

# **COST OF CAPITAL STUDY**

#### YIELD CAPITALIZATION

**2018 ASSESSMENT YEAR** 

APPENDIX C

## **FREIGHT AIRLINES**

EQUITY RATE							9.25%	
CAPITAL ASSET PRICING MODEL								PAGE
CAPM Ex Ante			7.50%					6
DIVIDEND GROWTH MODELS								
Value Line, based on Dividends	Growth		7.00%					7
Value Line, based on Earnings	Growth		9.00%					8
Value Line, based on Return or	n Equity		9.50%					9
					RANGE		7% - 9.5%	
DEBT RATE							4.00%	10
	SE) RATE						4.00% 3.75%	10
DEBT RATE COST OF SECURED DEBT (LEAS MARKET CAPITAL STRUCTURE	SE) RATE				Tax Shield			
COST OF SECURED DEBT (LEAS	<b>5E) RATE</b> 70%	X	9.25%		Tax Shield			
COST OF SECURED DEBT (LEAS		x	9.25% 3.75%				3.75%	10
COST OF SECURED DEBT (LEAS MARKET CAPITAL STRUCTURE Equity	70%			=	76.00%	=	<b>3.75%</b> 6.48%	10

### WEIGHTED AVERAGE COST OF CAPITAL

7.36%

#### FREIGHT AIRLINES

WASHINGTON STATE DEPARTMENT OF REVENUE

2018 ASSESSMENT YEAR

FREIGHT AIRLINES

														Capital	Structure at Book Value	
Company	Ticker	Beta	Fin'l Strength			Earnings Predict	P/E Ratio	Div'd Yield	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity	%
UPS	UPS	0.85	А	100	80	75	16.5	3.05%	1,034,077,636	4.9%	-	0.0%	20,278,000,000	95.1%	21,312,077,636	100.0%
Fed Ex	FDX	1.10	A++	80	65	60	18.5	0.84%	16,051,946,210	51.8%	-	0.0%	14,909,000,000	48.2%	30,960,946,210	100.0%
Atlas Air	AAWW	1.30	B+	20	25	55	12.2	-	1,567,552,200	43.8%	-	0.0%	2,008,986,000	56.2%	3,576,538,200	100.0%
CH Robinson	CHRW	0.85	A	75	40	75	19.8	2.29%	1,421,934,040	65.5%	-	0.0%	750,000,000	34.5%	2,171,934,040	100.0%
Expeditors Int'l	EXPD	0.95	A+	70	25	80	22.7	1.36%	2,132,434,200	100.0%	-	0.0%	-	-	2,132,434,200	100.0%
Air Transport Services	ATSG	1.35	В	20	55	20	-	-	329,906,340	37.4%	-	0.0%	552,000,000	62.6%	881,906,340	100.0%
	Mean	1.07	B+	61	48	61	17.9	1.89%	3,756,308,438	50.6%		0.0%	6,416,331,000	59.3%		
Weighted	d Mean								22,537,850,625	36.9%	-	0.00%	38,497,986,000	63.1%	61,035,836,625	
_	Median	1.03					18.5	1.83%		47.8%		0.0%		56.2%		
Harmon	ic Mean	1.03						1.49%		20.0%		0.0%		53.18%		
	Max	1.35						3.05%		100.0%		0.0%		95.1%		
	Min	0.85						0.84%		4.9%		0.0%		34.5%		
	Say	1.00								45%		0.0%		55%	100%	100%

#### SUPPORT FOR CAPITAL STRUCTURE MARKET VALUE

WASHINGTON STATE DEPARTMENT OF REVENUE 2018 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	119.15	861,731,363	102,675,291,901	74.6%	-	0.0%	9,743,241,192	7.1%	25,206,000,000	18.3%	137,624,533,093
Fed Ex	FDX	249.54	267,889,623	66,849,176,523	60.0%	-	0.0%	29,112,555,801	26.1%	15,500,000,000	13.9%	111,461,732,325
Atlas Air	AAWW	58.65	25,283,100	1,482,853,815	24.6%	-	0.0%	1,971,370,148	32.7%	2,575,046,000	42.7%	6,029,269,963
CH Robinson	CHRW	89.09	139,405,298	12,419,617,999	93.7%	-	0.0%	337,036,422	2.5%	500,000,000	3.8%	13,256,654,421
Expeditors Int'l	EXPD	64.69	177,702,850	11,495,597,367	93.7%	-	0.0%	771,332,642	6.3%	-	-	12,266,930,009
Air Transport Services Group	ATSG	23.14	59,123,000	1,368,106,220	68.0%	-	0.0%	118,068,005	5.9%	524,900,000	26.1%	2,011,074,225
			Mean		69.1%		0.0%		13.4%		21.0%	
1			Weighted Mean	196,290,643,825	69.4%	-	0.00%	42,053,604,210	14.88%	44,305,946,000	15.7%	282,650,194,035
1			Median		71.3%		0.00%		6.68%	1	18.3%	
1			Harmonic Mean		56.2%			'	6.4%	1	11.0%	
1			Max		93.7%		0.0%		32.7%	1	42.7%	
			Min		24.6%		0.0%		2.5%		3.8%	
Source:			Target		<b>70</b> %		0%		15%		15%	100%

Stock Price: Yahoo

Market Value Debt: Bond Analysis

## SUPPORT FOR MARKET MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE 2018 ASSESSMENT YEAR

FREIGHT AIRLINES

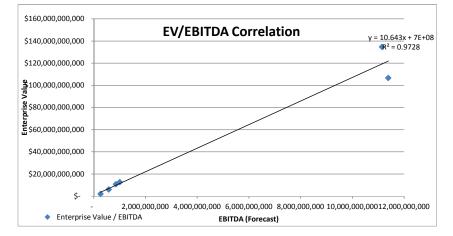
Company	Ticker	Stock Price	Revenues	Multiple	Cash Flow	Multiple	Earnings	Multiple	Book Value	Multiple
UPS	UPS	119.15	75.70	1.6	8.65	13.8	6.01	19.8	1.20	99.3
Fed Ex	FDX	249.54	224.86	1.1	23.58	10.6	12.30	20.3	59.92	4.2
Atlas Air	AAWW	58.65	84.80	0.7	8.10	7.2	1.50	NMF	62.00	0.95
CH Robinson	CHRW	89.09	106.20	0.8	4.25	21.0	3.57	25.0	10.20	8.73
Expeditors Int'l	EXPD	64.69	38.85	1.7	2.80	23.1	2.40	27.0	12.00	5.39
Air Transport Services G	ATSG	23.14	12.93	1.79	2.76	8.4	0.33	70.1	5.58	4.1
		Mean Median		1.3 1.3		14.0 12.2		32.4 25.0		20.4 4.8
	Harm	nonic Mean		1.1		11.6		26.2		3.2
		Max Min Std Dev		1.8 0.69 0.46		23.1 7.2 6.64		70.1 19.8 21.29		99.3 0.95 38.71
Co	efficient o	f Variation		0.36		0.47		0.66		1.89
	Per	centile .25		0.9		8.9		20.3		4.2
	Per	centile .75		1.6		19.2		27.0		7.9
		Say		1.1		12.0		25.0		NMF

