	5.14%	adjusted for Rf
2016 Implied Premium		
John Graham and Campbell Harvey	5.70%	10 year expected real return
Duke CFO magazine Global Business Outlook		
4th Qtr 2016	2.23%	Rf rate used in survey
	4.93%	adjusted for Rf

Rf = Risk Free Rate **3.00%**

to above

US Department of the Treasury		
Long Term (20 years) US Treasury Bond Yield		
	2.79%	
as of 12-30-16		
Value Line Investment Survey, Selected Yields January 6, 2017, page 3197		
as of 12-28-16		
US Treasury Securities year end data		
5 year	2.00%	
10 year	2.51%	
30 year	3.09%	
30 year Zero	3.17%	

Federal Reserve Statistical Release (<http://www.federalreserve.gov/Releases/H15/Current/>)

as of 12-30-16

Treasury Constant Maturities		
5 year	1.93%	
10 year	2.45%	
20 year	2.79%	
30 year	3.06%	
20 year TIPS	0.82%	1.97%
30 year TIPS	0.99%	2.07%
TIPS inflation indication		

Inflation **2.00%**

to appraisal template

Value Line Investment Survey, Economic Series January 6, 2017, page 1500		
Consumer Price Index Annual Rate of Change 2019-2021		
	2.50%	
Federal Reserve Bank of Philadelphia		
The Livingston Survey, December 9, 2016		
		Table 3
Inflation median (measured by the Consumer Price Index) over next 10		
		2.30%
https://www.philadelphiafed.org/research-and-data/real-time-center/livingston-survey		

Gross Domestic Product (GDP) **3.80%**

Federal Reserve Projected Long Run Real GDP Growth		
Median Projection Value From Dec 14, 2016 Report		
		1.80%
http://www.federalreserve.gov/monetarypolicy/fomccalendars.htm		
Congressional Budget Office Real GDP Economic Projections		
The Budget and Economic Outlook 2017-2027		
		Table 2-1, pg 157
Average Percentage Change From Year To Year		
	2017-2021	1.86%
	2022-2027	1.90%
http://www.cbo.gov/publication/52370		
Federal Reserve Bank of Philadelphia		
The Livingston Survey, December 9, 2016		
		pg 4
Average Annual Real GDP Growth Rate for Next Ten Years		
		2.20%
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

2017 ASSESSMENT YEAR

FREIGHT AIRLINES

Based on Dividend Growth

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

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

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Dividend Growth (G)	Ke	Forecast Dividend Growth	Ke Forecast Growth	Sustainable Dividend Growth	Ke Sustainable Growth	Ke with Multi Stage Growth Adj
UPS	UPS	114.64	3.30	2.88%	5.77%	8.65%	9.17%	12.05%	3.80%	6.68%	9.63%
Fed Ex	FDX	186.20	1.60	0.86%	60.00%	60.86%	15.30%	16.16%	3.80%	4.66%	11.81%
Atlas Air	AAWW	52.15	0.00						3.80%		
CH Robinson	CHRW	73.26	1.82	2.48%	4.60%	7.08%	7.88%	10.36%	3.80%	6.28%	8.62%
Expeditors Int'l	EXPD	52.96	0.80	1.51%	0.00%				3.80%	5.31%	9.24%
Air Transport Services Group	ATSG	15.96	0.00						3.80%		
			Mean	1.93%		25.53%		12.86%		5.73%	9.82%
			Median	2.00%		8.65%		12.05%		5.80%	9.44%
			Harmonic Mean	1.55%		10.98%		12.43%		5.62%	9.69%
			Max	2.88%		60.86%		16.16%		6.68%	11.81%
			Min	0.86%		7.08%		10.36%		4.66%	8.62%

Source: Value Line Projections 13-15 to 20-22

Say 9.60%
to page 1

**SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL**

WASHINGTON STATE DEPARTMENT OF REVENUE

2017 ASSESSMENT YEAR

FREIGHT AIRLINES

Based on Earnings Growth

$$K_e = (D_1 / P_0) + G$$

- Ke = Cost of Equity
 - D1 = Expected Dividends
 - P0 = Current Stock Price
 - G = Sustainable Growth -- Earnings
- assumption Sustainable growth can not exceed inflation plus real GDP

