2016

CAPITALIZATION RATE STUDY FOR CENTRALLY ASSESSED PROPERTIES

FOR: JANUARY 1, 2016

UTAH STATE TAX COMMISSION

PROPERTY TAX DIVISION
UTILITIES & TRANSPORTATION SECTION
210 NORTH 1950 WEST, THIRD FLOOR
SALT LAKE CITY, UTAH 84134

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REV. 3/23/2016

Industry	Page	Equity Yield Rate	Debt / Equity	Income Tax Rate
LEGACY AIR CARRIERS	3	11.10%	45% / 55%	38.50%
DISCOUNT AIR CARRIERS	6	10.34%	25% / 75%	38.50%
REGIONAL AIR CARRIERS	9	10.95%	75% / 25%	38.50%
SOUTHWEST AIRLINES	12	10.38%	20% / 80%	38.50%
FREIGHT AIR CARRIERS	15	9.65%	25% / 75%	38.50%
ELECTRIC UTILITIES	18	8.44%	40% / 60%	33.77%
NATURAL GAS UTILITIES	21	8.10%	40% / 60%	36.10%
NATURAL GAS PIPELINES	24	12.72%	45% / 55%	27.36%
LIQUID PIPELINES	27	12.58%	40% / 60%	20.96%
RAILROAD & TERMINAL	30	11.80%	20% / 80%	33.20%
RAILROAD - SHORTLINE	33	11.99%	20% / 80%	33.15%
WIRELESS TELECOMS	36	8.72%	40% / 60%	32.23%
WIRELINE TELECOMS	39	9.66%	65% / 35%	33.45%
BROADBAND TELECOMS	42	10.09%	35% / 65%	38.50%

CORPORATE BONDS

Aaa	3.97%
Aa	4.16%
A	4.38%
Baa	5.46%
Ba1	6.96%
Ba2	7.15%
Ba3	7.15%
B1	8.29%
B2	8.29%
B3	8.29%
Caa1	9.40%
Caa2	9.40%
Caa3	9.40%
Ca	12.56%
C	12.56%

PUBLIC UTILITY BONDS

Aaa	N/A
Aa	4.16%
A	4.35%
Baa	5.55%

PREFERRED STOCKS

Aaa	N/A
Aa	N/A
A	N/A
Baa	N/A

MISCELLANEOUS RATES

Airline 'TEFRA' Relief Factor	4.95%
4-R Act Relief for Railroads	10.00%
4-R Act Relief (BNSF only)	0.00%
Rural Telephone Equity Rate Adj.	4.00%
Default Income Tax Rate	38.50%
ValueLine GDP Price Deflator Forecast	2.00%

INFLATION FACTORS

Year	4th Quarter GDP Implicit Price Deflator	Annual Percent Change	Conversion Factor
2005	93.100	N/A	**1.184**
2006	95.580	2.66%	**1.154**
2007	97.956	2.49%	**1.126**
2008	99.815	1.90%	**1.105**
2009	100.169	0.35%	**1.101**
2010	101.949	1.78%	**1.081**
2011	103.917	1.93%	**1.061**
2012	105.935	1.94%	**1.041**
2013	107.589	1.56%	**1.025**
2014	109.067	1.37%	**1.011**
2015	110.254	1.09%	**1.000**

2016 - 2006 Average Change: 1.71%

Source:

U.S. Department of Commerce: Bureau of Economic Analysis
Gross Domestic Product: Implicit Price Deflator

Website:

http://alfred.stlouisfed.org/series?seid=GDPDEF

MISCELLANEOUS INFORMATION

Resources:

Market risk premium and supply side risk premium are taken from:

Morningstar, Inc. . (2016). 2016 Ibbotson SBBI Presentation. Chicago, IL: Morningstar, Inc. Retreived from Morningstar Anaylst Research Center https://ar.morningstar.com/markets/PrinciplesOfInvesting.aspx

Stock prices are December 31, 2015 closing from Yahoo! Finance. (2016). Retrieved from http://finance.yahoo.com/

Bond yield information derived from Mergent bond record. (January 2016 Vol. 83, No. 1). New York: Mergent, Inc.

Company and industry data from (2016). Value line. New York: Value Line Inc. Retrieved from http://www.valueline.com/

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	10.74%
CAPM: Supply Side	9.64%
CAPM: Implied ERP	9.73%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	10.05%
DGM: Earnings & Dividend	31.84%
DGM: Plowback Ratio	19.91%
Reconciled Equity Rate	**11.10%**
Debt/Equity Structure	**45.00% / 55.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	1.17
Industry Risk Premium	8.07%
Add: Risk-Free Rate	2.67%
Indicated Rate	**10.74%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	1.17
Industry Risk Premium	6.97%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.64%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
American Airlines	NMF	1.11 (B)	1.25
Delta Air Lines	37.39%	1.00 (B+)	1.20
United Cont'l Hldgs.	NMF	1.11 (B)	1.05
Selected	**38.50%**	**1.07**	**1.17**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	1.17
Industry Risk Premium	7.06%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.73%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	1.07
Industry Risk Premium	7.38%
Add: Risk-Free Rate	2.67%
Indicated Rate	**10.05%**

