

COST OF CAPITAL STUDY

YIELD CAPITALIZATION

2020 ASSESSMENT YEAR

APPENDIX C

FREIGHT AIRLINES

QUITY RATE						8.50%	
CAPITAL ASSET PRICING MODEL							PAG
CAPM Ex Ante			7.86%				6
DIVIDEND GROWTH MODELS							
Value Line, based on Dividends G	rowth		7.50%				7
Value Line, based on Earnings Gro	owth		9.00%				8
Value Line, based on Return on Ed	quity		10.00%				9
					RANGE	7.5% - 10%	
EBT RATE						3.75%	10
) RATE					 3.75%	10
DEBT RATE COST OF SECURED DEBT (LEASE MARKET CAPITAL STRUCTURE) RATE				Tax Shield	 	
COST OF SECURED DEBT (LEASE) RATE 60%		8.50%		Tax Shield	 	
COST OF SECURED DEBT (LEASE		x x	8.50% 3.25%	=	Tax Shield 76.00%	 3.25%	10
COST OF SECURED DEBT (LEASE MARKET CAPITAL STRUCTURE Equity	60%			=		3.25% 5.10%	10

WEIGHTED AVERAGE COST OF CAPITAL

6.16%

FREIGHT AIRLINES

WASHINGTON STATE DEPARTMENT OF REVENUE 2020 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	1.00	A	100	80	75	12.3	4.10%	3,302,617,341	13.1%	-	0.0%	21,818,000,000	86.9%		100.0%
Fed Ex	FDX	1.40	A++	80	65	60	15.0	1.61%	17,776,986,558	51.7%	-	0.0%	16,617,000,000	48.3%	34,393,986,558	100.0%
Atlas Air	AAWW	1.75	B+	20	25	55	9.3	-	2,188,383,986	71.2%	-	0.0%	885,740,000	28.8%	3,074,123,986	100.0%
CH Robinson	CHRW	0.85	A	75	40	75	19.1	2.57%	1,663,580,191	60.4%	-	0.0%	1,092,448,000	39.6%	2,756,028,191	100.0%
Expeditors Int'l	EXPD	1.00	A+	70	25	80	19.5	1.56%	2,205,401,123	100.0%	-	0.0%	-	-	2,205,401,123	100.0%
Air Transport Services (ATSG	1.20	В	20	55	20	-	-	436,379,400	22.9%	-	0.0%	1,469,677,000	77.1%	1,906,056,400	100.0%
	Mean	1.20	B+	61	48	61	15.0	2.46%	4,595,558,100	53.2%		0.0%	6,980,477,500	56.1%		
Weighted	d Mean								27,573,348,598	39.7%	-	0.00%	41,882,865,000	60.3%	69,456,213,598	
_	Median	1.10					15.0	2.09%		56.0%		0.0%		48.3%		
Harmon	ic Mean	1.13						2.11%		33.4%		0.0%		47.57%		
	Max	1.75						4.10%		100.0%		0.0%		86.9%		
	Min							1.56%		13.1%		0.0%		28.8%		
	Say	1.15								45%		0.0%		55%	100%	100%

SUPPORT FOR CAPITAL STRUCTURE MARKET VALUE

WASHINGTON STATE DEPARTMENT OF REVENUE 2020 ASSESSMENT YEAR FREIGHT AIRLINES

											<u> </u>	
Company	Ticker	Stock Price	Common Shares	Common Stock	%	Preferred Stock	%	Operating Lease	%	Long Term Debt	%	Total Debt & Equity
UPS	UPS	97.53	857,822,686	83,663,446,566	67.4%	-	0.0%	13,577,856,392	10.9%	26,949,000,000	21.7%	124,190,302,958
Fed Ex	FDX	161.33	261,119,074	42,126,340,208	46.1%	-	0.0%	31,455,144,046	34.4%	17,800,000,000	19.5%	91,381,484,254
Atlas Air	AAWW	42.19	25,867,423	1,091,346,576	33.8%	-	0.0%	1,890,835,406	58.6%	246,338,000	7.6%	3,228,519,982
CH Robinson	CHRW	84.09	135,250,422	11,373,207,986	87.0%	-	0.0%	600,026,437	4.6%	1,092,448,000	8.4%	13,065,682,423
Expeditors Int'l	EXPD	68.09	170,301,245	11,595,811,772	85.5%	-	0.0%	1,964,725,668	14.5%	-	-	13,560,537,440
Air Transport Services Group	ATSG	22.81	59,130,000	1,348,755,300	24.9%	-	0.0%	2,583,811,697	47.7%	1,481,700,000	27.4%	5,414,266,997
			Mean		57.5%		0.0%		28.5%		16.9%	
			Weighted Mean	151,198,908,408	60.3%	-	0.00%	52,072,399,645	20.76%	47,569,486,000	19.0%	250,840,794,054
			Median		56.7%	Į	0.00%		24.46%		19.5%	
			Harmonic Mean		46.4%	Į			13.5%		13.0%	
			Max		87.0%	Į	0.0%		58.6%		27.4%	
			Min		24.9%		0.0%		4.6%		7.6%	
Source:			Target		60%		0%		20%		20%	100%

Stock Price: Yahoo

Market Value Debt: Bond Analysis

Capital Structure at Market Value

SUPPORT FOR MARKET MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE 2020 ASSESSMENT YEAR FREIGHT AIRLINES

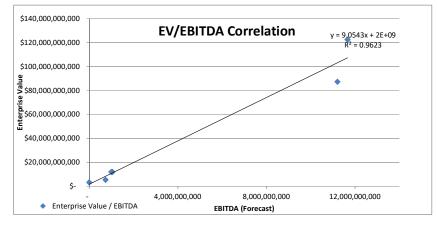
Company	Ticker	Stock Price	Revenues	Multiple	Cash Flow	Multiple	Earnings	Multiple	Book Value	Multiple
UPS	UPS	97.53	86.35	1.1	10.38	9.4	7.53	13.0	3.85	25.3
Fed Ex	FDX	161.33	267.22	0.6	28.67	5.6	15.52	10.4	68.08	2.4
Atlas Air	AAWW	42.19	105.75	0.4	14.60	2.9	4.50	NMF	84.60	0.50
CH Robinson	CHRW	84.09	112.55	0.7	5.00	16.8	4.19	20.1	12.30	6.84
Expeditors Int'l	EXPD	68.09	48.40	1.4	3.80	17.9	3.40	20.0	12.95	5.26
Air Transport Services G	ATSG	22.81	15.09	1.51	4.69	4.9	0.89	25.6	7.38	3.1
		Mean		1.0		9.6		17.8		7.2
		Median		0.9		7.5		20.0		4.2
	Harm	onic Mean		0.8		6.3		16.0		1.9
		Max		1.5		17.9		25.6		25.3
		Min		0.40		2.9		10.4		0.50
		Std Dev		0.45		6.40		6.12		9.14
Co	efficient o	f Variation		0.47		0.67		0.34		1.26
	Per	centile .25		0.6		5.1		13.0		2.5
	Per	centile .75		1.3		15.0		20.1		6.4
		Say		1.0		9.5		18.0		NMF