Company	Ticker	Stock Price (Po)	Expected Earnings (D1)	Yield (D1/Po)	Earnings Growth (G)	Ke	Forecast Earnings Growth	Ke Forecast Growth	Sustainable Earnings Growth	Ke Sustainable Growth	Ke with Multi Stage Growth Adj
UPS	UPS	114.64	5.90	5.15%	2.61%	7.76%	11.66%	16.80%	3.80%	8.95%	10.86%
Fed Ex	FDX	186.20	11.95	6.42%	10.65%	17.07%	13.73%	20.15%	3.80%	10.22%	9.97%
Atlas Air	AAWW	52.15	4.65	8.92%	NMF	NMF	10.42%	19.34%	3.80%	12.72%	8.91%
CH Robinson	CHRW	73.26	3.75	5.12%	4.46%	9.58%	9.28%	14.40%	3.80%	8.92%	9.28%
Expeditors Int'l	EXPD	52.96	2.50	4.72%	6.38%	11.10%	11.14%	15.86%	3.80%	8.52%	9.42%
Air Transport Services Group	ATSG	15.96	0.00						3.80%		
			Mean	6.06%		11.38%		17.31%		9.86%	9.69%
			Median	5.15%		10.34%		16.80%		8.95%	9.42%
			Harmonic Mean	5.75%		10.47%		17.04%		9.66%	9.64%
			Max	8.92%		17.07%		20.15%		12.72%	10.86%
			Min	4.72%		7.76%		14.40%		8.52%	8.91%

Source: Value Line Projections 13-15 to 20-22

Say **9.60%**
to page 1

**SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL**

WASHINGTON STATE DEPARTMENT OF REVENUE

2017 ASSESSMENT YEAR

FREIGHT AIRLINES

Based on Return on Equity

Ke = Cost of Equity
D1 = Expected Dividends
E1 = Expected Earnings
Po = Current Price
G = Sustainable Growth
b = Retained Earnings % = (1 - Payout Ratio)
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)	Growth (b*ROE)	Ke Dividends	Ke Earnings
UPS	UPS	114.64	3.30	5.90	2.88%	42.0%	5.15%	2.16%	5.04%	7.31%
Fed Ex	FDX	186.20	1.60	11.95	0.86%	87.0%	6.42%	5.58%	6.44%	12.00%
Atlas Air	AAWW	52.15	0.00	4.65		100.0%	8.92%	8.92%		17.83%
CH Robinson	CHRW	73.26	1.82	3.75	2.48%	51.0%	5.12%	2.61%	5.09%	7.73%
Expeditors Int'l	EXPD	52.96	0.80	2.50	1.51%	66.0%	4.72%	3.12%	4.63%	7.84%
Air Transport Services Group	ATSG	15.96	0.00	0.00		100.0%	0.00%	0.00%		
Mean									5.30%	10.54%
Median									5.07%	7.84%
Harmonic Mean									5.22%	9.38%
Max									6.44%	17.83%
Min									4.63%	7.31%

SUPPORT FOR DEBT RATING AND DEBT YIELD RATE

WASHINGTON STATE DEPARTMENT OF REVENUE

2017 ASSESSMENT YEAR

FREIGHT AIRLINES

Company	Ticker	Mergent's Ratings	S&P Ratings
UPS	UPS	Aa3	A+
Fed Ex	FDX	Baa1	BBB
Atlas Air	AAWW	-	-
CH Robinson	CHRW	-	-
Expeditors Int'l	EXPD	-	-
Air Transport Services Group	ATSG	-	-
Overall Average Debt Rating		A2	A-