#### **ENTERPRISE VALUE MULTIPLES**

WASHINGTON STATE DEPARTMENT OF REVENUE 2018 ASSESSMENT YEAR FREIGHT 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				
UPS	UPS	\$ 134,784,533,09	3 10,615,000,000	12.70	5.0%	11,145,750,000	12.09	70,004,000,000	1.93	7,453,976,290	1,008,240,000	15.93
Fed Ex	FDX	\$ 106,751,732,32	5 10,846,000,000	9.84	5.00%	11,388,300,000	9.37	64,494,200,000	1.66	6,316,837,310	620,000,000	15.39
Atlas Air	AAWW	\$ 6,029,269,96	551,945,000	10.92	5.00%	579,542,250	10.40	2,340,000,000	2.58	204,793,110	103,001,840	19.59
CH Robinson	CHRW	\$ 12,733,103,42	928,861,000	13.71	8.50%	1,007,814,185	12.63	15,748,700,000	0.81	592,472,517	20,000,000	20.79
Expeditors Int'l	EXPD	\$ 10,768,930,00	817,920,000	13.17	5.00%	858,816,000	12.54	7,579,026,553	1.42	497,567,980	-	21.64
Air Transport Services Group	ATSG	\$ 2,011,074,22	261,359,000	7.69	0.00%	261,359,000	7.69	-		163,179,480	20,996,000	10.92
	Mean			11.34	4.75%		10.79		1.68			17.38
	Median			11.81	5.00%		11.25		1.66			17.76
Harme	onic Mean			10.89	#NUM!		10.45		1.45			16.45
	Max			13.71	8.50%		12.63		2.58			21.64
	Min			7.69	0.00%		7.69		0.81			10.92
	Std Dev			2.30	2.72%		1.99		0.65			4.06
Coefficient of	Variation			0.20	0.57		0.18		0.39			0.23
	Say			11.00	5.00%		11.00		1.50			16.00

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



#### Forecast EV/EBITDA By Rank

Guideline Companies	forecast	
Air Transport Services Group	7.69	9.16 Low Average
Fed Ex	9.37	9.4 Low Median
Atlas Air	10.40	9.4 Say
UPS	12.09	12.42 High Average
Expeditors Int'l	12.54	12.5 High Median
CH Robinson	12.63	12.0 Say

# SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT CAPITAL ASSET PRICING MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE 2018 ASSESSMENT YEAR FREIGHT AIRLINES