COMMENTS ABOUT THE LEGACY AIR CARRIERS INDUSTRY

Average beta = 1.17
Weighted average beta = 1.17

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
American Airlines	$42.35	$0.40	-	-	-	-
Delta Air Lines	$50.69	$0.68	16.00%	45.00%	30.50%	31.84%
United Cont'l Hldgs.	$57.30	-	24.50%	-	24.50%	-

Indicated Rate **31.84%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
American Airlines	$42.35	$0.40	-	0.90%	-	-
Delta Air Lines	$50.69	$0.68	23.00%	80.74%	18.57%	19.91%
United Cont'l Hldgs.	$57.30	-	-	1.00%	-	-

Indicated Rate **19.91%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
American Airlines	20,561.0	935.0	2.27%	18,294.6	31,306.8	-	-	42.35	624.6	26,452.8
Delta Air Lines	8,801.0	525.0	2.98%	9,338.1	18,238.6	-	-	50.69	778.8	39,476.6
United Cont'l Hldgs.	12,121.0	700.0	2.89%	12,582.3	26,056.9	-	-	57.30	364.6	20,892.1
Total					**75,602.2**		**-**			**86,821.5**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
American Airlines	54.20%	45.80%
Delta Air Lines	31.60%	68.40%
United Cont'l Hldgs.	55.50%	44.50%
Mean	**47.10%**	**52.90%**
Weighted Mean	**46.55%**	**53.45%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt = Disclosed Fair Value of Debt from 10-k + present value estimate of Operating Lease Obligations.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	9.92%
CAPM: Supply Side	8.93%
CAPM: Implied ERP	9.00%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	8.43%
DGM: Earnings & Dividend	26.05%
DGM: Plowback Ratio	20.17%
Reconciled Equity Rate	**10.34%**
Debt/Equity Structure	**25.00% / 75.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	1.05
Industry Risk Premium	7.25%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.92%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	1.05
Industry Risk Premium	6.26%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.93%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Alaska Air Group	38.00%	0.78 (A)	1.05
Allegiant Travel	37.00%	0.89 (B++)	0.70
Hawaiian Hldgs.	39.24%	1.11 (B)	1.05
JetBlue Airways	39.27%	1.00 (B+)	1.10
Southwest Airlines	37.45%	0.78 (A)	1.05
Spirit Airlines	36.13%	0.89 (B++)	1.20
Selected	**38.50%**	**0.83**	**1.05**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	1.05
Industry Risk Premium	6.33%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.00%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	0.83
Industry Risk Premium	5.76%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.43%**

COMMENTS ABOUT THE DISCOUNT AIR CARRIERS INDUSTRY

Average beta = 1.03
Weighted average beta = 1.05
Average financial strength = 0.91
Weighted average financial strength = 0.83

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Alaska Air Group	$80.51	$0.80	18.50%	36.50%	27.50%	28.49%
Allegiant Travel	$167.83	$1.20	19.00%	-	19.00%	19.72%
Hawaiian Hldgs.	$35.33	-	25.50%	-	25.50%	-
JetBlue Airways	$22.65	-	31.00%	-	31.00%	-
Southwest Airlines	$43.06	$0.30	29.00%	29.50%	29.25%	29.95%
Spirit Airlines	$39.85	-	15.50%	-	15.50%	-

Indicated Rate **26.05%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Alaska Air Group	$80.51	$0.80	25.50%	82.35%	21.00%	21.99%
Allegiant Travel	$167.83	$1.20	17.50%	91.28%	15.97%	16.69%
Hawaiian Hldgs.	$35.33	-	34.00%	100.00%	34.00%	-
JetBlue Airways	$22.65	-	25.00%	92.73%	23.18%	-
Southwest Airlines	$43.06	$0.30	24.00%	88.00%	21.12%	21.82%
Spirit Airlines	$39.85	-	26.50%	100.00%	26.50%	-

Indicated Rate **20.17%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Alaska Air Group	710.0	35.0	2.46%	664.5	1,855.5	-	-	80.51	125.2	10,077.9
Allegiant Travel	635.8	15.0	1.18%	397.7	677.7	-	-	167.83	16.8	2,820.0
Hawaiian Hldgs.	914.4	45.0	2.46%	854.9	1,334.8	-	-	35.33	53.4	1,886.7
JetBlue Airways	1,982.0	115.0	2.90%	2,063.9	3,083.4	-	-	22.65	322.0	7,293.3
Southwest Airlines	2,668.0	120.0	2.25%	2,357.9	6,533.6	-	-	43.06	647.6	27,885.7
Spirit Airlines	537.9	35.0	3.25%	605.9	1,799.0	-	-	39.85	71.5	2,850.9
Total				**15,284.1**		**-**				**52,814.5**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Alaska Air Group	15.55%	84.45%
Allegiant Travel	19.37%	80.63%
Hawaiian Hldgs.	41.43%	58.57%
JetBlue Airways	29.71%	70.29%
Southwest Airlines	18.98%	81.02%
Spirit Airlines	38.69%	61.31%
Mean	**27.29%**	**72.71%**
Weighted Mean	**22.44%**	**77.56%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt = Disclosed Fair Value of Debt from 10-k + present value estimate of Operating Lease Obligations.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