Mergent's Bond Record January 2016, page 208

Corporate	Aaa	Aa	A	Baa
October	3.51%	3.61%	3.78%	4.38%
November	3.86%	3.94%	4.11%	4.71%
December	4.06%	4.12%	4.28%	4.83%
4th Qtr Average	3.81%	3.89%	4.06%	4.64%
2016 Average	3.67%	3.75%	3.96%	4.72%
Public Utilities		Aa	A	Baa
October		3.59%	3.77%	4.34%
November		3.91%	4.08%	4.64%
December		4.11%	4.27%	4.79%
4th Qtr Average		3.87%	4.04%	4.59%
2016 Average		3.73%	3.93%	4.68%
Industrials	Aaa	Aa	A	Baa
October	3.51%	3.63%	3.79%	4.40%
November	3.86%	3.97%	4.14%	4.77%
December	4.06%	4.13%	4.29%	4.85%
4th Qtr Average	3.81%	3.91%	4.07%	4.67%
2016 Average	3.67%	3.77%	3.98%	4.75%
Debt Yield Rate				4.25%
Cost of Secured Debt (Lease)		<i>Based on 4th Quarter Aa rate</i>		4.00%

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Washington State Department of Revenue

DATA INPUT

WASHINGTON STATE DEPARTMENT OF REVENUE

2017 ASSESSMENT YEAR

FREIGHT AIRLINES

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

Current Year (2016)

Guideline Companies		Stock Price	Beta	Revenues	Cash Flow	Earnings	Dividends	Bk Value	Common	Long-Term Debt
Name	Ticker	(YE Close)	Levered	Per Share	Per Share	Per Share	Per Share	Stock	Shares	
UPS	UPS	114.64	0.85	69.55	8.36	5.75	3.12	3.30	876,000,000	11,500,000,000
Fed Ex	FDX	186.20	1.10	189.68	21.27	10.80	1.00	51.91	265,520,000	13,838,000,000
Atlas Air	AAWW	52.15	1.35	73.00	7.25	1.45	-	60.00	25,000,000	1,700,000,000
CH Robinson	CHRW	73.26	0.80	92.55	4.15	3.59	1.74	8.85	142,000,000	500,000,000
Expeditors Int'l	EXPD	52.96	0.95	36.25	2.65	2.35	0.80	10.80	177,000,000	-
Air Transport Services Group	ATSG	15.96	1.35	9.66	2.58	0.60	-	5.36	64,860,000	319,800,000

Value Line February, 2017

Yahoo

Value Line

Value Line

Value Line

Value Line

Value Line

Value Line

Value Line

Value Line

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

Washington State Department of Revenue

						Projected (Next Year)					
Shareholders' Equity	Trailing P/E Ratio	Average Annual Dividend Yield	Operating Margin	Income Tax Rate	% Return on Shareholders' Equity	Revenues	Cash Flow	Earnings	Dividends	Bk Value	Common Shares
	VL	VL	VL	VL	V L	VL	VL	VL	VL	VL	VL
2,890,000,000	18.90	2.90%	17.0%	34.5%	199.3%	74.00	8.65	5.90	3.30	3.70	865,000,000
13,784,000,000	16.70	0.60%	15.2%	35.5%	21.9%	230.20	23.60	11.95	1.60	60.00	265,000,000
1,500,000,000	NMF	-	12.5%	37.0%	2.5%	81.65	10.40	4.65	-	63.25	24,500,000
1,255,000,000	21.50	2.40%	7.0%	37.5%	41.0%	96.45	4.30	3.75	1.82	9.45	140,000,000
1,915,000,000	23.40	1.60%	12.0%	35.0%	21.5%	38.45	2.80	2.50	0.80	12.30	175,000,000
347,500,000	14.20	-	37.0%	37.7%	10.5%						

Value Line

r),

Washington State Department of Revenue

				Forecast Dividends % Change						Forecast Earnings % Change						
Capital Spending per share	% Return on Shareholders' Equity	% Retained to Common Equity	All Dividends to Net Profits	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022	
VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	
3.30	NMF	NMF	58.0%	7.5	7.5	7.5	7	8.5	7.50	11.5	7.5	7.5	10	9.5	9.5	
19.00		20.0%	17.0%	13.0%	-	8	11.5	12.5	20.5	17.5	-	9	15	15.5	13.5	11
14.50		7.5%	7.5%	0.0%	-	-	-	-	-	-	10.5	6	0.5	3.5	15.5	15.5
0.65		39.5%	20.5%	49.0%	8.00	5	7.5	6	7	6.5	10.5	8	7	6.5	7.5	6.5
0.30		20.5%	13.5%	34.0%	11	10	8.5	9	7.5	7.5	11.5	7	6.5	10	10	8.5
					-	-	-	-	-	-	-	-	-	-	-	-