#### Ex Ante

#### $Ke = Rf + \beta (Rp)$

	Cost of Equity						7.50%
							to page
		Rm =	rate of return	7.50%			
		Rf =	risk free rate	2.75%			
		Rp = B =	risk premium	4.75%			
		в =	Beta	1.00			page
p =	<b>Risk Premium</b>						4.75%
							to abov
	Shannon Pratt a	-			3.50% - 6.00%		
				and Examples, Fifth			
	Dr. Aswath Dan	Edition, 20	)14		5.08%		
	Dr. Aswath Dan		ges.stern.nyu.ed	u/wadamodar/	<b>4.73%</b>	chart page 14 adjusted for Rf	
			lied Premium	<u>u/uuumouur/</u>	4170 /0		
	John Graham ai		magazine Global E	Rusiness Outlook	7.16%	10 year expected real retu	rn
		4th Qtr 20	-	business Outlook	2.37% <b>6.78%</b>	Rf rate used in survey adjusted for Rf	
lf =	Risk Free Rate	e					2.75%
							to above
		estment Su	rvey, Selected Yi	elds January 5, 201	.8, page 2573		
	as of 12-27-17	UC T	G				
		US Treasu	ry Securities year	5 vear	2.19	0/2	
				10 year	2.19		
				30 year	2.75		
				30 year Zero	2.87	%	
		Treasury (	Constant Maturities	5 year	2.20%	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
		Treasury (	Constant Maturities	5 year 10 year 20 year 30 year 20 year TIPS	2.20% 2.40% 2.58% 2.74% 0.61%	1.97%	
		Treasury (	Constant Maturities	5 year 10 year 20 year 30 year	2.20% 2.40% 2.58% 2.74%	1.97% 2.01%	
		Treasury (	Constant Maturities	5 year 10 year 20 year 30 year 20 year TIPS	2.20% 2.40% 2.58% 2.74% 0.61%	1.97%	ation
nflat	tion	Treasury (	Constant Maturities	5 year 10 year 20 year 30 year 20 year TIPS	2.20% 2.40% 2.58% 2.74% 0.61%	1.97% 2.01%	
nflat				5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u>	1.97% 2.01% TIPS inflation indic	2.00%
nflat		estment Su	rvey, Economic S	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> 18, page 1500	1.97% 2.01% TIPS inflation indic to apprais	2.00%
nflat		estment Su	rvey, Economic S	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> 18, page 1500	1.97% 2.01% TIPS inflation indic	2.00%
Inflat		estment Su Consumer	<b>rvey, Economic S</b> Price Index Annua	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> 18, page 1500	1.97% 2.01% TIPS inflation indic to apprais	2.00%
înflat	Value Line Inve	estment Su Consumer e Bank of P	<b>rvey, Economic S</b> Price Index Annua <b>'hiladelphia</b>	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> 18, page 1500	1.97% 2.01% TIPS inflation indic to apprais	2.00%
înflat	Value Line Inve	estment Su Consumer e Bank of P The Livin	rvey, Economic S Price Index Annua Philadelphia gston Survey, De	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS eries January 5, 20	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> <b>18, page 1500</b> 9-2021	1.97% 2.01% TIPS inflation indic to apprais 2.50%	2.00%
inflat	Value Line Inve	estment Su Consumer e Bank of P The Livin Inflation n	rvey, Economic S Price Index Annua Philadelphia gston Survey, De nedian (measured	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS <b>Feries January 5, 20</b> al Rate of Change 201 ecember 15, 2017	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> <b>18, page 1500</b> 9-2021	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34%	ation 2.00% sal template
	Value Line Inve Federal Reserve	estment Su Consumer e Bank of P The Livin Inflation n https://www	rvey, Economic S Price Index Annua Philadelphia gston Survey, De nedian (measured w.philadelphiafed.org	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS eries January 5, 20 al Rate of Change 201 ecember 15, 2017 by the CPI) over next	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> <b>18, page 1500</b> 9-2021	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34%	2.00%
	Value Line Inve	estment Su Consumer e Bank of P The Livin Inflation n https://www	rvey, Economic S Price Index Annua Philadelphia gston Survey, De nedian (measured w.philadelphiafed.org	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS eries January 5, 20 al Rate of Change 201 ecember 15, 2017 by the CPI) over next	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> <b>18, page 1500</b> 9-2021	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34%	2.00%
	Value Line Inve Federal Reserve 5 Domestic Prod	estment Su Consumer e Bank of P The Livin Inflation n https://ww duct (GDP e Projected	rvey, Economic S Price Index Annua Philadelphia gston Survey, De nedian (measured w.philadelphiafed.org, ) I Long Run Real (	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS <b>Peries January 5, 20</b> al Rate of Change 201 ecember 15, 2017 by the CPI) over next /research-and-data/real	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> <b>18, page 1500</b> 9-2021 : 10 years -time-center/livingston	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34% -survey	2.00%
	Value Line Inve Federal Reserve 5 Domestic Prod	estment Su Consumer e Bank of P The Livin Inflation n https://www duct (GDP e Projected Median Pr	rvey, Economic S Price Index Annua Philadelphia gston Survey, De nedian (measured w.philadelphiafed.org, ) I Long Run Real C ojection Value Fror	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS <b>Feries January 5, 20</b> al Rate of Change 201 Exember 15, 2017 by the CPI) over next (research-and-data/real <b>SDP Growth</b> n Dec 13, 2017 Repo	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> <b>18, page 1500</b> 9-2021 : 10 years -time-center/livingston	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34%	2.00%
	Value Line Inve Federal Reserve 5 Domestic Prod	estment Su Consumer e Bank of P The Livin Inflation n https://www duct (GDP e Projected Median Pr	rvey, Economic S Price Index Annua Philadelphia gston Survey, De nedian (measured w.philadelphiafed.org, ) I Long Run Real C ojection Value Fror	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS <b>Peries January 5, 20</b> al Rate of Change 201 ecember 15, 2017 by the CPI) over next /research-and-data/real	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> <b>18, page 1500</b> 9-2021 : 10 years -time-center/livingston	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34% -survey	2.00%
	Value Line Inve Federal Reserve 5 Domestic Prod Federal Reserve	estment Su Consumer The Livin Inflation n https://www duct (GDP, Median Pr http://www	rvey, Economic S Price Index Annua gston Survey, De nedian (measured w.philadelphiafed.org, ) I Long Run Real C ojection Value Fror .federalreserve.gov/r	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b> <b>TIPS</b>	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> <b>18, page 1500</b> 9-2021 : 10 years -time-center/livingston	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34% -survey	2.00% sal templat
	Value Line Inve Federal Reserve 5 Domestic Prod Federal Reserve	estment Su Consumer The Livin Inflation n https://ww duct (GDP e Projected Median Pr http://www Budget Offi	rvey, Economic S Price Index Annua gston Survey, De nedian (measured w.philadelphiafed.org, ) I Long Run Real C ojection Value Fror .federalreserve.gov/r	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS 30 year TIPS eries January 5, 20 I Rate of Change 201 ecember 15, 2017 by the CPI) over next /research-and-data/real SDP Growth n Dec 13, 2017 Repo monetarypolicy/fomccale nomic Projections	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> <b>18, page 1500</b> 9-2021 : 10 years -time-center/livingston	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34% -survey	2.00% sal templat
	Value Line Inve Federal Reserve 5 Domestic Prod Federal Reserve	estment Su Consumer e Bank of P The Livin Inflation n https://www duct (GDP e Projected Median Pr http://www Budget Offi The Budget Average Pe	rvey, Economic S Price Index Annua Iniladelphia gston Survey, De nedian (measured w.philadelphiafed.org, ) I Long Run Real C ojection Value Fron .federalreserve.gov/r ce Real GDP Ecor and Economic Outloo rcentage Change Fron	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS <b>eries January 5, 20</b> al Rate of Change 201 ecember 15, 2017 by the CPI) over next /research-and-data/real <b>GDP Growth</b> n Dec 13, 2017 Repo nonetarypolicy/fomccale <b>nomic Projections</b> bk 2018-2028 m Year To Year	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> <u>0.73%</u> <b>18, page 1500</b> 9-2021 : 10 years -time-center/livingston	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34% -survey 1.80%	2.00% sal templat
	Value Line Inve Federal Reserve 5 Domestic Prod Federal Reserve	estment Su Consumer e Bank of P The Livin Inflation n https://www duct (GDP e Projected Median Pr http://www Budget Offi The Budget Average Pe	rvey, Economic S Price Index Annua Philadelphia gston Survey, De nedian (measured w.philadelphiafed.org, ) I Long Run Real C ojection Value Fror .federalreserve.gov/r ce Real GDP Ecor and Economic Outloo	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS <b>eries January 5, 20</b> al Rate of Change 201 ecember 15, 2017 by the CPI) over next /research-and-data/real <b>GDP Growth</b> n Dec 13, 2017 Repo nonetarypolicy/fomccale <b>nomic Projections</b> bk 2018-2028 m Year To Year	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> 0.73% <b>18, page 1500</b> 9-2021 : 10 years -time-center/livingston	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34% -survey 1.80% Table D-1, pg	2.00% sal templat
	Value Line Inve Federal Reserve 5 Domestic Prod Federal Reserve	estment Su Consumer e Bank of P The Livin Inflation n https://www duct (GDP e Projected Median Pr http://www Budget Offi The Budget Average Pe	rvey, Economic S Price Index Annua Iniladelphia gston Survey, De nedian (measured w.philadelphiafed.org, ) I Long Run Real C ojection Value Fron .federalreserve.gov/r ce Real GDP Ecor and Economic Outloo rcentage Change Fron	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS <b>eries January 5, 20</b> al Rate of Change 201 ecember 15, 2017 by the CPI) over next /research-and-data/real <b>GDP Growth</b> n Dec 13, 2017 Repo nonetarypolicy/fomccale <b>nomic Projections</b> bk 2018-2028 m Year To Year	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> 0.73% <b>18, page 1500</b> 9-2021 : 10 years 	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34% -survey 1.80% Table D-1, pg 2.18%	2.00% sal templat
	Value Line Inve Federal Reserve 5 Domestic Prod Federal Reserve	estment Su Consumer e Bank of P The Livin Inflation n https://www duct (GDP e Projected Median Pr http://www Budget Offi The Budget Average Pe http://ww	rvey, Economic S Price Index Annua Philadelphia gston Survey, De nedian (measured w.philadelphiafed.org, ) I Long Run Real Co ojection Value Fror .federalreserve.gov/r ce Real GDP Ecor and Economic Outloo rcentage Change Fror ww.cbo.gov/publi	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS <b>eries January 5, 20</b> al Rate of Change 201 ecember 15, 2017 by the CPI) over next /research-and-data/real <b>GDP Growth</b> n Dec 13, 2017 Repo nonetarypolicy/fomccale <b>nomic Projections</b> bk 2018-2028 m Year To Year	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> 0.73% <b>18, page 1500</b> 9-2021 : 10 years 	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34% -survey 1.80% Table D-1, pg 2.18%	2.00% sal templat
	Value Line Inve Federal Reserve 5 Domestic Prod Federal Reserve Congressional E	estment Su Consumer The Livin Inflation n https://ww duct (GDP Median Pr http://www Budget Offi The Budget Average Pe http://ww Budget Offi The Budget Average Pe http://ww	rvey, Economic S Price Index Annua gston Survey, Den nedian (measured w.philadelphiafed.org, ) I Long Run Real C ojection Value Fror .federalreserve.gov/r ce Real GDP Ecor and Economic Outloo rcentage Change Fror ww.cbo.gov/publi ston Survey, Dece	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS eries January 5, 20 I Rate of Change 201 ecember 15, 2017 by the CPI) over next /research-and-data/real <b>SDP Growth</b> n Dec 13, 2017 Repo nonetarypolicy/fomccale <b>nomic Projections</b> sk 2018-2028 m Year To Year cation/53651 mber 15, 2017	2.20% 2.40% 2.58% 2.74% 0.61% 0.73% 18, page 1500 9-2021 : 10 years -time-center/livingston rt endars.htm 2018-2022 2023-2028	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34% -survey 1.80% Table D-1, pg 2.18%	2.00% sal templat
	Value Line Inve Federal Reserve 5 Domestic Prod Federal Reserve Congressional E	estment Su Consumer e Bank of P The Livin Inflation n https://www duct (GDP e Projected Median Pr http://www Budget Offi The Budget Average Pe http://ww e Bank of P The Living Average A	rvey, Economic S Price Index Annua thiladelphia gston Survey, Denedian (measured w.philadelphiafed.org, ) I Long Run Real C ojection Value Fror .federalreserve.gov/r ce Real GDP Ecor and Economic Outloo rcentage Change Fror ww.cbo.gov/publi thiladelphia iston Survey, Dece .nnual Real GDP Gr	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS 30 year TIPS 4 reries January 5, 20 al Rate of Change 201 4 cember 15, 2017 by the CPI) over next /research-and-data/real 5 DP Growth n Dec 13, 2017 Repo nonetarypolicy/fomccale nomic Projections bk 2018-2028 n Year To Year cation/53651 mber 15, 2017 rowth Rate for Next To	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> 0.73% <b>18, page 1500</b> 9-2021 <b>10</b> years -time-center/livingston -time-center/livingston rt endars.htm 2018-2022 2023-2028 en Years	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34% -survey 1.80% Table D-1, pg 2.18% 1.73% pg 4 2.18%	2.00% sal templat
iross	Value Line Inve Federal Reserve 5 Domestic Prod Federal Reserve Congressional E	estment Su Consumer e Bank of P The Livin Inflation n https://www duct (GDP e Projected Median Pr http://www Budget Offi The Budget Average Pe http://ww e Bank of P The Living Average A	rvey, Economic S Price Index Annua thiladelphia gston Survey, Denedian (measured w.philadelphiafed.org, ) I Long Run Real C ojection Value Fror .federalreserve.gov/r ce Real GDP Ecor and Economic Outloo rcentage Change Fror ww.cbo.gov/publi thiladelphia iston Survey, Dece .nnual Real GDP Gr	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS eries January 5, 20 I Rate of Change 201 ecember 15, 2017 by the CPI) over next /research-and-data/real <b>SDP Growth</b> n Dec 13, 2017 Repo nonetarypolicy/fomccale <b>nomic Projections</b> sk 2018-2028 m Year To Year cation/53651 mber 15, 2017	2.20% 2.40% 2.58% 2.74% <u>0.61%</u> 0.73% <b>18, page 1500</b> 9-2021 <b>10</b> years -time-center/livingston -time-center/livingston rt endars.htm 2018-2022 2023-2028 en Years	1.97% 2.01% TIPS inflation indic to apprais 2.50% Table 3 2.34% -survey 1.80% Table D-1, pg 2.18% 1.73% pg 4 2.18%	2.00% sal templat