ENTERPRISE VALUE MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE 2020 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	\$ 122,500,302,958	11,117,000,000	11.02	4.87%	11,658,389,931	10.51	77,520,300,000	1.58	8,904,199,481	1,010,587,500	12.36
Fed Ex	FDX	\$ 87,308,484,254	10,694,000,000	8.16	4.78%	11,205,377,276	7.79	69,147,000,000	1.26	7,486,283,852	667,500,000	10.71
Atlas Air	AAWW	\$ 3,228,519,982			3.68%	-		2,900,300,000	1.11	377,664,376	9,237,675	8.34
CH Robinson	CHRW	\$ 11,981,602,423	991,619,000	12.08	5.27%	1,043,873,056	11.48	15,700,500,000	0.76	676,252,110	40,966,800	16.71
Expeditors Int'l	EXPD	\$ 11,958,932,440	983,824,000	12.16	1.61%	999,685,776	11.96	8,500,425,000	1.41	647,144,731	-	18.48
Air Transport Services Group	ATSG	\$ 5,410,714,997	736,513,000	7.35		736,513,000	7.35	-		277,319,700	55,563,750	16.25
	Mean			10.15	4.04%		9.82		1.23			13.81
	Median			11.02	4.78%		10.51		1.26			14.30
Harm	onic Mean			9.72	3.34%		9.43		1.15			12.78
	Max			12.16	5.27%		11.96		1.58			18.48
	Min			7.35	1.61%		7.35		0.76			8.34
	Std Dev			2.25	1.48%		2.12		0.31			3.94
Coefficient of	Variation			0.22	0.37		0.22		0.25			0.29
	Say			10.00	4.00%		10.00		1.20			13.50

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



Forecast EV/EBITDA By Rank

Guideline Companies	EV/EBITDA	
Air Transport Services Group	7.35	8.55 Low Average
Fed Ex	7.79	7.8 Low Median
UPS	10.51	8.0 Say
CH Robinson	11.48	11.32 High Average
Expeditors Int'l	11.96	11.7 High Median
		11.0 Say

Deleted negative data from Atlas operating income

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT CAPITAL ASSET PRICING MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE 2020 ASSESSMENT YEAR FREIGHT AIRLINES