Washington State Department of Revenue

Forecast Cash Flow % Change						Forecast Revenue % Change						Income	Balance Sheet	
2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022	Operating Income	Current Assets	PP & E Gross
VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	M*	M*	M*
8.5	6	6	7.5	8	8	6	4.5	5	5	5.5	6	5,467,000,000	13,849,000,000	43,674,000,000
-	6	9	8	9.5	8	-	4.5	5	4	7.5	7	3,077,000,000	11,989,000,000	47,018,000,000
10	9	4.5	6.5	10	12	8	7	5	6.5	5.5	7.5	168,000,000	358,000,000	4,110,000,000
11	8.5	8	7.5	7	6	11.5	10	8.5	9	5	4.5	838,000,000	2,008,000,000	450,000,000
10.5	6.5	6.5	9.5	9	7.5	8	4.5	5	8	6	5.5	670,000,000	2,219,000,000	943,000,000
-	-	-	-	-	-	-	-	-	-	-	-	63,748,000	132,653,000	1,731,983,000

Washington State Department of Revenue

			Cash Flow		Fair Value	Operating Lease	
Intangibles (excl. GW)	Current Liabilities	Long Term Debt Less Current Maturities	Depreciation & Amortization	Carrying Value Debt	Debt	Current Maturity Long Term Debt	Aircraft Rent
M*	M*	M*/10K	M*	10_K	10-K	10-K	10-K
1,758,000,000	11,730,000,000	12,394,000,000	2,224,000,000	16,075,000,000	17,134,000,000	3,681,000,000	686,000,000
-	8,008,000,000	13,838,000,000	2,631,000,000	13,867,000,000	14,300,000,000	29,000,000	2,394,000,000
76,000,000	565,000,000	1,667,000,000	169,000,000	1,901,307,000	1,981,074,000	184,748,000	146,110,000
168,000,000	1,846,000,000	500,000,000	75,000,000		528,000,000	740,000,000	55,170,000
-	930,000,000	-	47,000,000		-		62,294,000
45,586,000	155,785,000	429,415,000	140,002,000	458,700,000	458,900,000	29,306,000	11,625,000

2017 Multi Stage Dividend Growth Model for DGM-d8 Freight Airline Industry

United Parcel Service

UPS		Growth	Payout	Earnings	Dividends	Terminal		
Year	Rate	Ratio				Value		
	0			5.75	3.12	(114.64)		price = 114.64
2017	1	7.50%	54.26%	6.18	3.35	3.35		123.24
2018	2	7.50%	54.26%	6.64	3.61	3.61		132.48
2019	3	7.50%	54.26%	7.14	3.88	3.88		142.42
2020	4	7.00%	54.26%	7.64	4.15	4.15		152.39
2021	5	8.50%	54.26%	8.29	4.50	4.50		165.34
2022	6	7.50%	48.39%	8.91	4.31	4.31		177.74
2023	7	6.76%	48.39%	9.52	4.61	4.61		189.75
2024	8	6.02%	48.39%	10.09	4.88	4.88		201.18
2025	9	5.28%	48.39%	10.62	5.14	5.14		211.80
2026	10	4.54%	48.39%	11.11	5.37	221.42	226.79	221.42
2027	11+	3.80%	48.39%	11.53	5.58			

$K_e = 9.63\%$

source: Valueline

FedEx

FDX		Growth	Payout	Earnings	Dividends	Terminal		
Year	Rate	Ratio				Value		
	0			10.80	1.00	(186.20)		price = 186.20
2017	1	0.00%	9.26%	10.80	1.00	1.00		186.20
2018	2	8.00%	9.26%	11.66	1.08	1.08		201.10
2019	3	11.50%	9.26%	13.01	1.20	1.20		224.22
2020	4	12.50%	9.26%	14.63	1.35	1.35		252.25
2021	5	20.50%	9.26%	17.63	1.63	1.63		303.96
2022	6	17.50%	12.73%	20.72	2.64	2.64		357.15
2023	7	14.76%	12.73%	23.77	3.03	3.03		409.87
2024	8	12.02%	12.73%	26.63	3.39	3.39		459.14
2025	9	9.28%	12.73%	29.10	3.70	3.70		501.74
2026	10	6.54%	12.73%	31.01	3.95	534.56	538.50	534.56
2027	11+	3.80%	12.73%	32.18	4.10			