2018 AY Final Cost of Capital - Freight Airlines.xlsx

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

WASHINGTON STATE DEPARTMENT OF REVENUE

2018 ASSESSMENT YEAR

FREIGHT AIRLINES

#### **Based on Dividend Growth**

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

Cost of Equity Ke =

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)	K <sub>e</sub>	Forecast Dividend Growth	K <sub>e</sub> Forecast Growth	Sustainable Dividend Growth	K <sub>e</sub> Sustainable Growth	Ke with Multi Stage Growth Adj
UPS	UPS	119.15	3.64	3.05%	9.64%	12.69%	7.15%	10.20%	3.80%	6.85%	7.43%
Fed Ex	FDX	249.54	2.10	0.84%	31.25%	32.09%	18.54%	19.38%	3.80%	4.64%	9.40%
Atlas Air	AAWW	58.65	0.00						3.80%		
CH Robinson	CHRW	89.09	2.04	2.29%	12.71%	15.00%	6.60%	8.89%	3.80%	6.09%	6.21%
Expeditors Int'l	EXPD	64.69	0.88	1.36%	4.76%	6.12%	7.48%	8.84%	3.80%	5.16%	5.86%
Air Transport Services Group	ATSG	23.14	0.00						3.80%		
			Mean	1.89%		16.48%		11.83%		5.69%	7.23%
			Median	1.83%		13.85%		9.55%		5.63%	6.82%
		Hai	monic Mean	1.49%		11.77%		10.66%		5.56%	6.99%
			Max	3.05%		32.09%		19.38%		6.85%	9.40%
			Min	0.84%		6.12%		8.84%		4.64%	5.86%

Source: Value Line Projections 17-18 to 21-23

Say 7.00%

to page 1

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

WASHINGTON STATE DEPARTMENT OF REVENUE

2018 ASSESSMENT YEAR

FREIGHT AIRLINES

**Based on Earnings Growth** 

 $K_{e} = (D_{1} / P_{o}) + G$ 

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)	K <sub>e</sub>	Forecast Earnings Growth	K <sub>e</sub> Forecast Growth	Sustainable Earnings Growth	K <sub>e</sub> Sustainable Growth	Ke with Multi Stage Growth Adj	Ke Multi Stage FCFE
UPS	UPS	119.15	7.20	6.04%	19.80%	25.84%	9.09%	15.13%	3.80%	9.84%	8.56%	NMF
Fed Ex	FDX	249.54	13.50	5.41%	9.76%	15.17%	14.71%	20.12%	3.80%	9.21%	8.14%	10.91%
Atlas Air	AAWW	58.65	4.80	8.18%	NMF	NMF	13.00%	21.18%	3.80%	11.98%	6.73%	13.70%
CH Robinson	CHRW	89.09	4.50	5.05%	26.05%	31.10%	7.03%	12.08%	3.80%	8.85%	6.41%	10.30%
Expeditors Int'l	EXPD	64.69	2.85	4.41%	18.75%	23.16%	8.62%	13.02%	3.80%	8.21%	6.35%	8.30%
Air Transport Services Group	ATSG	23.14	0.00						3.80%			NMF
			Mean	5.82%		23.82%		16.31%		9.62%	7.24%	10.80%
			Median	5.41%		24.50%		15.13%		9.21%	6.73%	10.61%
		Har	monic Mean	5.57%		22.23%		15.50%		9.46%	7.13%	10.47%
			Max	8.18%		31.10%		21.18%		11.98%	8.56%	13.70%
			Min	4.41%		15.17%		12.08%		8.21%	6.35%	8.30%

Source: Value Line Projections 17-18 to 21-23

Say 9.00% to page 1

## SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2018 ASSESSMENT YEAR

FREIGHT AIRLINES

#### **Based on Return on Equity**

- Ke = (D1 / Po) + G
- Ke =Cost of EquityD1 =Expected DividendsE1 =Expected EarningsPo =Current PriceG =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)	K <sub>e</sub> Dividends	K <sub>e</sub> Earnings
UPS	UPS	119.15	3.64	7.20	3.05%	49.0%	6.04%	2.96%	6.02%	9.00%
Fed Ex	FDX	249.54	2.10	13.50	0.84%	84.0%	5.41%	4.54%	5.39%	9.95%
Atlas Air	AAWW	58.65	0.00	4.80		100.0%	8.18%	8.18%		16.37%
CH Robinson	CHRW	89.09	2.04	4.50	2.29%	55.0%	5.05%	2.78%	5.07%	7.83%
Expeditors Int'l	EXPD	64.69	0.88	2.85	1.36%	69.0%	4.41%	3.04%	4.40%	7.45%
Air Transport Services Grou	ATSG	23.14	0.00	0.00		100.0%	0.00%	0.00%		
								Mean	5.22%	10.12%
								Median	5.23%	9.00%
							Har	monic Mean	5.15%	9.35%
								Мах	6.02%	16.37%
								Min	4.40%	7.45%

Say



## SUPPORT FOR DEBT RATING AND DEBT YIELD RATE

WASHINGTON STATE DEPARTMENT OF REVENUE 2018 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	-	-
<b>Overall Average Debt Rating</b>		A2	A-

Mergent's Bond Record Janua	ry 2018, pag	ge 249		
Corporate	Aaa	Aa	A	Baa
October	3.60%	3.75%	3.91%	4.32%
November				
	3.57%	3.67%	3.84%	4.27%
December	3.51%	3.61%	3.79%	4.22%
4th Qtr Average	3.56%	3.68%	3.85%	4.27%
Public Utilities		Aa	Α	Baa
October		3.74%	3.91%	4.26%
November		3.65%	3.83%	4.16%
December		3.62%	3.79%	4.14%
4th Qtr Average		3.67%	3.84%	4.19%
Industrials	Aaa	Aa	Α	Baa
October	3.60%	3.74%	3.90%	4.37%
November	3.57%	3.68%	3.85%	4.37%
December	3.51%	3.60%	3.79%	4.31%
4th Qtr Average	3.56%	3.67%	3.85%	4.35%

Debt Yield Rate		4.00%
Cost of Secured Debt (Lease)	Based on 4th Quarter Aa rate	3.75%

to page 1

Washington State Department of Revenue

# DATA INPUT

WASHINGTON STATE DEPARTMENT OF REVENUE

### 2018 ASSESSMENT YEAR

FREIGHT AIRLINES

								Historic Figur	es (2017)			
Guideline Companies		Stock Price 12/31/2017	Beta levered	Revenues Per Share	Cash Flow Per Share	Earnings Per Share	Dividends Per Share	Bk Value Per Share	Common Shares	Trailing P/E Ratio	Operating Margin	Income Tax Rate
Name	Ticker	Yahoo	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL
UPS	UPS	119.15	0.85	75.70	8.65	6.01	3.32	1.20	861,731,363	17.9	16.0%	33.8%
Fed Ex	FDX	249.54	1.10	224.86	23.58	12.30	1.60	59.92	267,889,623	19.6	13.9%	33.6%
Atlas Air	AAWW	58.65	1.30	84.80	8.10	1.50	-	62.00	25,283,100	51.9	16.0%	34.0%
CH Robinson	CHRW	89.09	0.85	106.20	4.25	3.57	1.81	10.20	139,405,298	26.0	5.8%	31.0%
Expeditors Int'l	EXPD	64.69	0.95	38.85	2.80	2.40	0.84	12.00	177,702,850	26.5	12.0%	37.0%
Air Transport Services Group	ATSG	23.14	1.35	12.93	2.76	0.33	-	5.58	59,123,000	-	34.4%	38.9%