Ex Ante

$Ke = Rf + \beta (Rp)$

ĸe =	Cost of Equity	/					7.86
		_					to pag
		Rm = Rf =	rate of return risk free rate				
		Rp =	risk premium				
		B =	Beta	1.15			pag
Rp =	Risk Premium	1					4.75
							to ab
	Shannon Pratt	and Roger	Grabowski		3.50% - 6.00%		
				s and Examples, Fifth			
	Dr. Aswath Da	Edition, 2 modaran	2014		5.20%	chart page 15	
	bii Abiiutii bu		ages.stern.nyu.e	du/~adamodar/	4.72%	adjusted for Rf	
			olied Premium				
	John Graham a	and Campb	ell Harvev		6.81%	10 year expected real retu	Irn
				Business Outlook	6.30%-7.32%	95% Interval 10 year expe	
		4th Qtr 2			6.23%	adjusted for Rf	
					1.82%	Rf rate used in survey	
Rf =	Risk Free Rat	e					2.40
				6 - 1			to ab
	as of 12-31-19	estment Si	irvey, Selected Y	ields January 4, 20/	19, page 1949		
		US Treas	ury Securities yea	r end data			
				5 year	1.69%		
				10 year	1.92% 2.39%		
				30 year 30 year Zero	2.39%		
				Jo year Zero	2.727	0	
	Federal Reserv	e Statistic	al Release (http	//www.foderalree	amia mari (Dalanana	/H1E/Current/)	
			an neerease (meep	.// www.ieueranes	erve.gov/ keleases	/ HIS/ Current/)	
	January 2, 2020 as)		erve.gov/Releases	/ his/ current/)	
	January 2, 2020 as			es	-	/ HIS/ Current/)	
	January 2, 2020 as)	es 5 year	1.69%	/ HIS/ Current/)	
	January 2, 2020 as)	es	-	(his/current/)	
	January 2, 2020 as)	5 year 10 year 20 year 30 year	1.69% 1.92%	(HIS/Current/)	
	January 2, 2020 as)	25 5 year 10 year 20 year 30 year 20 year TIPS	1.69% 1.92% 2.25% 2.39% 0.39%	1.86%	
	January 2, 2020 a:)	5 year 10 year 20 year 30 year	1.69% 1.92% 2.25% 2.39%	1.86% 1.81%	ation
	January 2, 2020 a:)	25 5 year 10 year 20 year 30 year 20 year TIPS	1.69% 1.92% 2.25% 2.39% 0.39%	1.86%	ation
Inflat)	25 5 year 10 year 20 year 30 year 20 year TIPS	1.69% 1.92% 2.25% 2.39% 0.39%	1.86% 1.81% TIPS inflation indic	2.00
Inflat	tion	Treasury) Constant Maturitie	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS	1.69% 1.92% 2.25% 2.39% <u>0.39%</u> 0.58%	1.86% 1.81%	2.00
Inflat	tion	Treasury estment Su) Constant Maturitie urvey, Economic	25 5 year 10 year 20 year 30 year 20 year TIPS	1.69% 1.92% 2.25% 2.39% <u>0.39%</u> <u>0.58%</u> 020, page 1500	1.86% 1.81% TIPS inflation indic	2.00
Inflat	tion Value Line Inve	Treasury estment Su Consume	Constant Maturitie J rvey, Economic r Price Index Annu	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS Series January 3, 2	1.69% 1.92% 2.25% 2.39% <u>0.39%</u> <u>0.58%</u> 020, page 1500	1.86% 1.81% TIPS inflation indic	2.00
Inflat	tion	Treasury estment Su Consume re Bank of I) Constant Maturitie urvey, Economic r Price Index Annu Philadelphia	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS Series January 3, 2 Jal Rate of Change 20	1.69% 1.92% 2.25% 2.39% <u>0.39%</u> <u>0.58%</u> 020, page 1500 021-2023	1.86% 1.81% TIPS inflation indic	2.00
Inflat	tion Value Line Inve	Treasury estment Su Consume re Bank of I The Livir) Constant Maturitie urvey, Economic r Price Index Annu Philadelphia ngston Survey, D	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS Series January 3, 2 Jal Rate of Change 20 ecember 13, 2019,	1.69% 1.92% 2.25% 2.39% <u>0.39%</u> <u>0.58%</u> 020, page 1500 021-2023 page 4, 10	1.86% 1.81% TIPS inflation indic to apprais 2.50%	2.00
Inflat	tion Value Line Inve	Treasury estment Su Consume re Bank of I The Livir Inflation	Constant Maturitie urvey, Economic r Price Index Annu Philadelphia ngston Survey, D median (measured	5 year 10 year 20 year 30 year 20 year TIPS 30 year TIPS Series January 3, 2 Jal Rate of Change 20	1.69% 1.92% 2.25% 2.39% <u>0.39%</u> <u>0.58%</u> 020, page 1500 021-2023 page 4, 10 xt 10 years	1.86% 1.81% TIPS inflation indic to apprais 2.50% 2.22%	2.00
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	tion Value Line Inve Federal Reserv Domestic Pro Federal Reserv	estment Su Consume re Bank of The Livir Inflation https://ww duct (GDF Median Pr https://ww Budget Off The Budge Average Pr http://www	Constant Maturitie Constant Maturitie urvey, Economic r Price Index Annu Philadelphia ngston Survey, D median (measured w.philadelphiafed.or >) d Long Run Real rojection Value Fro w.federalreserve.gu fice Real GDP Eco ti and Economic Outl ercentage Change Fr v.cbo.gov/publicatic Philadelphia	S year 10 year 20 year 30 year 20 year TIPS 30 year TIPS Series January 3, 2 Jal Rate of Change 20 eccember 13, 2019, d by the CPI) over ne: g/research-and-data/rea GDP Growth om Dec 11, 2019 Rep pov/monetarypolicy/files ponomic Projections ook 2020-2030 om Year To Year pn/54918	1.69% 1.92% 2.25% 2.39% 0.39% 0.58% 020, page 1500 021-2023 page 4, 10 xt 10 years al-time-center/livingsto ort //fomcprojtabl2018121 2020-2024 2025-2035	1.86% 1.81% TIPS inflation indic to apprais 2.50% 2.22% n-survey 1.90% 1.90% Table B-1, pg 1.80%	2.00 al temp 3.90
	tion Value Line Invo Federal Reserv 5 Domestic Proc Federal Reserv Congressional	estment Su Consume re Bank of I The Livir Inflation https://ww duct (GDF Median P https://ww Budget Off The Budge Average Pa Average Pa Average A ttp://www	Constant Maturitie Constant Maturitie Urvey, Economic r Price Index Annu Philadelphia Igston Survey, D median (measured ww.philadelphia Igston Survey, D d Long Run Real rojection Value Fro ww.federalreserve.ge fice Real GDP Eco t and Economic Outl ercentage Change Fr v.cbo.gov/publicatic Philadelphia gston Survey, Deco	S year 10 year 20 year 30 year 20 year TIPS 30 year TIPS Series January 3, 2 Jal Rate of Change 20 ecember 13, 2019, d by the CPI) over nei- rg/research-and-data/rea GDP Growth om Dec 11, 2019 Rep ov/monetarypolicy/files Donomic Projections ook 2020-2030 om Year To Year m/54918 rember 13, 2019, pag	1.69% 1.92% 2.25% 2.39% 0.39% 0.58% 020, page 1500 021-2023 page 4, 10 xt 10 years al-time-center/livingsto ort /fomcprojtabl2018121 2020-2024 2025-2035 e 4, 10	1.86% 1.81% TIPS inflation indic to appraise 2.50% 2.22% n-survey 1.90% 1.90% 1.90% 1.80% 1.65%	2.00 al temp 3.90
	tion Value Line Invo Federal Reserv 5 Domestic Proc Federal Reserv Congressional	Treasury estment Su Consume re Bank of I The Livir Inflation https://ww duct (GDF Median P https://ww Budget Off The Budge Average Pa http://www re Bank of I The Livin Average A	Constant Maturitie Constant Maturitie urvey, Economic r Price Index Annu Philadelphia ngston Survey, D median (measuree ww.philadelphia fojection Value Fro w.federalreserve.gu fice Real GDP Eco t and Economic Outl ercentage Change Fr v.cbo.gov/publicatic Philadelphia gston Survey, Dec Annual Real GDP Co	S year 10 year 20 year 30 year 20 year TIPS 30 year TIPS Series January 3, 2 Jal Rate of Change 20 eccember 13, 2019, d by the CPI) over ne: g/research-and-data/rea GDP Growth om Dec 11, 2019 Rep pov/monetarypolicy/files ponomic Projections ook 2020-2030 om Year To Year pn/54918	1.69% 1.92% 2.25% 2.39% <u>0.39%</u> <u>0.58%</u> 020, page 1500 021-2023 page 4, 10 xt 10 years al-time-center/livingsto ort /fomcprojtabl2018121 2020-2024 2025-2035 e 4, 10 Ten Years	1.86% 1.81% TIPS inflation indic to apprais 2.50% 2.22% n-survey 1.90% 1.90% 1.90% 1.80% 1.65% 2.00%	2.00 al temp 3.90