$K_e = 11.81\%$

source: Valueline

CH Robinson

CHRW		Growth	Payout	Earnings	Dividends	Terminal		
Year	Rate	Ratio				Value		
	0			3.59	1.74	(73.26)		price = 73.26
2017	1	8.00%	48.47%	3.88	1.88	1.88		79.12
2018	2	5.00%	48.47%	4.07	1.97	1.97		83.08
2019	3	7.50%	48.47%	4.38	2.12	2.12		89.31
2020	4	6.00%	48.47%	4.64	2.25	2.25		94.67
2021	5	7.00%	48.47%	4.96	2.41	2.41		101.29
2022	6	6.50%	48.00%	5.29	2.54	2.54		107.88
2023	7	5.96%	48.00%	5.60	2.69	2.69		114.31
2024	8	5.42%	48.00%	5.91	2.83	2.83		120.50
2025	9	4.88%	48.00%	6.19	2.97	2.97		126.38
2026	10	4.34%	48.00%	6.46	3.10	131.87	134.97	131.87
2027	11+	3.80%	48.00%	6.71	3.22			

$$K_e = 8.62\%$$

source: Valueline

Expeditors Int'l
EXPD

	Year	Growth Rate	Payout Ratio	Earnings	Dividends	Terminal Value	
	0			2.35	0.80	(52.96)	price = 52.96
2017	1	11.00%	34.04%	2.61	0.89	0.89	58.79
2018	2	10.00%	34.04%	2.87	0.98	0.98	64.66
2019	3	8.50%	34.04%	3.11	1.06	1.06	70.16
2020	4	9.00%	34.04%	3.39	1.16	1.16	76.48
2021	5	7.50%	34.04%	3.65	1.24	1.24	82.21
2022	6	7.50%	31.43%	3.92	1.23	1.23	88.38
2023	7	6.76%	31.43%	4.19	1.32	1.32	94.35
2024	8	6.02%	31.43%	4.44	1.40	1.40	100.03
2025	9	5.28%	31.43%	4.67	1.47	1.47	105.31
2026	10	4.54%	31.43%	4.89	1.54	110.09	111.63
2027	11+	3.80%	31.43%	5.07	1.59		

$$K_e = 9.24\%$$

source: Valueline

2017 Multi Stage Dividend Growth Model for DGM-e9 Freight Airline Industry

United Parcel Service
UPS

	Year	Growth Rate	Payout Ratio	Earnings	Dividends	Terminal Value		price =
	0			5.75	3.12	(114.64)		114.64
2017	1	9.50%	54.26%	6.30	3.42	3.42		125.53
2018	2	7.50%	54.26%	6.77	3.67	3.67		134.95
2019	3	7.50%	54.26%	7.28	3.95	3.95		145.07
2020	4	10.00%	54.26%	8.00	4.34	4.34		159.57
2021	5	9.50%	54.26%	8.76	4.76	4.76		174.73
2022	6	9.50%	48.39%	9.60	4.64	4.64		191.33
2023	7	8.36%	48.39%	10.40	5.03	5.03		207.33
2024	8	7.22%	48.39%	11.15	5.40	5.40		222.30
2025	9	6.08%	48.39%	11.83	5.72	5.72		235.81
2026	10	4.94%	48.39%	12.41	6.01	247.46	253.47	247.46
2027	11+	3.80%	48.39%	12.88	6.23			