WASHINGTON STATE DEPARTMENT OF REVENUE

#### 2018 ASSESSMENT YEAR

FREIGHT AIRLINES

						Projected (N	lext Year) 2018					Di
Guideline Companies	Return on Shareholder Equity	Revenues Per Share	Cash Flow Per Share		Dividends Per Share	Bk Value Per Share	Common Shares	Capital Spending per share	Return on Shareholder Equity	All Dividends to Net Profits	2019	2020
Name	V L	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL
UPS	NMF	81.40	10.15	7.20	3.64	4.05	860,000,000	7.85	NMF	51.0%	7.5	7.0
Fed Ex	20.7%	240.65	25.15	13.50	2.10	69.00	268,000,000	20.00	20.0%	16.0%	11.5	12.5
Atlas Air	2.5%	93.60	12.40	4.80	-	64.00	25,000,000	3.50	7.5%	0.0%	0.0	0.0
CH Robinson	35.5%	113.30	5.25	4.50	2.04	11.35	139,000,000	0.60	40.0%	45.0%	7.5	6.0
Expeditors Int'l	20.5%	42.65	3.30	2.85	0.88	13.75	177,702,850	0.45	22.0%	31.0%	8.5	9.0
Air Transport Services Group	6.3%										0.0	0.0

WASHINGTON STATE DEPARTMENT OF REVENUE

#### 2018 ASSESSMENT YEAR

#### FREIGHT AIRLINES

		Longer Term Forecasts																		
	vidends	nds % Change Earnings % Change							Ca	sh Flow	% Chan	ge		Revenue % Chang						
Guideline Companies	2021	2022	2023	2024	2019	2020	2021	2022	2023	2024	2019	2020	2021	2022	2023	2024	2019	2020	2021	2022
Name	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL
UPS	8.5	7.5	6.5	0.0	7.5	10.0	9.5	10.0	8.5	0.0	6.0	7.5	8.0	7.5	0.0	0.0	5.0	5.0	5.5	6.0
Fed Ex	20.5	21.0	15.5	0.0	15.0	15.5	13.5	12.5	11.0	0.0	9.0	8.0	9.5	11.0	9.5	0.0	5.0	4.0	7.5	9.0
Atlas Air	0.0	0.0	0.0	0.0	0.1	3.5	15.5	23.0	21.0	0.0	4.5	6.5	10.0	15.0	14.5	0.0	5.0	6.5	5.5	8.0
CH Robinson	7.0	6.5	7.5	0.0	7.0	6.5	7.5	6.0	9.5	0.0	8.0	7.5	7.0	6.5	9.5	0.0	8.5	9.0	5.0	4.5
Expeditors Int'l	7.5	7.5	6.0	0.0	6.5	10.0	10.0	8.0	9.0	0.0	6.5	9.5	9.0	7.0	9.5	0.0	5.0	8.0	6.0	5.5
Air Transport Services Group	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

WASHINGTON STATE DEPARTMENT OF REVENUE

#### 2018 ASSESSMENT YEAR

FREIGHT AIRLINES

	e				Income Statement			Balance Sheet		
Guideline Companies	2023	2024	Earnings Per Share	Return on Shareholder Equity	Operating Income	Current Assets	PP & E Gross	Intangibles (excl. GW)	Current Liabilities	Long Term Debt Less Current Maturities
Name	VL	VL	VL	VL	<b>M</b> *	<b>M</b> *	<b>M</b> *	M*	M*	M*/10-K
UPS	5.0	0.0	9.30	NMF	7,529,000,000	15,548,000,000	48,726,000,000	1,964,000,000	12,708,000,000	20,278,000,000
Fed Ex	9.0	0.0	20.00	18.0%	5,037,000,000	12,628,000,000	50,626,000,000	-	7,918,000,000	14,909,000,000
Atlas Air	8.5	0.0	7.80	10.0%	242,000,000	588,000,000	4,704,000,000	66,000,000	739,000,000	2,008,986,000
CH Robinson	6.0	0.0	6.35	33.5%	775,000,000	2,511,000,000	498,000,000	152,000,000	1,987,449,000	750,000,000
Expeditors Int'l	6.5	0.0	4.10	23.0%	700,000,000	2,541,000,000	945,000,000	-	1,043,000,000	-
Air Transport Services Group	0.0	0.0	1.22		93,000,000	185,000,000	2,004,000,000	45,000,000	185,000,000	552,000,000

WASHINGTON STATE DEPARTMENT OF REVENUE

## 2018 ASSESSMENT YEAR

FREIGHT AIRLINES

	Cash Flow Statement		Other Fir	nancials	
Guideline Companies	Depreciation & Amortization	Carrying Value Debt	Fair Value Debt	Current Maturity Long Term Debt	Aircraft Rental Expense
Name	<b>M</b> *	10-K	10-K	10-K	10-К
UPS	2,282,000,000	24,289,000,000	25,206,000,000	4,011,000,000	804,000,000
Fed Ex	2,995,000,000	14,878,000,000	15,500,000,000	22,000,000	2,814,000,000
Atlas Air	167,000,000	2,323,217,000	2,575,046,000	218,013,000	142,945,000
CH Robinson	93,000,000	-	500,000,000	715,000,000	60,861,000
Expeditors Int'l	49,000,000	-	-		68,920,000
Air Transport Services Group	155,000,000	515,800,000	524,900,000	18,512,000	13,359,000

# 2018 Multi Stage Dividend Growth Model for DGM-d7 Freight Airline Industry

United Parcel Se	rvice								
UPS		Growth	Payout			Terminal			
	Year	Rate	Ratio	Earnings	Dividends	Value			
	0			6.01	3.32		(119.15)	price =	119.15
2017	1	7.50%	55.24%	6.46	3.57		3.57		128.09
2018	2	7.00%	55.24%	6.91	3.82		3.82		137.05
2019	3	8.50%	55.24%	7.50	4.14		4.14		148.70
2020	4	7.50%	55.24%	8.06	4.45		4.45		159.85
2021	5	6.50%	55.24%	8.59	4.74		4.74		170.24
2022	6	0.00%	51.61%	8.59	4.43		4.43		170.24
2023	7	0.76%	51.61%	8.65	4.47		4.47		171.54
2024	8	1.52%	51.61%	8.78	4.53		4.53		174.15
2025	9	2.28%	51.61%	8.98	4.64		4.64		178.12
2026	10	3.04%	51.61%	9.26	4.78	183.53	188.31		183.53
2027	11+	3.80%	51.61%	9.61	4.96				
						$K_e =$	7.43%		

source: Valueline

FedEx FDX			Growth	Payout			Terminal			
FDA				Payout						
		Year	Rate	Ratio	Earnings	Dividends	Value			
		0			12.30	1.60		(249.54)	price =	249.54
	2017	1	11.50%	13.01%	13.71	1.78		1.78		278.24
	2018	2	12.50%	13.01%	15.43	2.01		2.01		313.02
	2019	3	20.50%	13.01%	18.59	2.42		2.42		377.19
	2020	4	21.00%	13.01%	22.50	2.93		2.93		456.39
	2021	5	15.50%	13.01%	25.98	3.38		3.38		527.14
	2022	6	0.00%	13.50%	25.98	3.51		3.51		527.14
	2023	7	0.76%	13.50%	26.18	3.53		3.53		531.14
	2024	8	1.52%	13.50%	26.58	3.59		3.59		539.21
	2025	9	2.28%	13.50%	27.18	3.67		3.67		551.51
	2026	10	3.04%	13.50%	28.01	3.78	568.27	572.06		568.27
	2027	11+	3.80%	13.50%	29.08	3.93				
							$K_e =$	9.40%		