\+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	10.61%
CAPM: Supply Side	9.52%
CAPM: Implied ERP	9.60%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	10.33%
DGM: Earnings & Dividend	18.34%
DGM: Plowback Ratio	7.33%
Reconciled Equity Rate	**10.95%**
Debt/Equity Structure	**75.00% / 25.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	1.15
Industry Risk Premium	7.94%
Add: Risk-Free Rate	2.67%
Indicated Rate	**10.61%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	1.15
Industry Risk Premium	6.85%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.52%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
SkyWest	NMF	1.11 (B)	1.15
Selected	**38.50%**	**1.11**	**1.15**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	1.15
Industry Risk Premium	6.93%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.60%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	1.11
Industry Risk Premium	7.66%
Add: Risk-Free Rate	2.67%
Indicated Rate	**10.33%**

COMMENTS ABOUT THE REGIONAL AIR CARRIERS INDUSTRY

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
SkyWest	$19.02	$0.16	31.00%	4.00%	17.50%	18.34%

Indicated Rate **18.34%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
SkyWest	$19.02	$0.16	7.00%	92.73%	6.49%	7.33%

Indicated Rate **7.33%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
SkyWest	2,107.8	110.0	2.61%	2,046.4	2,939.8	-	-	19.02	51.0	970.0
Total					**2,939.8**		**-**			**970.0**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
SkyWest	75.19%	24.81%
Mean	**75.19%**	**24.81%**
Weighted Mean	**75.19%**	**24.81%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt = Disclosed Fair Value of Debt from 10-k + present value estimate of Operating Lease Obligations.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

\+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	9.92%
CAPM: Supply Side	8.93%
CAPM: Implied ERP	9.00%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	8.05%
DGM: Earnings & Dividend	29.95%
DGM: Plowback Ratio	21.82%
Reconciled Equity Rate	**10.38%**
Debt/Equity Structure	**20.00% / 80.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	1.05
Industry Risk Premium	7.25%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.92%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	1.05
Industry Risk Premium	6.26%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.93%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Southwest Airlines	37.45%	0.78 (A)	1.05
Selected	**38.50%**	**0.78**	**1.05**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	1.05
Industry Risk Premium	6.33%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.00%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	0.78
Industry Risk Premium	5.38%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.05%**

COMMENTS ABOUT THE SOUTHWEST AIRLINES INDUSTRY

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Southwest Airlines	$43.06	$0.30	29.00%	29.50%	29.25%	29.95%

Indicated Rate **29.95%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Southwest Airlines	$43.06	$0.30	24.00%	88.00%	21.12%	21.82%

Indicated Rate **21.82%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Southwest Airlines	2,668.0	120.0	2.25%	2,357.9	6,533.6	-	-	43.06	647.6	27,885.7
Total					**6,533.6**		**-**			**27,885.7**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Southwest Airlines	18.98%	81.02%
Mean	**18.98%**	**81.02%**
Weighted Mean	**18.98%**	**81.02%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt = Disclosed Fair Value of Debt from 10-k + present value estimate of Operating Lease Obligations.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

\+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	9.14%
CAPM: Supply Side	8.26%
CAPM: Implied ERP	8.32%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	7.48%
DGM: Earnings & Dividend	14.93%
DGM: Plowback Ratio	16.71%
Reconciled Equity Rate	**9.65%**
Debt/Equity Structure	**25.00% / 75.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	0.94
Industry Risk Premium	6.47%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.14%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	0.94
Industry Risk Premium	5.59%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.26%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Atlas Air Worldwide	NMF	1.00 (B+)	1.35
FedEx Corp.	36.08%	0.56 (A++)	1.05
United Parcel Serv.	35.47%	0.78 (A)	0.85
Selected	**38.50%**	**0.70**	**0.94**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	0.94
Industry Risk Premium	5.65%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.32%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	0.70
Industry Risk Premium	4.81%
Add: Risk-Free Rate	2.67%
Indicated Rate	**7.48%**

COMMENTS ABOUT THE FREIGHT AIR CARRIERS INDUSTRY

Average beta = 1.08
Weighted average beta = 0.94
Average financial strength = 0.78
Weighted average financial strength = 0.70

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Atlas Air Worldwide	$41.34	-	6.50%	-	6.50%	-
FedEx Corp.	$173.22	$1.00	15.00%	17.00%	16.00%	16.58%
United Parcel Serv.	$96.23	$3.16	10.50%	9.50%	10.00%	13.28%

Indicated Rate **14.93%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Atlas Air Worldwide	$41.34	-	7.50%	100.00%	7.50%	-
FedEx Corp.	$173.22	$1.00	18.00%	89.64%	16.14%	16.71%
United Parcel Serv.	$96.23	$3.16	-	84.71%	-	-