$K_e = 10.86\%$

source: Valueline

FedEx
FDX

	Year	Growth Rate	Payout Ratio	Earnings	Dividends	Terminal Value		price =
	0			10.80	1.00	(186.20)		186.20
2017	1	0.00%	9.26%	10.80	1.00	1.00		186.20
2018	2	9.00%	9.26%	11.77	1.09	1.09		202.96
2019	3	15.00%	9.26%	13.54	1.25	1.25		233.40
2020	4	15.50%	9.26%	15.64	1.45	1.45		269.58
2021	5	13.50%	9.26%	17.75	1.64	1.64		305.97
2022	6	11.00%	12.73%	19.70	2.51	2.51		339.63
2023	7	9.56%	12.73%	21.58	2.75	2.75		372.10
2024	8	8.12%	12.73%	23.33	2.97	2.97		402.31
2025	9	6.68%	12.73%	24.89	3.17	3.17		429.19
2026	10	5.24%	12.73%	26.20	3.33	451.68	455.01	451.68
2027	11+	3.80%	12.73%	27.19	3.46			

$K_e = 9.97\%$

source: Valueline

Atlas Air
AAWW

	Year	Growth Rate	Payout Ratio	Earnings	Dividends	Terminal Value		price =
	0			1.45	-	(52.15)		52.15
2017	1	10.50%	0.00%	1.60	0.00	0.00		57.63
2018	2	6.00%	0.00%	1.70	0.00	0.00		61.08
2019	3	0.50%	0.00%	1.71	0.00	0.00		61.39
2020	4	3.50%	0.00%	1.77	0.00	0.00		63.54
2021	5	15.50%	0.00%	2.04	0.00	0.00		73.39
2022	6	15.50%	0.00%	2.36	0.00	0.00		84.76
2023	7	13.16%	0.00%	2.67	0.00	0.00		95.91
2024	8	10.82%	0.00%	2.96	0.00	0.00		106.29
2025	9	8.48%	0.00%	3.21	0.00	0.00		115.31
2026	10	6.14%	0.00%	3.40	0.00	122.39	122.39	122.39
2027	11+	3.80%	0.00%	3.53	0.00			

$$K_e = 8.91\%$$

source: Valueline

CH Robinson
CHRW

	Year	Growth Rate	Payout Ratio	Earnings	Dividends	Terminal Value		price =
	0			3.59	1.74	(73.26)		73.26
2017	1	10.50%	48.47%	3.97	1.92	1.92		80.95
2018	2	8.00%	48.47%	4.28	2.08	2.08		87.43
2019	3	7.00%	48.47%	4.58	2.22	2.22		93.55
2020	4	6.50%	48.47%	4.88	2.37	2.37		99.63
2021	5	7.50%	48.47%	5.25	2.54	2.54		107.10
2022	6	6.50%	48.00%	5.59	2.68	2.68		114.06
2023	7	5.96%	48.00%	5.92	2.84	2.84		120.86
2024	8	5.42%	48.00%	6.24	3.00	3.00		127.41
2025	9	4.88%	48.00%	6.55	3.14	3.14		133.63
2026	10	4.34%	48.00%	6.83	3.28	139.43	142.71	139.43
2027	11+	3.80%	48.00%	7.09	3.40			

$$K_e = 9.28\%$$

source: Valueline

Expeditors Int'l
EXPD

	Year	Growth Rate	Payout Ratio	Earnings	Dividends	Terminal Value		price =
	0			2.35	0.80	(52.96)		52.96
2017	1	11.50%	34.04%	2.62	0.89	0.89		59.05
2018	2	7.00%	34.04%	2.80	0.95	0.95		63.18
2019	3	6.50%	34.04%	2.99	1.02	1.02		67.29
2020	4	10.00%	34.04%	3.28	1.12	1.12		74.02
2021	5	10.00%	34.04%	3.61	1.23	1.23		81.42
2022	6	8.50%	31.43%	3.92	1.23	1.23		88.34
2023	7	7.56%	31.43%	4.22	1.33	1.33		95.02
2024	8	6.62%	31.43%	4.50	1.41	1.41		101.31
2025	9	5.68%	31.43%	4.75	1.49	1.49		107.07
2026	10	4.74%	31.43%	4.98	1.56	112.14	113.71	112.14
2027	11+	3.80%	31.43%	5.17	1.62			

$$K_e = 9.42\%$$

source: Valueline

IMPLIED PREMIUMS FOR US MARKET

Updated January 2017.