source: Valueline

## CH Robinson

CH Rodinson CHRW		Growth	Payout			Terminal			
	Year	Rate	, Ratio	Earnings	Dividends	Value			
	0			3.57	1.81		(89.09)	price =	89.09
2017	1	7.50%	50.70%	3.84	1.95		1.95		95.77
2018	2	6.00%	50.70%	4.07	2.06		2.06		101.52
2019	3	7.00%	50.70%	4.35	2.21		2.21		108.62
2020	4	6.50%	50.70%	4.64	2.35		2.35		115.68
2021	5	7.50%	50.70%	4.98	2.53		2.53		124.36
2022	6	0.00%	40.94%	4.98	2.04		2.04		124.36
2023	7	0.76%	40.94%	5.02	2.06		2.06		125.31
2024	8	1.52%	40.94%	5.10	2.09		2.09		127.21
2025	9	2.28%	40.94%	5.21	2.13		2.13		130.11
2026	10	3.04%	40.94%	5.37	2.20	134.07	136.27		134.07
2027	11+	3.80%	40.94%	5.58	2.28				

source: Valueline

Expeditors Int'l EXPD	Veer	Growth	Payout	Faminas	Dividende	Terminal			
	Year	Rate	Ratio	Earnings	Dividends	Value			
	0			2.40	0.84		(64.69)	price =	64.69
2017	1	8.50%	35.00%	2.60	0.91		0.91		70.19
2018	2	9.00%	35.00%	2.84	0.99		0.99		76.51
2019	3	7.50%	35.00%	3.05	1.07		1.07		82.24
2020	4	7.50%	35.00%	3.28	1.15		1.15		88.41
2021	5	6.00%	35.00%	3.48	1.22		1.22		93.72
2022	6	0.00%	26.83%	3.48	0.93		0.93		93.72
2023	7	0.76%	26.83%	3.50	0.94		0.94		94.43
2024	8	1.52%	26.83%	3.56	0.95		0.95		95.86
2025	9	2.28%	26.83%	3.64	0.98		0.98		98.05
2026	10	3.04%	26.83%	3.75	1.01	101.03	102.04		101.03
2027	11+	3.80%	26.83%	3.89	1.04				
						K <sub>e</sub> =	5.86%		

source: Valueline

 $K_{e} = 5.86\%$ 

# 2018 Multi Stage Dividend Growth Model for DGM-e8 Freight Airline Industry

United Parcel Se UPS	rvice	Growth	Payout			Terminal			
	Year	Rate	Ratio	Earnings	Dividends	Value			
	0			6.01	3.32		(119.15)	price =	119.15
2017	1	9.50%	55.24%	6.58	3.64		3.64		130.47
2018	2	10.00%	55.24%	7.24	4.00		4.00		143.52
2019	3	9.50%	55.24%	7.93	4.38		4.38		157.15
2020	4	10.00%	55.24%	8.72	4.82		4.82		172.87
2021	5	8.50%	55.24%	9.46	5.23		5.23		187.56
2022	6	0.00%	51.61%	9.46	4.88		4.88		187.56
2023	7	0.76%	51.61%	9.53	4.92		4.92		188.98
2024	8	1.52%	51.61%	9.68	4.99		4.99		191.86
2025	9	2.28%	51.61%	9.90	5.11		5.11		196.23
2026	10	3.04%	51.61%	10.20	5.26	202.20	207.46		202.20
2027	11+	3.80%	51.61%	10.59	5.46				
						K <sub>e</sub> =	8.56%		

source: Valueline

FedEx FDX			Growth	Payout			Terminal			
I DA				•						
		Year	Rate	Ratio	Earnings	Dividends	Value			
		0			12.30	1.60		(249.54)	price =	249.54
-	2017	1	15.00%	13.01%	14.15	1.84		1.84		286.97
2	2018	2	15.50%	13.01%	16.34	2.13		2.13		331.45
2	2019	3	13.50%	13.01%	18.54	2.41		2.41		376.20
2	2020	4	12.50%	13.01%	20.86	2.71		2.71		423.22
2	2021	5	11.00%	13.01%	23.16	3.01		3.01		469.78
2	2022	6	0.00%	13.50%	23.16	3.13		3.13		469.78
-	2023	7	0.76%	13.50%	23.33	3.15		3.15		473.35
-	2024	8	1.52%	13.50%	23.69	3.20		3.20		480.54
-	2025	9	2.28%	13.50%	24.23	3.27		3.27		491.50
2	2026	10	3.04%	13.50%	24.96	3.37	506.44	509.81		506.44
2	2027	11+	3.80%	13.50%	25.91	3.50				
							K <sub>e</sub> =	8.14%		

source: Valueline

#### Atlas Air

Allas All										
AAWW			Growth	Payout			Terminal			
		Year	Rate	Ratio	Earnings	Dividends	Value			
		0			1.50	-		(58.65)	price =	58.65
-	2017	1	0.05%	0.00%	1.50	0.00		0.00		58.68
-	2018	2	3.50%	0.00%	1.55	0.00		0.00		60.73
-	2019	3	15.50%	0.00%	1.79	0.00		0.00		70.15
	2020	4	23.00%	0.00%	2.21	0.00		0.00		86.28
	2021	5	21.00%	0.00%	2.67	0.00		0.00		104.40
	2022	6	0.00%	0.00%	2.67	0.00		0.00		104.40
	2023	7	0.76%	0.00%	2.69	0.00		0.00		105.19
-	2024	8	1.52%	0.00%	2.73	0.00		0.00		106.79
-	2025	9	2.28%	0.00%	2.79	0.00		0.00		109.23
-	2026	10	3.04%	0.00%	2.88	0.00	112.55	112.55		112.55
	2027	11+	3.80%	0.00%	2.99	0.00				

source: Valueline

CH Robinson CHRW	Year	Growth Rate	Payout Ratio	Earnings	Dividends	Terminal Value			
	0			3.57	1.81		(89.09)	price =	89.09
2017	1	7.00%	50.70%	3.82	1.94		1.94	price	95.33
2018	2	6.50%	50.70%	4.07	2.06		2.06		101.52
2019	3	7.50%	50.70%	4.37	2.22		2.22		109.14
2020	4	6.00%	50.70%	4.64	2.35		2.35		115.68
2021	5	9.50%	50.70%	5.08	2.57		2.57		126.67
2022	6	0.00%	40.94%	5.08	2.08		2.08		126.67
2023	7	0.76%	40.94%	5.11	2.09		2.09		127.64
2024	8	1.52%	40.94%	5.19	2.13		2.13		129.58
2025	9	2.28%	40.94%	5.31	2.17		2.17		132.53
2026	10	3.04%	40.94%	5.47	2.24	136.56	138.80		136.56
2027	11+	3.80%	40.94%	5.68	2.33				
						$K_e =$	6.41%		

source: Valueline

Expeditors Int'l									
EXPD		Growth	Payout			Terminal			
	Year	Rate	Ratio	Earnings	Dividends	Value			
	0			2.40	0.84		(64.69)	price =	64.69
2017	1	6.50%	35.00%	2.56	0.89		0.89		68.89
2018	2	10.00%	35.00%	2.81	0.98		0.98		75.78
2019	3	10.00%	35.00%	3.09	1.08		1.08		83.36
2020	4	8.00%	35.00%	3.34	1.17		1.17		90.03
2021	5	9.00%	35.00%	3.64	1.27		1.27		98.13
2022	6	0.00%	26.83%	3.64	0.98		0.98		98.13
2023	7	0.76%	26.83%	3.67	0.98		0.98		98.88
2024	8	1.52%	26.83%	3.72	1.00		1.00		100.38
2025	9	2.28%	26.83%	3.81	1.02		1.02		102.67
2026	10	3.04%	26.83%	3.92	1.05	105.79	106.85		105.79
2027	11+	3.80%	26.83%	4.07	1.09				
						K <sub>e</sub> =	6.35%		

source: Valueline

#### 2018 Multi Stage Dividend Growth Model Using FCFE Freight Airline Industry Assumptions: 3.80% GDP 18.5 Industry PE 31.0% Target Dividend Payout Ratio