Indicated Rate **16.71%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Atlas Air Worldwide	1,794.8	105.0	2.93%	1,879.4	2,701.0	-	-	41.34	24.6	1,018.5
FedEx Corp.	7,258.0	235.0	1.62%	5,309.8	20,546.8	-	-	173.22	287.0	49,714.1
United Parcel Serv.	14,601.0	325.0	1.11%	8,897.2	16,657.7	-	-	96.23	886.0	85,259.8
Total					**39,905.5**	**-**				**135,992.4**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Atlas Air Worldwide	72.62%	27.38%
FedEx Corp.	29.24%	70.76%
United Parcel Serv.	16.34%	83.66%
Mean	**39.40%**	**60.60%**
Weighted Mean	**22.69%**	**77.31%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt = Disclosed Fair Value of Debt from 10-k + present value estimate of Operating Lease Obligations.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	8.05%
CAPM: Supply Side	7.32%
CAPM: Implied ERP	7.37%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	8.33%
DGM: Earnings & Dividend	8.82%
DGM: Plowback Ratio	7.00%
Reconciled Equity Rate	**8.44%**
Debt/Equity Structure	**40.00% / 60.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	0.78
Industry Risk Premium	5.38%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.05%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	0.78
Industry Risk Premium	4.65%
Add: Risk-Free Rate	2.67%
Indicated Rate	**7.32%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Alliant Energy	NMF	0.78 (A)	0.80
Avista Corp.	37.62%	0.78 (A)	0.80
Cleco Corp.	30.25%	0.78 (A)	0.75
CMS Energy Corp.	34.29%	0.89 (B++)	0.75
Empire Dist. Elec.	36.89%	0.89 (B++)	0.70
Eversource Energy	36.15%	0.78 (A)	0.75
G't Plains Energy	32.27%	1.00 (B+)	0.85
OGE Energy	30.39%	0.78 (A)	0.95
Pinnacle West Capital	34.25%	0.67 (A+)	0.75
Portland General	25.96%	0.89 (B++)	0.80
TECO Energy	38.29%	0.89 (B++)	0.85
Vectren Corp.	32.70%	0.78 (A)	0.75
WEC Energy Group	38.03%	0.67 (A+)	0.70
Westar Energy	31.94%	0.89 (B++)	0.75
Mean	**33.77%**	**0.82**	**0.78**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	0.78
Industry Risk Premium	4.70%
Add: Risk-Free Rate	2.67%
Indicated Rate	**7.37%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	0.82
Industry Risk Premium	5.66%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.33%**

COMMENTS ABOUT THE ELECTRIC UTILITIES INDUSTRY

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Alliant Energy	$62.45	$2.20	5.50%	7.00%	6.25%	9.77%
Avista Corp.	$35.37	$1.36	5.00%	4.00%	4.50%	8.35%
Cleco Corp.	$52.21	$1.60	0.50%	4.00%	2.25%	5.31%
CMS Energy Corp.	$36.08	$1.24	5.50%	6.50%	6.00%	9.44%
Empire Dist. Elec.	$28.07	$1.04	3.00%	2.00%	2.50%	6.21%
Eversource Energy	$51.07	$1.78	8.50%	6.50%	7.50%	10.99%
G't Plains Energy	$27.31	$1.06	5.00%	5.00%	5.00%	8.88%
OGE Energy	$26.29	$1.16	3.00%	10.00%	6.50%	10.91%
Pinnacle West Capital	$64.48	$2.50	4.00%	3.50%	3.75%	7.63%
Portland General	$36.37	$1.24	6.00%	5.50%	5.75%	9.16%
TECO Energy	$26.65	$0.90	5.50%	2.00%	3.75%	7.13%
Vectren Corp.	$42.42	$1.60	9.50%	4.00%	6.75%	10.52%
WEC Energy Group	$51.31	$1.98	6.00%	8.50%	7.25%	11.11%
Westar Energy	$42.41	$1.44	5.50%	4.00%	4.75%	8.15%
Indicated Rate						**8.82%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Alliant Energy	$62.45	$2.20	11.00%	37.36%	4.11%	7.63%
Avista Corp.	$35.37	$1.36	8.00%	30.67%	2.45%	6.30%
Cleco Corp.	$52.21	$1.60	8.00%	34.55%	2.76%	5.83%
CMS Energy Corp.	$36.08	$1.24	13.50%	33.33%	4.50%	7.94%
Empire Dist. Elec.	$28.07	$1.04	7.50%	34.29%	2.57%	6.28%
Eversource Energy	$51.07	$1.78	8.50%	44.00%	3.74%	7.23%
G't Plains Energy	$27.31	$1.06	6.00%	40.00%	2.40%	6.28%
OGE Energy	$26.29	$1.16	10.50%	31.11%	3.27%	7.68%
Pinnacle West Capital	$64.48	$2.50	9.00%	34.44%	3.10%	6.98%
Portland General	$36.37	$1.24	7.50%	45.45%	3.41%	6.82%
TECO Energy	$26.65	$0.90	9.50%	28.57%	2.71%	6.09%
Vectren Corp.	$42.42	$1.60	11.50%	44.62%	5.13%	8.90%
WEC Energy Group	$51.31	$1.98	7.50%	34.29%	2.57%	6.43%
Westar Energy	$42.41	$1.44	9.50%	45.16%	4.29%	7.69%
Indicated Rate						**7.00%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Alliant Energy	3,967.9	175.0	2.21%	3,425.8	4,336.1	10.2	-	62.45	110.9	6,925.7
Avista Corp.	1,666.3	71.4	2.14%	1,413.6	1,659.0	-	-	35.37	62.2	2,200.0
Cleco Corp.	1,226.6	69.4	2.83%	1,242.5	1,447.0	-	-	52.21	60.4	3,153.5
CMS Energy Corp.	8,823.0	365.0	2.07%	7,328.2	9,739.0	2.0	-	36.08	275.2	9,929.2
Empire Dist. Elec.	879.6	43.9	2.50%	820.6	823.0	-	-	28.07	43.5	1,221.0
Eversource Energy	9,922.2	376.3	1.90%	7,831.4	9,426.0	7.6	-	51.07	317.0	16,189.2
G't Plains Energy	4,105.7	188.9	2.30%	3,638.5	4,046.0	1.6	-	27.31	154.2	4,211.2
OGE Energy	2,755.5	138.8	2.52%	2,586.1	2,999.0	-	-	26.29	199.4	5,242.2
Pinnacle West Capital	3,725.8	159.6	2.14%	3,160.1	4,107.0	-	-	64.48	110.6	7,131.5
Portland General	2,204.0	115.0	2.61%	2,116.2	2,455.0	-	-	36.37	78.2	2,844.1
TECO Energy	3,937.3	161.3	2.05%	3,251.3	4,062.0	-	-	26.65	234.9	6,260.1
Vectren Corp.	1,721.7	75.0	2.18%	1,475.3	1,910.0	-	-	42.42	82.6	3,503.9
WEC Energy Group	9,994.5	445.8	2.23%	8,688.9	9,741.0	4.3	-	51.31	225.5	11,570.4
Westar Energy	3,245.5	120.0	1.85%	2,524.6	3,523.0	-	-	42.41	131.7	5,585.4
Total				**60,273.1**			**-**			**85,967.4**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Alliant Energy	38.50%	61.50%
Avista Corp.	42.99%	57.01%
Cleco Corp.	31.45%	68.55%
CMS Energy Corp.	49.52%	50.48%
Empire Dist. Elec.	40.26%	59.74%
Eversource Energy	36.80%	63.20%
G't Plains Energy	49.00%	51.00%
OGE Energy	36.39%	63.61%
Pinnacle West Capital	36.54%	63.46%
Portland General	46.33%	53.67%
TECO Energy	39.35%	60.65%
Vectren Corp.	35.28%	64.72%
WEC Energy Group	45.71%	54.29%
Westar Energy	38.68%	61.32%
Mean	**40.49%**	**59.51%**
Weighted Mean	**41.22%**	**58.78%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt taken from 12-31-15 SEC filings.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.55% (Utility Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