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2020 ASSESSMENT YEAR

FREIGHT AIRLINES

Based on Dividend Growth

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

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)	K _e	Forecast Dividend Growth	K _e Forecast Growth	Sustainable Dividend Growth	K _e Sustainable Growth	Ke with Multi Stage Growth Adj
UPS	UPS	97.53	4.00	4.10%	4.17%	8.27%	4.16%	8.26%	3.90%	8.00%	8.29%
Fed Ex	FDX	161.33	2.60	1.61%	0.00%		7.56%	9.17%	3.90%	5.51%	7.23%
Atlas Air	AAWW	42.19	0.00				0.00%		0.00%		
CH Robinson	CHRW	84.09	2.16	2.57%	7.46%	10.03%	4.75%	7.31%	3.90%	6.47%	7.48%
Expeditors Int'l	EXPD	68.09	1.06	1.56%	6.00%	7.56%	3.26%	4.82%	3.26%	4.82%	5.75%
Air Transport Services Group	ATSG	22.81	0.00				0.00%		0.00%		
			Mean	2.46%		8.62%		7.39%		6.20%	7.19%
			Median	2.09%		8.27%		7.79%		5.99%	7.35%
1		Har	monic Mean	2.11%		8.50%		6.96%		5.98%	7.06%
1			Max	4.10%		10.03%		9.17%		8.00%	8.29%
4			Min	1.56%		7.56%		4.82%		4.82%	5.75%

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

Say 7.50%

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SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2020 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 _e	Forecast Earnings Growth	K _e Forecast Growth	Sustainable Earnings Growth	K _e Sustainable Growth	Ke with Multi Stage Growth Adj	Ke Multi Stage FCFE
UPS	UPS	97.53	7.90	8.10%	4.91%	13.01%	3.82%	11.92%	3.82%	11.92%	8.47%	NMF
Fed Ex	FDX	161.33	10.75	6.66%	-30.73%		9.19%	15.86%	3.90%	10.56%	5.46%	13.10%
Atlas Air	AAWW	42.19	4.55	10.78%	1.11%	11.90%	4.73%	15.52%	3.90%	14.68%	4.70%	11.33%
CH Robinson	CHRW	84.09	4.40	5.23%	5.01%	10.24%	6.30%	11.53%	3.90%	9.13%	8.68%	9.71%
Expeditors Int'l	EXPD	68.09	3.50	5.14%	2.94%	8.08%	4.51%	9.65%	3.90%	9.04%	5.74%	7.43%
Air Transport Services Group	ATSG	22.81	0.00						3.90%			NMF
			Mean	7.18%		10.81%		12.89%		11.07%	6.61%	10.40%
			Median	6.66%		11.07%		11.92%		10.56%	5.74%	10.52%
		Har	monic Mean	6.65%		10.46%		12.44%		10.71%	6.22%	9.95%
			Max	10.78%		13.01%		15.86%		14.68%	8.68%	13.10%
			Min	5.14%		8.08%		9.65%		9.04%	4.70%	7.43%

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

2020 ASSESSMENT YEAR

FREIGHT AIRLINES

Based on Return on Equity

- Ke = (D1 / Po) + G
- Ke = Cost of Equity
- **D1** = Expected Dividends
- **E1 =** Expected Earnings
- **Po =** Current Price
- **G** = Sustainable 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)	Growth (b*ROE)	K _e Dividends	K _e Earnings
UPS	UPS	97.53	4.00	7.90	4.10%	49.4%	8.10%	4.00%	8.10%	12.10%
Fed Ex	FDX	161.33	2.60	10.75	1.61%	75.8%	6.66%	5.05%	6.66%	11.72%
Atlas Air	AAWW	42.19	0.00	4.55		100.0%	10.78%	10.78%		21.57%
CH Robinson	CHRW	84.09	2.16	4.40	2.57%	50.9%	5.23%	2.66%	5.23%	7.90%
Expeditors Int'l	EXPD	68.09	1.06	3.50	1.56%	69.7%	5.14%	3.58%	5.14%	8.72%
Air Transport Services Grou	ATSG	22.81	0.00	0.00		100.0%	0.00%	0.00%		
								Mean	6.28%	12.40%
								Median	5.95%	11.72%
							Har	monic Mean	6.07%	10.97%
								Мах	8.10%	21.57%
								Min	5.14%	7.90%



SUPPORT FOR DEBT RATING AND DEBT YIELD RATE

WASHINGTON STATE DEPARTMENT OF REVENUE 2020 ASSESSMENT YEAR FREIGHT AIRLINES

Company	Ticker	Mergent's Ratings	S&P Ratings
UPS	UPS	A1	A+
Fed Ex	FDX	Baa2	BBB
Atlas Air	AAWW	-	-
CH Robinson	CHRW	-	-
Expeditors Int'l	EXPD	-	-
Air Transport Services Group	ATSG	-	-
Overall Average Debt Rating		A3	A-

Mergent's Bond Record Janu	ary 2020, pa	ge 234		
Corporate	Aaa	Aa	A	Baa
October	3.01%	3.13%	3.37%	3.93%
November	3.06%	3.16%	3.40%	3.94%
December				
December	3.01%	3.11%	3.36%	3.88%
4th Qtr Average	3.03%	3.13%	3.38%	3.92%
Public Utilities		Aa	A	Baa
October		3.24%	3.39%	3.72%
November		3.25%	3.43%	3.76%
December		3.22%	3.40%	3.73%
4th Qtr Average		3.24%	3.41%	3.74%
Industrials	Aaa	Aa	A	Baa
October	3.01%	3.01%	3.35%	4.12%
November	3.06%	3.06%	3.37%	4.12%
	0.010/	3.00%	3.32%	4.03%
December	3.01%	5.00%	5.52 /0	

Debt Yield Rate		3.75%
Cost of Secured Debt (Lease)	Based on 4th Quarter Aa rate	3.25%