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

Year	Earnings Yield	Dividend Yield	S&P 500	Earnings*	Dividends*	% Change in Earnings	% Change in Dividends	T-Bill Rate	T-Bond Rate	Bond-Bill	Boothed Growth	Dividend Premium	Net Growth Est.	Implied Premium (FCFE)	ERP/Riskfree Rate
1960	5.34%	3.41%	58.11	3.10	1.98			0.0266	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%	1.24
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%	0.92
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%	0.82
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%	0.79
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%	0.71
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%	0.79
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%	0.56
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%	0.49
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%	0.47
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%	0.52
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%	0.52
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%	0.42
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%	0.62
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%	0.76
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%	0.53
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%	0.67
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%	0.76
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%	0.63
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%	0.62
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%	0.40
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%	0.41
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%	0.47
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%	0.37
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%	0.44
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%	0.43
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%	0.50
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%	0.45
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%	0.41
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%	0.44
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%	0.48
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%	0.52
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%	0.53
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%	0.55
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%	0.45
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%	0.59
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%	0.50
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%	0.48
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%	0.49
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%	0.32
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%	0.56
2001	3.85%	1.37%	1148.09	38.85	15.74	-30.79%	-3.24%	1.80%	5.05%	3.25%	3.56%	1.73%	10.30%	3.62%	0.72
2002	5.23%	1.83%	879.82	46.04	16.08	18.51%	2.15%	1.20%	3.81%	2.61%	3.57%	2.29%	8.00%	4.10%	1.08
2003	4.87%	1.61%	1111.91	54.69	17.88	18.79%	11.19%	1.00%	4.25%	3.25%	5.35%	2.12%	11.00%	3.69%	0.87
2004	5.58%	1.60%	1211.92	67.68	19.407	23.75%	8.54%	2.18%	4.22%	2.04%	4.90%	2.02%	8.50%	3.65%	0.86
2005	5.47%	1.79%	1248.29	76.45	22.38	12.96%	15.32%	4.31%	4.39%	0.08%	6.16%	2.20%	8.00%	4.08%	0.93
2006	6.18%	1.77%	1418.3	87.72	25.05	14.74%	11.93%	4.88%	4.70%	-0.18%	5.93%	1.97%	12.50%	4.16%	0.89
2007	5.62%	1.89%	1468.36	82.54	27.73	-5.91%	10.70%	3.31%	4.02%	0.71%	5.03%	2.06%	5.00%	4.37%	1.09
2008	7.24%	3.11%	903.25	65.39	28.05	-20.78%	1.15%	1.59%	2.21%	0.62%	2.11%	4.05%	4.00%	6.43%	2.91
2009	5.35%	2.00%	1115.10	59.65	22.31	-8.78%	-20.46%	0.14%	3.84%	3.70%	0.28%	2.60%	7.20%	4.36%	1.14
2010	6.65%	1.84%	1257.64	83.66	23.12	40.25%	3.63%	0.13%	3.29%	3.16%	3.33%	2.24%	6.95%	5.20%	1.58
2011	7.72%	2.07%	1257.60	97.05	26.02	16.01%	12.54%	0.03%	1.88%	1.85%	2.75%	2.71%	7.18%	6.01%	3.20
2012	7.18%	2.13%	1426.19	102.47	30.44	5.58%	16.99%	0.05%	1.76%	1.71%	2.93%	2.47%	5.27%	5.78%	3.28
2013	5.81%	1.96%	1848.36	107.45	36.28	4.86%	19.19%	0.07%	3.04%	2.97%	5.01%	2.03%	4.28%	4.96%	1.63
2014	5.57%	1.87%	2058.90	114.74	38.57	6.78%	6.31%	0.05%	2.17%	2.12%	2.55%	2.24%	5.58%	5.78%	2.66
2015	5.20%	2.11%	2043.94	106.32	43.16	-5.92%	9.43%	0.21%	2.27%	2.06%	2.96%	2.46%	5.55%	6.12%	2.7
2016	4.86%	2.01%	2238.83	108.86	45.03	2.39%	4.33%	0.51%	2.45%	1.94%	2.64%	2.41%	5.54%	5.69%	2.32