\+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	7.78%
CAPM: Supply Side	7.08%
CAPM: Implied ERP	7.13%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	8.54%
DGM: Earnings & Dividend	9.12%
DGM: Plowback Ratio	8.06%
Reconciled Equity Rate	**8.10%**
Debt/Equity Structure	**40.00% / 60.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	0.74
Industry Risk Premium	5.11%
Add: Risk-Free Rate	2.67%
Indicated Rate	**7.78%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	0.74
Industry Risk Premium	4.41%
Add: Risk-Free Rate	2.67%
Indicated Rate	**7.08%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
AGL Resources	37.63%	0.78 (A)	0.60
Atmos Energy	39.22%	0.78 (A)	0.80
Laclede Group	27.63%	0.89 (B++)	0.70
NiSource Inc.	36.90%	1.00 (B+)	
Northwest Nat. Gas	41.50%	0.78 (A)	0.65
Piedmont Natural Gas	34.46%	0.89 (B++)	0.75
Questar Corp.	35.73%	0.78 (A)	0.85
Southwest Gas	35.70%	0.89 (B++)	0.80
Mean	**36.10%**	**0.85**	**0.74**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	0.74
Industry Risk Premium	4.46%
Add: Risk-Free Rate	2.67%
Indicated Rate	**7.13%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	0.85
Industry Risk Premium	5.87%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.54%**

COMMENTS ABOUT THE NATURAL GAS UTILITIES INDUSTRY

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
AGL Resources	$63.81	$2.04	6.50%	4.50%	5.50%	8.70%
Atmos Energy	$63.04	$1.70	7.00%	5.50%	6.25%	8.95%
Laclede Group	$59.41	$1.96	10.00%	4.50%	7.25%	10.55%
NiSource Inc.	$19.51	$0.62	-1.50%	-3.50%	-2.50%	-
Northwest Nat. Gas	$50.61	$1.87	7.00%	2.50%	4.75%	8.44%
Piedmont Natural Gas	$57.02	$1.32	3.00%	3.00%	3.00%	5.31%
Questar Corp.	$19.48	$0.88	6.00%	7.50%	6.75%	11.27%
Southwest Gas	$55.16	$1.71	7.00%	8.00%	7.50%	10.60%

Indicated Rate **9.12%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
AGL Resources	$63.81	$2.04	12.50%	48.39%	6.05%	9.25%
Atmos Energy	$63.04	$1.70	10.50%	48.68%	5.11%	7.81%
Laclede Group	$59.41	$1.96	8.50%	47.62%	4.05%	7.35%
NiSource Inc.	$19.51	$0.62	9.50%	42.86%	4.07%	7.25%
Northwest Nat. Gas	$50.61	$1.87	10.00%	36.36%	3.64%	7.33%
Piedmont Natural Gas	$57.02	$1.32	10.50%	30.00%	3.15%	5.46%
Questar Corp.	$19.48	$0.88	17.00%	37.14%	6.31%	10.83%
Southwest Gas	$55.16	$1.71	11.50%	53.33%	6.13%	9.23%