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WASHINGTON STATE DEPARTMENT OF REVENUE 2020 ASSESSMENT YEAR

FREIGHT AIRLINES

								Historic Figur	es (2019)			
Guideline Companies	Stock Price 12/31/2019	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	97.53	1.00	86.35	10.38	7.53	3.84	3.85	857,822,686	13.9	14.2%	22.0%
Fed Ex	FDX	161.33	1.40	267.22	28.67	15.52	2.60	68.08	261,119,074	11.6	12.3%	22.1%
Atlas Air	AAWW	42.19	1.75	105.75	14.60	4.50	-	84.60	25,867,423	5.8	14.0%	12.0%
CH Robinson	CHRW	84.09	0.85	112.55	5.00	4.19	2.01	12.30	135,250,422	17.4	6.0%	22.5%
Expeditors Int'l	EXPD	68.09	1.00	48.40	3.80	3.40	1.00	12.95	170,301,245	20.2	10.5%	25.0%
Air Transport Services Group	ATSG	22.81	1.20	15.09	4.69	0.89	-	7.38	59,130,000	-	38.4%	22.4%

Value Line February, 2020

Value Line

WASHINGTON STATE DEPARTMENT OF REVENUE 2020 ASSESSMENT YEAR

2020 ASSESSMENT YEAR

FREIGHT AIRLINES

			Projected (Next Year) 2020									
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	2021	2025
Name	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL
UPS	NMF	90.35	10.95	7.90	4.00	7.60	858,000,000	7.75	NMF	51.0%	4.20	5.15
Fed Ex	23.2%	265.95	24.55	10.75	2.60	75.65	260,000,000	20.00	16.0%	24.0%	2.64	3.80
Atlas Air	5.0%	111.55	16.35	4.55	-	93.25	26,000,000	5.75	5.0%	0.0%	0.00	0.00
CH Robinson	34.5%	116.30	5.25	4.40	2.16	13.20	135,000,000	0.70	33.5%	49.0%	2.30	2.90
Expeditors Int'l	27.0%	50.15	3.90	3.50	1.06	13.55	169,500,000	0.35	26.5%	30.0%	1.15	1.35
Air Transport Services Group	15.6%										0.00	0.00

Value Line February, 2020

2019	2020
3.84	4.00
2.60	2.60
-	-

UPS Fed Ex Atlas Air

WASHINGTON STATE DEPARTMENT OF REVENUE

2020 ASSESSMENT YEAR

FREIGHT AIRLINES

				LON	GER TEF	RM FORC	ASTS	LONGER TERM FORCASTS								
	r Share	Earr	nings %	Change	Cash Flow % Change			Revenue % Change				Income Statement				
Guideline Companies	% Annual change	2021	2025	% Annual Change	2021	2025	% Annual Change	2021	2025	% Annual Change	Return on Shareholder Equity	Operating Income	Current Assets			
Name	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	M*	M*			
UPS	4.16%	8.50	10.25	3.82%	11.70	13.85	3.43%	94.45	119.80	4.87%	NMF	7,798,000,000	17,103,000,000			
Fed Ex	7.56%	12.40	19.25	9.19%	26.60	36.15	6.33%	277.10	350.00	4.78%	17.0%	4,466,000,000	13,086,000,000			
Atlas Air	0.00%	5.00	6.30	4.73%	17.90	22.70	4.87%	119.25	142.90	3.68%	5.5%	(460,971,000)	632,531,000			
CH Robinson	4.75%	4.90	6.65	6.30%	5.80	7.80	6.10%	121.64	157.25	5.27%	29.0%	789,976,000	2,640,118,000			
Expeditors Int'l	3.26%	3.65	4.55	4.51%	4.15	5.10	4.21%	52.85	57.25	1.61%	27.5%	766,692,000	2,769,923,000			
Air Transport Services Group	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%		176,997,000	266,791,000			
Value Line February, 2020	<mark>%Change</mark> 4.17% 0.00% NMF	7.00	2020 7.90 10.75 4.55	<mark>%Change</mark> 4.91% -30.73% 1.11%			<mark>%Change</mark> 5.49% -14.37% 11.99%	267.22	90.35 265.95	<mark>%Change</mark> 4.63% -0.48% 5.48%						

WASHINGTON STATE DEPARTMENT OF REVENUE 2020 ASSESSMENT YEAR

FREIGHT AIRLINES

		Balance Sheet			Cash Flow Statement	Other Financials			
Guideline Companies	PP & E Gross	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	
Name	M*	M*	M*	M*/10-K	M *	10-K	10-K	10-K	
UPS	59,727,000,000	2,167,000,000	15,413,000,000	21,818,000,000	2,360,000,000	25,238,000,000	26,949,000,000	3,420,000,000	
Fed Ex	56,511,000,000	416,000,000	9,013,000,000	16,617,000,000	3,353,000,000	17,518,000,000	17,800,000,000	964,000,000	
Atlas Air	4,964,008,000	76,856,000	1,099,162,000	885,740,000	251,097,000	2,364,517,000	246,338,000	395,781,000	
CH Robinson	489,976,000	247,810,000	1,556,038,000	1,092,448,000	100,449,000	1,235,333,000	1,092,448,000	142,885,000	
Expeditors Int'l	978,250,000	-	1,168,318,000	-	50,950,000	-	-	-	
Air Transport Services Group	2,912,217,000	140,000,000	263,239,000	1,469,677,000	257,532,000	1,484,400,000	1,481,700,000	14,707,000	

Value Line February, 2020

Washington State Department of Revenue

DATA INPUT

WASHINGTON STATE DEPARTMENT OF REVENUE

2020 ASSESSMENT YEAR

FREIGHT AIRLINES

Guideline Companies	Aircraft Rental Expense
Name	10-К
UPS	959,000,000
Fed Ex	2,875,000,000
Atlas Air	155,639,000
CH Robinson	101,194,000
Expeditors Int'l	166,182,000
Air Transport Services Group	301,984,000