PS			Growth		Reinvestment	Payout			Terminal	Cash		
		Year	Rate	ROE	Rate	Ratio	Earnings	FCFE	Value	Flow		
Historic		0		NMF	89.59%	10.41%	6.01			-119.15	price =	119.1
	2018	1	19.80%	NMF	NMF	NMF	7.20	NMF		0.00		
	2019	2	7.29%	NMF	NMF	NMF	7.73	NMF		0.00		
Stage 1	2020	3	6.80%	NMF	NMF	NMF	8.25	NMF		0.00		
	2021	4	6.36%	NMF	NMF	NMF	8.78	NMF		0.00		
	2022	5	5.98%	NMF	NMF	NMF	9.30	NMF		0.00		
	2023	6	5.55%	NMF	NMF	NMF	9.82	NMF		0.00		
	2024	7	5.11%	NMF	NMF	NMF	10.32	NMF		0.00		
Stage 2	2025	8	4.67%	NMF	NMF	NMF	10.80	NMF		0.00		
	2026	9	4.24%	NMF	NMF	NMF	11.26	NMF		0.00		
	2027	10	3.80%	NMF	NMF	NMF	11.68	NMF	224.19	224.19		
Stage 3		11+	3.80%	22.10%	17.19%	82.81%	12.13	2.09				
5									Ke =	NMF		

edEx DX			Growth		Reinvestment	Payout			Terminal	Cash		
		Year	Rate	ROE	Rate	Ratio	Earnings	FCFE	Value	Flow		
Historic		0		20.70%	44.15%	55.85%	12.30			-249.54	price =	249.5
	2018	1	9.76%	20.00%	60.19%	39.81%	13.50	5.37		5.37		
	2019	2	12.04%	19.50%	55.10%	44.90%	15.13	6.79		6.79		
Stage 1	2020	3	10.74%	19.00%	51.06%	48.94%	16.75	8.20		8.20		
	2021	4	9.70%	18.50%	47.80%	52.20%	18.38	9.59		9.59		
	2022	5	8.84%	18.00%	43.53%	56.47%	20.00	11.29		11.29		
	2023	6	7.83%	18.82%	36.27%	63.73%	21.57	13.74		13.74		
	2024	7	6.83%	19.64%	29.62%	70.38%	23.04	16.21		16.21		
Stage 2	2025	8	5.82%	20.46%	23.50%	76.50%	24.38	18.65		18.65		
	2026	9	4.81%	21.28%	17.86%	82.14%	25.55	20.99		20.99		
	2027	10	3.80%	22.10%	17.19%	82.81%	26.52	21.96	508.89	530.85		
Stage 3		11+	3.80%	22.10%	17.19%	82.81%	27.53	4.73				
									Ke =	10.91%		

#### Atlas Air AAWW

		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow		
Historic		0		2.50%	995.48%	-895.48%	1.50			-58.65	price =	58.65
	2018	1	220.00%	7.50%	208.33%	-108.33%	4.80	-5.20		-5.20		
	2019	2	15.63%	8.13%	166.32%	-66.32%	5.55	-3.68		-3.68		
Stage 1	2020	3	13.51%	8.75%	136.05%	-36.05%	6.30	-2.27		-2.27		
	2021	4	11.90%	9.38%	113.48%	-13.48%	7.05	-0.95		-0.95		
	2022	5	10.64%	10.00%	92.71%	7.29%	7.80	0.57		0.57		
	2023	6	9.27%	12.42%	63.63%	36.37%	8.52	3.10		3.10		
	2024	7	7.90%	14.84%	44.04%	55.96%	9.20	5.15		5.15		
Stage 2	2025	8	6.54%	17.26%	29.94%	70.06%	9.80	6.86		6.86		
	2026	9	5.17%	19.68%	19.31%	80.69%	10.30	8.31		8.31		
	2027	10	3.80%	22.10%	17.19%	82.81%	10.70	8.86	205.21	214.07		
Stage 3		11+	3.80%	22.10%	17.19%	82.81%	11.10	1.91				
									Ke =	13.70%		

CH Robinso CHRW	n	Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow	_	
Historic		0		35.50%	117.88%	-17.88%	3.57			-89.09	price =	89.09
	2018	1	26.05%	40.00%	25.69%	74.31%	4.50	3.34		3.34	-	
	2019	2	10.28%	38.38%	24.29%	75.71%	4.96	3.76		3.76		

									Ke =	10.30%
Stage 3		11+	3.80%	22.10%	17.19%	82.81%	8.58	1.48		
	2027	10	3.80%	22.10%	17.19%	82.81%	8.27	6.84	158.60	165.45
	2026	9	4.61%	24.38%	15.59%	84.41%	7.96	6.72		6.72
Stage 2	2025	8	5.42%	26.66%	17.30%	82.70%	7.61	6.30		6.30
	2024	7	6.23%	28.94%	18.74%	81.26%	7.22	5.87		5.87
	2023	6	7.04%	31.22%	19.97%	80.03%	6.80	5.44		5.44
	2022	5	7.86%	33.50%	21.03%	78.97%	6.35	5.01		5.01
	2021	4	8.53%	35.13%	22.36%	77.64%	5.89	4.57		4.57
Stage 1	2020	3	9.32%	36.75%	23.20%	76.80%	5.43	4.17		4.17