Indicated Rate **8.06%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
AGL Resources	4,963.0	181.0	1.82%	3,876.1	5,076.0	-	-	63.81	120.4	7,681.7
Atmos Energy	2,707.3	145.0	2.68%	2,673.3	3,430.0	-	-	63.04	102.1	6,436.8
Laclede Group	2,189.5	70.0	1.60%	1,591.0	2,294.0	-	-	59.41	43.4	2,579.8
NiSource Inc.	6,683.3	450.0	3.37%	7,711.1	7,779.0	-	-	19.51	319.1	6,225.8
Northwest Nat. Gas	846.9	45.0	2.66%	831.9	938.0	-	-	50.61	27.4	1,388.1
Piedmont Natural Gas	1,794.5	61.6	1.72%	1,355.1	-	-	-	57.02	77.9	4,441.9
Questar Corp.	1,586.2	45.0	1.42%	1,083.6	1,777.0	-	-	19.48	176.0	3,428.5
Southwest Gas	1,560.2	72.0	2.31%	1,400.9	1,667.0	-	-	55.16	46.5	2,566.2
Total				**24,316.1**		**-**				**34,748.8**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
AGL Resources	39.79%	60.21%
Atmos Energy	34.76%	65.24%
Laclede Group	47.07%	52.93%
NiSource Inc.	55.55%	44.45%
Northwest Nat. Gas	40.33%	59.67%
Piedmont Natural Gas	23.38%	76.62%
Questar Corp.	34.14%	65.86%
Southwest Gas	39.38%	60.62%
Mean	**39.30%**	**60.70%**
Weighted Mean	**41.17%**	**58.83%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt taken from 12-31-15 SEC filings.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

\+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	9.78%
CAPM: Supply Side	8.81%
CAPM: Implied ERP	8.88%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	9.36%
DGM: Earnings & Dividend	17.13%
DGM: Plowback Ratio	9.85%
Reconciled Equity Rate	**12.72%**
Debt/Equity Structure	**45.00% / 55.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	1.03
Industry Risk Premium	7.11%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.78%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	1.03
Industry Risk Premium	6.14%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.81%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
DCP Midstream Partners	NMF	1.00 (B+)	1.10
Energy Transfer	NMF	0.89 (B++)	0.80
Enterprise Products	NMF	1.00 (B+)	1.00
Kinder Morgan Inc.	20.96%	1.11 (B)	1.00
ONEOK Inc.	32.10%	1.00 (B+)	1.15
ONEOK Partners L.P.	NMF	0.89 (B++)	0.85
Spectra Energy	22.94%	1.11 (B)	1.05
TransCanada Corp.	29.43%	0.78 (A)	0.95
Williams Cos.	31.38%	1.00 (B+)	1.35
Williams Partners L.P.	NMF	0.89 (B++)	1.00
Mean	**27.36%**	**0.97**	**1.03**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	1.03
Industry Risk Premium	6.21%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.88%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	0.97
Industry Risk Premium	6.69%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.36%**

COMMENTS ABOUT THE NATURAL GAS PIPELINES INDUSTRY

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
DCP Midstream Partners	$24.67	$3.12	5.00%	4.00%	4.50%	17.15%
Energy Transfer	$33.73	$4.22	13.00%	4.50%	8.75%	21.26%
Enterprise Products	$25.58	$1.59	9.00%	8.50%	8.75%	14.97%
Kinder Morgan Inc.	$14.92	$0.50	13.00%	9.00%	11.00%	14.35%
ONEOK Inc.	$24.66	$2.63	9.50%	12.50%	11.00%	21.67%
ONEOK Partners L.P.	$30.13	$3.16	-1.00%	4.00%	1.50%	11.99%
Spectra Energy	$23.94	$1.48	5.00%	8.00%	6.50%	12.68%
TransCanada Corp.	$32.59	$2.08	11.00%	4.50%	7.75%	14.13%
Williams Cos.	$25.70	$2.56	16.00%	16.00%	16.00%	25.96%
Williams Partners L.P.	$27.85	$3.44	7.50%	2.00%	4.75%	17.10%

Indicated Rate **17.13%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
DCP Midstream Partners	$24.67	$3.12	9.50%	-26.32%	-2.50%	-
Energy Transfer	$33.73	$4.22	17.50%	-50.00%	-8.75%	-
Enterprise Products	$25.58	$1.59	22.00%	8.33%	1.83%	8.05%
Kinder Morgan Inc.	$14.92	$0.50	11.00%	-44.44%	-4.89%	-
ONEOK Inc.	$24.66	$2.63	52.00%	-15.79%	-8.21%	-
ONEOK Partners L.P.	$30.13	$3.16	12.50%	-46.12%	-5.77%	-
Spectra Energy	$23.94	$1.48	15.50%	2.44%	0.38%	6.56%
TransCanada Corp.	$32.59	$2.08	12.00%	41.56%	4.99%	11.37%
Williams Cos.	$25.70	$2.56	15.50%	-70.45%	-10.92%	-
Williams Partners L.P.	$27.85	$3.44	14.00%	7.78%	1.09%	13.44%