Value Line February, 2020

2020 Multi Stage Dividend Growth Model for DGM-d7

Freight Airline Industry

United Parcel Se UPS	rvice	Crowth	Daviaut			Torminal			
0P5	Year	Growth Rate	Payout Ratio	Earnings	Dividends	Terminal Value			
		Rale	Ratio	5		value			
	0			7.53	3.84		(97.53)	price =	97.53
0	1	4.17%	51.00%	7.84	4.00		4.00		101.59
1	2	5.00%	51.00%	8.24	4.20		4.20		106.67
2	3	4.16%	51.00%	8.58	4.37		4.37		111.11
3	4	4.16%	51.00%	8.94	4.56		4.56		115.74
4	5	4.16%	51.00%	9.31	4.75		4.75		120.56
5	6	4.16%	50.24%	9.70	4.87		4.87		125.57
6	7	4.11%	50.24%	10.09	5.07		5.07		130.74
7	8	4.06%	50.24%	10.50	5.28		5.28		136.04
8	9	4.01%	50.24%	10.92	5.49		5.49		141.49
9	10	3.95%	50.24%	11.36	5.71	147.08	152.79		147.08
10	11+	3.90%	50.24%	11.80	5.93				
						K _e =	8.29%		

source: Valueline

FDX			Growth	Payout			Terminal			
		Year	Rate	Ratio	Earnings	Dividends	Value			
		0			15.52	2.60		(161.33)	price =	161.33
	0	1	0.00%	16.75%	15.52	2.60		2.60		161.33
	1	2	1.54%	16.75%	15.76	2.64		2.64		163.81
	2	3	7.56%	16.75%	16.95	2.84		2.84		176.19
	3	4	7.56%	16.75%	18.23	3.05		3.05		189.50
	4	5	7.56%	16.75%	19.61	3.28		3.28		203.82
	5	6	7.56%	19.74%	21.09	4.16		4.16		219.22
	6	7	6.83%	19.74%	22.53	4.45		4.45		234.19
	7	8	6.09%	19.74%	23.90	4.72		4.72		248.46
	8	9	5.36%	19.74%	25.18	4.97		4.97		261.78
	9	10	4.63%	19.74%	26.35	5.20	273.91	279.11		273.91
	10	11+	3.90%	19.74%	27.38	5.40				
							K _e =	7.23%		

source: Valueline

CH Robinson

CHRW			Growth	Payout			Terminal			
		Year	Rate	Ratio	Earnings	Dividends	Value			
		0			4.19	2.01		(84.09)	price =	84.09
	0	1	7.46%	47.97%	4.50	2.16		2.16		90.37
	1	2	6.48%	47.97%	4.79	2.30		2.30		96.22
	2	3	4.75%	47.97%	5.02	2.41		2.41		100.79
	3	4	4.75%	47.97%	5.26	2.52		2.52		105.57
	4	5	4.75%	47.97%	5.51	2.64		2.64		110.58
	5	6	4.75%	43.61%	5.77	2.52		2.52		115.83
	6	7	4.58%	43.61%	6.04	2.63		2.63		121.13
	7	8	4.41%	43.61%	6.30	2.75		2.75		126.47
	8	9	4.24%	43.61%	6.57	2.86		2.86		131.83
	9	10	4.07%	43.61%	6.84	2.98	137.19	140.17		137.19
	10	11+	3.90%	43.61%	7.10	3.10				
							V -	7 / 90/-		

K_e = 7.48%

source: Valueline

Expeditors Int'l EXPD		Growth	Payout			Terminal			
	Year	Rate	Ratio	Earnings	Dividends	Value			
	0			3.40	1.00		(68.09)	price =	68.09
0	1	6.00%	29.41%	3.60	1.06		1.06		72.18
1	2	8.49%	29.41%	3.91	1.15		1.15		78.30
2	3	3.26%	29.41%	4.04	1.19		1.19		80.86
3	4	3.26%	29.41%	4.17	1.23		1.23		83.49
4	5	3.26%	29.41%	4.30	1.27		1.27		86.21
5	6	3.26%	29.67%	4.45	1.32		1.32		89.02
6	7	3.39%	29.67%	4.60	1.36		1.36		92.04
7	8	3.52%	29.67%	4.76	1.41		1.41		95.27
8	9	3.64%	29.67%	4.93	1.46		1.46		98.74
9	10	3.77%	29.67%	5.12	1.52	102.47	103.98		102.47
10	11+	3.90%	29.67%	5.32	1.58				
						K. =	5.75%		

source: Valueline

 $K_{e} = 5.75\%$

2020 Multi Stage Dividend Growth Model for DGM-e8

JPS		Growth	Payout			Terminal			
	Year	Rate	Ratio	Earnings	Dividends	Value			
	0			7.53	3.84		(97.53)	price =	97.53
0	1	4.91%	51.00%	7.90	4.03		4.03		102.32
1	2	7.59%	51.00%	8.50	4.33		4.33		110.09
2	3	3.82%	51.00%	8.82	4.50		4.50		114.29
3	4	3.82%	51.00%	9.16	4.67		4.67		118.65
4	5	3.82%	51.00%	9.51	4.85		4.85		123.18
5	6	3.82%	50.24%	9.87	4.96		4.96		127.88
6	7	3.83%	50.24%	10.25	5.15		5.15		132.78
7	8	3.85%	50.24%	10.65	5.35		5.35		137.89
8	9	3.87%	50.24%	11.06	5.56		5.56		143.22
9	10	3.88%	50.24%	11.49	5.77	148.79	154.56		148.79
10	11+	3.90%	50.24%	11.94	6.00				

source: Valueline

FDX			Growth	Payout			Terminal			
		Year	Rate	Ratio	Earnings	Dividends	Value			
		0			15.52	2.60		(161.33)	price =	161.33
	0	1	-30.73%	16.75%	10.75	1.80		1.80		111.75
	1	2	15.35%	16.75%	12.40	2.08		2.08		128.90
	2	3	9.19%	16.75%	13.54	2.27		2.27		140.75
	3	4	9.19%	16.75%	14.79	2.48		2.48		153.69
	4	5	9.19%	16.75%	16.14	2.70		2.70		167.82
	5	6	9.19%	19.74%	17.63	3.48		3.48		183.25
	6	7	8.14%	19.74%	19.06	3.76		3.76		198.16
	7	8	7.08%	19.74%	20.41	4.03		4.03		212.19
	8	9	6.02%	19.74%	21.64	4.27		4.27		224.96
	9	10	4.96%	19.74%	22.71	4.48	236.11	240.59		236.11
	10	11+	3.90%	19.74%	23.60	4.66				
							K _e =	5.46%		

source: Valueline

Atlas Air

				. .			- · ·			
AAWW			Growth	Payout			Terminal			
		Year	Rate	Ratio	Earnings	Dividends	Value			
		0			4.50	-		(42.19)	price =	42.19
	0	1	1.11%	0.00%	4.55	0.00		0.00		42.66
	1	2	9.89%	0.00%	5.00	0.00		0.00		46.88
	2	3	4.73%	0.00%	5.24	0.00		0.00		49.10
	3	4	4.73%	0.00%	5.48	0.00		0.00		51.42
	4	5	4.73%	0.00%	5.74	0.00		0.00		53.85
	5	6	4.73%	0.00%	6.02	0.00		0.00		56.40
	6	7	4.56%	0.00%	6.29	0.00		0.00		58.97
	7	8	4.40%	0.00%	6.57	0.00		0.00		61.57
	8	9	4.23%	0.00%	6.84	0.00		0.00		64.17
	9	10	4.07%	0.00%	7.12	0.00	66.78	66.78		66.78
	10	11+	3.90%	0.00%	7.40	0.00				
							K. =	4.70%		