#### **IMPLIED PREMIUMS FOR US MARKET**

Updated January 2018

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	Smoothed Growth	Implied Premium (DDM)	Analyst Growth Estimate	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	0.086021	0.02908	0.0213	2.35%	0.22%	2.41%	2.92%		2.92%	124.26%
1962	5.81%	3.40%	63.1	3.67	2.15	0.087865	0.052092	0.0273	3.85%	1.12%	4.05%	3.56%		3.56%	92.47%
1963	5.51%	3.13%	75.02	4.13	2.35	0.127517	0.094493	0.0312	4.14%	1.02%	4.96%	3.38%		3.38%	81.64%
1964	5.62%	3.05%	84.75	4.76	2.58	0.152252	0.100825	0.0354	4.21%	0.67%	5.13%	3.31%		3.31%	78.62%
1965	5.73%	3.06%	92.43	5.30	2.83	0.111966	0.094195	0.0393	4.65%	0.72%	5.46%	3.32%		3.32%	71.40%
1966	6.74%	3.59%	80.33	5.41	2.88	0.022281	0.019619	0.0476	4.64%	-0.12%	4.19%	3.68%		3.68%	79.31%
1967	5.66%	3.09%	96.47	5.46	2.98	0.008489	0.033662	0.0421	5.70%	1.49%	5.25%	3.20%		3.20%	56.14%
1968	5.51%	2.93%	103.86	5.72	3.04	0.048072	0.020858	0.0521	6.16%	0.95%	5.32%	3.00%		3.00%	48.70%
1969	6.63%	3.52%	92.06	6.10	3.24	0.066558	0.064873	0.0658	7.88%	1.30%	7.55%	3.74%		3.74%	47.46%
1970	5.98%	3.46%	92.15	5.51	3.19	-0.09716	-0.016084	0.0653	6.50%	-0.03%	4.78%	3.41%		3.41%	52.46%
1971	5.46%	3.10%	102.09	5.57	3.16	0.011531	-0.007402	0.0439	5.89%	1.50%	4.57%	3.09%		3.09%	52.46%
1972	5.23%	2.70% 3.70%	118.05	6.17	3.19	0.107623	0.007128	0.0384	6.41%	2.57%	5.21%	2.72%		2.72%	42.43%
1973 1974	8.16%		97.55 68.56	7.96	3.61	0.289287	0.132398	0.0693	6.90%	-0.03%	8.30%	4.30%		4.30% 5.59%	62.32% 75.54%
1974	<u>13.64%</u> 8.55%	5.43% 4.14%	90.19	9.35 7.71	3.72 3.73	0.17481	0.031434 0.00297	0.08	7.40% 7.76%	-0.60%	6.42% 5.99%	4.13%		4.13%	53.22%
1975	9.07%	4.14%	90.19	9.75	4.22	0.263949	0.131047	0.058	6.81%	1.96% 1.73%	5.99% 8.19%	4.13%		4.13%	53.22% 66.81%
1976	9.07%	5.11%	95.1	9.75	4.22	0.263949	0.131047	0.0508	7.78%	2.66%	9.52%	4.55%	1	4.55%	76.09%
1977	12.11%	5.39%	95.1	10.87	5.18	0.070745	0.065997	0.0512	9.15%	1.97%	9.52% 8.48%	5.92%		5.72%	62.51%
1978	13.48%	5.53%	107.94	11.64	5.18	0.250143	0.152259	0.1038	9.15%	-0.05%	8.48% 11.70%	<u>5.72%</u> 6.45%		6.45%	62.44%
1979	13.48%	4.74%	135.76	14.55	6.44	0.250143	0.152259	0.1038	12.43%	1.19%	11.01%	5.03%	1	5.03%	40.47%
1981	12.39%	5.57%	122.55	15.18	6.83	0.01308	0.060763	0.1124	13.98%	-0.73%	11.42%	5.73%		5.73%	40.99%
1982	9.83%	4.93%	140.64	13.82	6.93	-0.0895	0.015751	0.1054	10.47%	-0.07%	7.96%	4.90%		4.90%	46.80%
1983	8.06%	4.32%	164.93	13.29	7.12	-0.03845	0.027608	0.1034	11.80%	3.00%	9.09%	4.31%		4.31%	36.53%
1985	10.07%	4.68%	167.24	16.84	7.83	0.266878	0.098506	0.0985	11.51%	1.66%	11.02%	5.11%		5.11%	44.40%
1985	7.42%	3.88%	211.28	15.68	8.20	-0.06912	0.04738	0.0772	8.99%	1.27%	7.89%	4.03%	6.75%	3.84%	42.71%
1986	5.96%	3.38%	242.17	14.43	8.19	-0.07933	-0.001503	0.0616	7.22%	1.06%	5.54%	3.36%	6.96%	3.58%	49.58%
1987	6.49%	3.71%	247.08	16.04	9.17	0.111004	0.119888	0.0547	8.86%	3.39%	9.66%	4.18%	8.58%	3.99%	45.03%
1988	8.20%	3.68%	277.72	24.12	10.22	0.504163	0.114919	0.0635	9.14%	2.79%	9.76%	4.12%	7.67%	3.77%	41.25%
1989	6.80%	3.32%	353.4	24.32	11.73	0.008292	0.148021	0.0837	7.93%	-0.44%	9.58%	3.85%	7.46%	3.51%	44.26%
1990	6.58%	3.74%	330.22	22.65	12.35	-0.06867	0.052617	0.0781	8.07%	0.26%	7.39%	3.92%	7.19%	3.89%	48.20%
1991	4.58%	3.11%	417.09	19.30	12.97	-0.1479	0.050304	0.07	6.70%	-0.30%	6.34%	3.27%	7.81%	3.48%	51.94%
1992	4.16%	2.90%	435.71	20.87	12.64	0.081347	-0.025896	0.053	6.68%	1.38%	4.67%	2.83%	9.83%	3.55%	53.14%
1993	4.25%	2.72%	466.45	26.90	12.69	0.288931	0.004103	0.035	5.79%	2.29%	4.73%	2.74%	8.00%	3.17%	54.75%
1994	5.89%	2.91%	459.27	31.75	13.36	0.180297	0.053385	0.05	7.82%	2.82%	7.23%	3.06%	7.17%	3.55%	45.40%
1995	5.74%	2.30%	615.93	37.70	14.17	0.187402	0.059981	0.035	5.57%	2.07%	5.65%	2.44%	6.50%	3.29%	59.07%
1996	4.83%	2.01%	740.74	40.63	14.89	0.077719	0.051	0.05	6.41%	1.41%	6.13%	2.11%	7.92%	3.20%	49.92%
1997	4.08%	1.60%	970.43	44.09	15.52	0.085159	0.042523	0.0535	5.74%	0.39%	5.45%	1.67%	8.00%	2.73%	47.56%
1998	3.11%	1.32%	1229.23	44.27	16.20	0.004083	0.04368	0.0433	4.65%	0.32%	4.60%	1.38%	7.20%	2.26%	48.60%
1999	3.07%	1.14%	1469.25	51.68	16.71	0.167382	0.031595	0.0537	6.44%	1.07%	5.75%	1.20%	12.50%	2.05%	31.83%
2000	3.94%	1.23%	1320.28	56.13	16.27	0.086107	-0.026532	0.0573	5.11%	-0.62%	3.71%	1.65%	12.00%	2.87%	56.16%
2001	3.85%	1.37%	1148.09	38.85	15.74	-0.30786	-0.032422	0.018	5.05%	3.25%	3.56%	1.73%	10.30%	3.62%	71.68%
2002	5.23%	1.83%	879.82	46.04	16.08	0.185071	0.021536	0.012	3.81%	2.61%	3.57%	2.29%	8.00%	4.10%	107.61%
2003	4.87%	1.61%	1111.91	54.69	17.88	0.18788	0.11194	0.01	4.25%	3.25%	5.35%	2.12%	11.00%	3.69%	86.82%
2004	5.58%	1.60%	1211.92	67.68	19.41	0.237521	0.085403	0.0218	4.22%	2.04%	4.90%	2.02%	8.50%	3.65%	86.49%
2005	5.47%	1.79%	1248.29	76.45	22.38	0.12958	0.153192	0.0431	4.39%	0.08%	6.16%	2.20%	8.00%	4.08%	92.94%
2006	6.18%	1.77%	1418.3	87.72	25.05	0.147417	0.119303	0.0488	4.70%	-0.18%	5.93%	1.97%	12.50%	4.16%	88.51%
2007	5.62%	1.89%	1468.36	82.54	27.73	-0.05905	0.106986	0.0331	4.02%	0.71%	5.03%	2.06%	5.00%	4.37%	108.71%
2008	7.24%	3.11%	903.25	65.39	28.05	-0.20778	0.01154	0.0159	2.21%	0.62%	2.11%	4.05%	4.00%	6.43%	290.95%
2009	5.35%	2.00%	1115.1	59.65	22.31	-0.08778	-0.204635	0.0014	3.84%	3.70%	0.28%	2.60%	7.20%	4.36%	113.54%
2010	6.65%	1.84%	1257.64	83.66	23.12	0.402515	0.036307	0.0013	3.29%	3.16%	3.33%	2.24%	6.95%	5.20%	158.05%
2011	7.72%	2.07%	1257.6	97.05	26.02	0.160053	0.125433	0.0003	1.88%	1.85%	2.75%	2.71%	7.18%	6.01%	319.68%
2012	7.18%	2.13%	1426.19	102.47	30.44	0.055848	0.169869	0.0005	1.76%	1.71%	2.93%	2.47%	5.27%	5.78%	328.41%
2013	5.81%	1.96%	1848.36	107.45	36.28	0.0486	0.191853	0.0007	3.04%	2.97%	5.01%	2.03%	4.28%	4.96%	163.16%
2014	5.57%	1.87%	2058.9	114.74	38.57	0.067846	0.06312	0.00053	2.17%	2.12%	2.55%	2.24%	5.58%	5.78%	266.36%
2015	5.20%	2.11%	2043.94	106.32	43.16	-0.0592	0.0943	0.0021	2.27%	2.06%	2.96%	2.46%	5.55%	6.12%	270.00%
2016	4.86%	2.01%	2238.83	108.86	45.03	0.0239	0.0433	0.0051	2.45%	1.94%	2.64%	2.41%	5.54%	5.69%	232.00%
-010		2.02.0		200.00		5.0205	0.0.00	5.0001	2	2.5.70	2.0.75		5.5.70	0.0370	_02.00.0