Indicated Rate **9.85%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
DCP Midstream Partners	2,429.0	90.0	1.85%	1,914.2	2,025.0	-	-	24.67	114.7	2,830.7
Energy Transfer	27,450.0	860.0	1.57%	19,734.4	25,710.0	-	-	33.73	505.6	17,055.4
Enterprise Products	22,460.1	911.0	2.03%	18,651.4	21,331.0	-	-	25.58	2,012.6	51,481.1
Kinder Morgan Inc.	44,600.0	1,700.0	1.91%	35,720.1	37,481.0	-	-	14.92	2,125.1	31,707.2
ONEOK Inc.	8,721.7	380.0	2.18%	7,559.7	7,981.0	-	-	24.66	209.7	5,172.0
ONEOK Partners L.P.	7,090.5	336.7	2.37%	6,481.2	6,749.0	-	-	30.13	212.8	6,412.8
Spectra Energy	14,241.0	750.0	2.63%	13,908.1	15,003.0	-	-	23.94	671.0	16,063.7
TransCanada Corp.	23,091.8	700.0	1.52%	16,317.8	-	-	-	32.59	703.0	22,910.8
Williams Cos.	23,712.0	1,000.0	2.11%	20,152.7	19,607.0	-	-	25.70	749.0	19,249.3
Williams Partners L.P.	19,144.0	714.0	1.86%	15,142.7	15,988.0	-	-	27.85	588.5	16,391.0
Total				**168,192.8**		**-**				**189,274.0**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
DCP Midstream Partners	41.70%	58.30%
Energy Transfer	60.12%	39.88%
Enterprise Products	29.30%	70.70%
Kinder Morgan Inc.	54.17%	45.83%
ONEOK Inc.	60.68%	39.32%
ONEOK Partners L.P.	51.28%	48.72%
Spectra Energy	48.29%	51.71%
TransCanada Corp.	41.60%	58.40%
Williams Cos.	50.46%	49.54%
Williams Partners L.P.	49.38%	50.62%
Mean	**48.70%**	**51.30%**
Weighted Mean	**47.05%**	**52.95%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt taken from 12-31-15 SEC filings.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

\+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	9.16%
CAPM: Supply Side	8.27%
CAPM: Implied ERP	8.34%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	9.43%
DGM: Earnings & Dividend	17.69%
DGM: Plowback Ratio	10.25%
Reconciled Equity Rate	**12.58%**
Debt/Equity Structure	**40.00% / 60.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	0.94
Industry Risk Premium	6.49%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.16%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	0.94
Industry Risk Premium	5.60%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.27%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Buckeye Partners L.P.	NMF	1.00 (B+)	0.85
Energy Transfer	NMF	0.89 (B++)	0.80
Enterprise Products	NMF	1.00 (B+)	1.00
Kinder Morgan Inc.	20.96%	1.11 (B)	1.00
Magellan Midstream	NMF	0.89 (B++)	0.90
Plains All Amer. Pipe.	NMF	1.00 (B+)	0.95
Sunoco Logistics Part.	NMF	1.00 (B+)	1.05
Mean	**20.96%**	**0.98**	**0.94**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	0.94
Industry Risk Premium	5.67%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.34%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	0.98
Industry Risk Premium	6.76%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.43%**

COMMENTS ABOUT THE LIQUID PIPELINES INDUSTRY

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Buckeye Partners L.P.	$65.96	$4.83	9.50%	5.50%	7.50%	14.82%
Energy Transfer	$33.73	$4.22	13.00%	4.50%	8.75%	21.26%
Enterprise Products	$25.58	$1.59	9.00%	8.50%	8.75%	14.97%
Kinder Morgan Inc.	$14.92	$0.50	13.00%	9.00%	11.00%	14.35%
Magellan Midstream	$67.92	$3.25	10.50%	13.00%	11.75%	16.54%
Plains All Amer. Pipe.	$23.10	$2.83	8.00%	8.00%	8.00%	20.25%
Sunoco Logistics Part.	$25.70	$1.83	8.50%	20.50%	14.50%	21.62%

Indicated Rate **17.69%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Buckeye Partners L.P.	$65.96	$4.83	16.50%	-12.50%	-2.06%	-
Energy Transfer	$33.73	$4.22	17.50%	-50.00%	-8.75%	-
Enterprise Products	$25.58	$1.59	22.00%	8.33%	1.83%	8.05%
Kinder Morgan Inc.	$14.92	$0.50	11.00%	-44.44%	-4.89%	-
Magellan Midstream	$67.92	$3.25	34.50%	12.00%	4.14%	8.93%
Plains All Amer. Pipe.	$23.10	$2.83	17.50%	8.75%	1.53%	13.78%
Sunoco Logistics Part.	$25.70	$1.83	8.00%	-56.52%	-4.52%	-