 $K_e = 4.70\%$

source: Valueline

CH Robinson CHRW	Year	Growth Rate	Payout Ratio	Earnings	Dividends	Terminal Value			
	0			4.19	2.01		(84.09)	price =	84.09
0	1	5.01%	47.97%	4.40	2.11		2.11		88.30
1	2	11.36%	47.97%	4.90	2.35		2.35		98.34
2	3	6.30%	47.97%	5.21	2.50		2.50		104.53
3	4	6.30%	47.97%	5.54	2.66		2.66		111.12
4	5	6.30%	47.97%	5.89	2.82		2.82		118.11
5	6	6.30%	43.61%	6.26	2.73		2.73		125.55
6	7	5.82%	43.61%	6.62	2.89		2.89		132.86
7	8	5.34%	43.61%	6.97	3.04		3.04		139.95
8	9	4.86%	43.61%	7.31	3.19		3.19		146.75
9	10	4.38%	43.61%	7.63	3.33	153.18	156.51		153.18
10	11+	3.90%	43.61%	7.93	3.46				
						K _e =	8.68%		

source: Valueline

Expeditors Int'l

EXPD			Growth	Payout			Terminal			
		Year	Rate	Ratio	Earnings	Dividends	Value			
		0			3.40	1.00		(68.09)	price =	68.09
	0	1	2.94%	29.41%	3.50	1.03		1.03		70.09
	1	2	4.29%	29.41%	3.65	1.07		1.07		73.10
	2	3	4.51%	29.41%	3.81	1.12		1.12		76.39
	3	4	4.51%	29.41%	3.99	1.17		1.17		79.83
	4	5	4.51%	29.41%	4.17	1.23		1.23		83.43
	5	6	4.51%	29.67%	4.35	1.29		1.29		87.19
	6	7	4.39%	29.67%	4.54	1.35		1.35		91.01
	7	8	4.26%	29.67%	4.74	1.41		1.41		94.90
	8	9	4.14%	29.67%	4.93	1.46		1.46		98.83
	9	10	4.02%	29.67%	5.13	1.52	102.80	104.32		102.80
	10	11+	3.90%	29.67%	5.33	1.58				
							K _e =	5.74%		

source: Valueline

2020 Multi Stage Dividend Growth Model Using FCFE Freight Airline Industry Assumptions: 3.90% GDP

reight Airli		Assumpti	ons:	15.0 30.0%	 GDP Industry PE Target Dividend F Target ROE 	ayout Ratio						
Inited Parce IPS	l Servic	ce Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow		
Historic		0		NMF	23.12%	76.88%	7.53			-97.53	price =	97.53
	0	1	4.91%	NMF	NMF	NMF	7.90	NMF		0.00		
	1	2	7.44%	NMF	NMF	NMF	8.49	NMF		0.00		
Stage 1	2	3	6.92%	NMF	NMF	NMF	9.08	NMF		0.00		
	3	4	6.47%	NMF	NMF	NMF	9.66	NMF		0.00		
	4	5	6.08%	NMF	NMF	NMF	10.25	NMF		0.00		
	5	6	5.64%	NMF	NMF	NMF	10.83	NMF		0.00		
	6	7	5.21%	NMF	NMF	NMF	11.39	NMF		0.00		
Stage 2	7	8	4.77%	NMF	NMF	NMF	11.94	NMF		0.00		
	8	9	4.34%	NMF	NMF	NMF	12.45	NMF		0.00		
	9	10	3.90%	NMF	NMF	NMF	12.94	NMF	201.76	201.76		
Stage 3		11+	3.90%	21.25%	18.35%	81.65%	13.44	NMF				
									Ke =	NMF		

XC			Growth		Reinvestment	Payout			Terminal	Cash		
		Year	Rate	ROE	Rate	Ratio	Earnings	FCFE	Value	Flow		
Historic		0		23.20%	-144.63%	244.63%	15.52			-161.33	price =	161.
	0	1	-30.73%	16.00%	123.55%	-23.55%	10.75	-2.53		-2.53		
	1	2	19.77%	16.25%	101.57%	-1.57%	12.88	-0.20		-0.20		
Stage 1	2	3	16.50%	16.50%	85.86%	14.14%	15.00	2.12		2.12		
	3	4	14.17%	16.75%	74.08%	25.92%	17.13	4.44		4.44		
	4	5	12.41%	17.00%	62.98%	37.02%	19.25	7.13		7.13		
	5	6	10.71%	17.85%	50.45%	49.55%	21.31	10.56		10.56		
	6	7	9.01%	18.70%	39.06%	60.94%	23.23	14.16		14.16		
Stage 2	7	8	7.30%	19.55%	28.65%	71.35%	24.93	17.78		17.78		
	8	9	5.60%	20.40%	19.12%	80.88%	26.32	21.29		21.29		
	9	10	3.90%	21.25%	18.35%	81.65%	27.35	22.33	426.46	448.79		
Stage 3		11+	3.90%	21.25%	18.35%	81.65%	28.42	23.20				
									Ke =	13.10%		

Atlas Air AAWW

		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow		
Historic		0		5.00%	5.23%	94.77%	4.50			-42.19	price =	42.19
	0	1	1.11%	5.00%	192.31%	-92.31%	4.55	-4.20		-4.20		
	1	2	9.62%	5.13%	171.16%	-71.16%	4.99	-3.55		-3.55		
Stage 1	2	3	8.77%	5.25%	153.61%	-53.61%	5.43	-2.91		-2.91		
	3	4	8.06%	5.38%	138.84%	-38.84%	5.86	-2.28		-2.28		
	4	5	7.46%	5.50%	122.73%	-22.73%	6.30	-1.43		-1.43		
	5	6	6.75%	8.65%	69.80%	30.20%	6.73	2.03		2.03		
	6	7	6.04%	11.80%	45.13%	54.87%	7.13	3.91		3.91		
Stage 2	7	8	5.33%	14.95%	30.85%	69.15%	7.51	5.19		5.19		
-	8	9	4.61%	18.10%	21.55%	78.45%	7.86	6.16		6.16		
	9	10	3.90%	21.25%	18.35%	81.65%	8.16	6.67	127.30	133.96		
Stage 3		11+	3.90%	21.25%	18.35%	81.65%	8.48	6.93				
									Ke =	11.33%		

CH Robinson CHRW		Year	Growth Rate	ROE	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow		
Historic		0		34.50%	23.59%	76.41%	4.19			-84.09	price =	84.09
	0	1	5.01%	33.50%	38.16%	61.84%	4.40	2.72		2.72		
	1	2	12.78%	32.38%	35.01%	64.99%	4.96	3.23		3.23		
Stage 1	2	3	11.34%	31.25%	32.58%	67.42%	5.53	3.73		3.73		
	3	4	10.18%	30.13%	30.67%	69.33%	6.09	4.22		4.22		
	4	5	9.24%	29.00%	28.18%	71.82%	6.65	4.78		4.78		
	5	6	8.17%	27.45%	25.88%	74.12%	7.19	5.33		5.33		
	6	7	7.10%	25.90%	23.31%	76.69%	7.70	5.91		5.91		

									Ke =	9.71%
Stage 3		11+	3.90%	21.25%	18.35%	81.65%	9.26	7.56		
	9	10	3.90%	21.25%	18.35%	81.65%	8.91	7.27	138.93	146.20
	8	9	4.97%	22.80%	17.11%	82.89%	8.58	7.11		7.11
Stage 2	7	8	6.04%	24.35%	20.40%	79.60%	8.17	6.50		6.50

IMPLIED PREMIUMS FOR US MARKET

Updated January 2020

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

Yet		rnings ′ield	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)
19	50 5	.34%	3.41%	58.11	3.10	1.98				2.66%	2.76%	0.10%	2.45%			
19	51 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%
19	52 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%
19		.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%
19		.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%
19		.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%
19		.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%
19		.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%
19 19		.51%	2.93% 3.52%	103.86 92.06	5.72 6.10	3.04 3.24		4.81% 6.66%	2.09% 6.49%	5.21% 6.58%	6.16% 7.88%	0.95%	5.32% 7.55%	3.00% 3.74%		3.00% 3.74%
19		.03%	3.46%	92.00	5.51	3.19		-9.72%	-1.61%	6.53%	6.50%	-0.03%	4.78%	3.41%		3.41%
19		.46%	3.10%	102.09	5.57	3.15		1.15%	-0.74%	4.39%	5.89%	1.50%	4.57%	3.09%		3.09%
19		.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%
19		.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%
19	74 13	3.64%	5.43%	68.56	9.35	3.72		17.48%	3.14%	8.00%	7.40%	-0.60%	6.42%	5.59%		5.59%
19	75 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%
19	76 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%
19		L.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%
19		2.11%	5.39%	96.11	11.64	5.18		7.07%	6.60%	7.18%	9.15%	1.97%	8.48%	5.72%		5.72%
19		3.48%	5.53%	107.94	14.55	5.97		25.01%	15.23%	10.38%	10.33%	-0.05%	11.70%	6.45%		6.45%
19		L.04% 2.39%	4.74% 5.57%	135.76 122.55	14.99 15.18	6.44 6.83		3.01% 1.31%	7.81% 6.08%	11.24% 14.71%	12.43% 13.98%	1.19% -0.73%	11.01% 11.42%	5.03% 5.73%		5.03% 5.73%
19		.83%	4.93%	122.55	13.82	6.93		-8.95%	1.58%	10.54%	10.47%	-0.73%	7.96%	4.90%		4.90%
19		.06%	4.32%	164.93	13.82	7.12		-3.84%	2.76%	8.80%	11.80%	3.00%	9.09%	4.30%		4.30%
19		0.07%	4.68%	167.24	16.84	7.83		26.69%	9.85%	9.85%	11.51%	1.66%	11.02%	5.11%		5.11%
19		.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%
19		.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%
19	37 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%
19	38 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%
19		.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%
19		.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%
19		.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%
19		.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%
19	-	.25% .89%	2.72%	466.45 459.27	26.90 31.75	12.69 13.36		28.89% 18.03%	0.41%	3.50% 5.00%	5.79% 7.82%	2.29%	4.73%	2.74% 3.06%	8.00% 7.17%	3.17% 3.55%
19		.89%	2.30%	615.93	31.75	13.30		18.03%	6.00%	3.50%	5.57%	2.82%	5.65%	2.44%	6.50%	3.29%
19		.83%	2.01%	740.74	40.63	14.17		7.77%	5.10%	5.00%	6.41%	1.41%	6.13%	2.11%	7.92%	3.20%
19		.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%
19		.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%
19		.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%
20		.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%
20		.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%
20		.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%
20		.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%
20		.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%
20		.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%
20		.18%	1.77% 1.89%	1418.3 1468.36	87.72 82.54	25.05 27.73	73.16 95.36	14.74% -5.91%	11.93% 10.70%	4.88%	4.70% 4.02%	-0.18% 0.71%	5.93% 5.03%	1.97% 2.06%	12.50% 5.00%	4.16% 4.37%
20		.62%	1.89%	1468.36 903.25	65.39	27.73	95.36 67.52	-5.91%	10.70%	3.31%	4.02%	0.71%	2.11%	4.05%	4.00%	4.37% 6.43%
20		.24%	2.00%	1115.10	59.65	28.05	37.43	-20.78%	-20.46%	0.14%	3.84%	3.70%	0.28%	2.60%	7.20%	4.36%
20		.65%	1.84%	1257.64	83.66	23.12	55.53	40.25%	3.63%	0.14%	3.29%	3.16%	3.33%	2.24%	6.95%	5.20%
20		.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%
20		.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%
20		.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%
20	-	.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%
20		.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%
20	16 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%