Indicated Rate **10.25%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Buckeye Partners L.P.	3,781.3	165.0	2.18%	3,280.5	3,530.0	-	-	65.96	129.5	8,543.4
Energy Transfer	27,450.0	860.0	1.57%	19,734.4	25,710.0	-	-	33.73	505.6	17,055.4
Enterprise Products	22,460.1	911.0	2.03%	18,651.4	21,331.0	-	-	25.58	2,012.6	51,481.1
Kinder Morgan Inc.	44,600.0	1,700.0	1.91%	35,720.1	37,481.0	-	-	14.92	2,125.1	31,707.2
Magellan Midstream	3,407.1	146.0	2.14%	2,923.6	3,285.0	-	-	67.92	227.4	15,446.8
Plains All Amer. Pipe.	10,651.0	475.0	2.23%	9,364.1	10,276.0	-	-	23.10	397.7	9,187.5
Sunoco Logistics Part.	4,944.0	200.0	2.02%	4,099.2	4,691.0	-	-	25.70	268.8	6,909.4
Total				**106,304.0**		**-**				**140,330.8**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Buckeye Partners L.P.	29.24%	70.76%
Energy Transfer	60.12%	39.88%
Enterprise Products	29.30%	70.70%
Kinder Morgan Inc.	54.17%	45.83%
Magellan Midstream	17.54%	82.46%
Plains All Amer. Pipe.	52.80%	47.20%
Sunoco Logistics Part.	40.44%	59.56%
Mean	**40.51%**	**59.49%**
Weighted Mean	**43.10%**	**56.90%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt taken from 12-31-15 SEC filings.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

\+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	9.98%
CAPM: Supply Side	8.99%
CAPM: Implied ERP	9.06%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	8.05%
DGM: Earnings & Dividend	12.48%
DGM: Plowback Ratio	17.96%
Reconciled Equity Rate	**11.80%**
Debt/Equity Structure	**20.00% / 80.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	1.06
Industry Risk Premium	7.31%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.98%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	1.06
Industry Risk Premium	6.32%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.99%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Can. National Railway	27.66%	0.78 (A)	0.95
Can. Pacific Railway	27.55%	0.89 (B++)	1.10
CSX Corp.	36.70%	0.89 (B++)	1.15
Norfolk Southern	36.18%	0.78 (A)	1.05
Union Pacific	37.91%	0.56 (A++)	1.05
Mean	**33.20%**	**0.78**	**1.06**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	1.06
Industry Risk Premium	6.39%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.06%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	0.78
Industry Risk Premium	5.38%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.05%**

COMMENTS ABOUT THE RAILROAD & TERMINAL INDUSTRY

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Can. National Railway	$55.88	$0.95	8.50%	12.00%	10.25%	11.95%
Can. Pacific Railway	$127.60	$1.06	14.00%	12.00%	13.00%	13.83%
CSX Corp.	$25.95	$0.72	9.00%	10.00%	9.50%	12.27%
Norfolk Southern	$84.59	$2.36	8.00%	6.50%	7.25%	10.04%
Union Pacific	$78.20	$2.20	10.00%	13.00%	11.50%	14.31%

Indicated Rate **12.48%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Can. National Railway	$55.88	$0.95	21.00%	66.70%	14.01%	15.71%
Can. Pacific Railway	$127.60	$1.06	32.00%	80.30%	25.70%	26.53%
CSX Corp.	$25.95	$0.72	18.50%	66.50%	12.30%	15.08%
Norfolk Southern	$84.59	$2.36	16.50%	67.90%	11.20%	13.99%
Union Pacific	$78.20	$2.20	25.00%	62.80%	15.70%	18.51%

Indicated Rate **17.96%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Can. National Railway	7,970.0	338.0	2.12%	6,796.4	-	-	-	55.88	809.3	45,223.7
Can. Pacific Railway	6,594.0	313.0	2.37%	6,025.9	-	-	-	127.60	166.1	21,194.4
CSX Corp.	10,106.0	544.0	2.69%	10,011.9	11,340.0	-	-	25.95	966.0	25,067.7
Norfolk Southern	9,396.0	500.0	2.66%	9,238.7	11,326.0	-	-	84.59	297.8	25,189.6
Union Pacific	13,319.0	500.0	1.88%	10,574.5	15,200.0	-	-	78.20	849.2	66,408.3
Total				**50,688.3**		**-**				**183,083.7**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Can. National Railway	13.06%	86.94%
Can. Pacific Railway	22.14%	77.86%
CSX Corp.	31.15%	68.85%
Norfolk Southern	31.02%	68.98%
Union Pacific	18.63%	81.37%
Mean	**23.20%**	**76.80%**
Weighted Mean	**21.68%**	**78.32%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt taken from 12-31-15 SEC filings.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

\+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	10.33%
CAPM: Supply Side	9.29%
CAPM: Implied ERP	9.36%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	8.26%
DGM: Earnings & Dividend	12.95%
DGM: Plowback Ratio	17.03%
Reconciled Equity Rate	**11.99%**
Debt/Equity Structure	**20.00% / 80.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	1.11
Industry Risk Premium	7.66%
Add: Risk-Free Rate	2.67%
Indicated Rate	**10.33%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	1.11
Industry Risk Premium	6.62%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.29%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Can. National Railway	27.66%	0.78 (A)	0.95
Can. Pacific Railway	27.55%	0.89 (B++)	1.10
CSX Corp.	36.70%	0.89 (B++)	1.15
Genesee & Wyoming	36.59%	1.00 (B+)	1.30
Kansas City South'n	29.44%	0.78 (A)	1.15
Norfolk Southern	36.18%	0.78 (A)	1.05
Union Pacific	37.91%	0.56 (A++)	1.05
Selected	**33.15%**	**0.81**	**1.11**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	1.11
Industry Risk Premium	6.69%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.36%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	0.81
Industry Risk Premium	5.59%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.26%**

COMMENTS ABOUT THE RAILROAD - SHORTLINE INDUSTRY

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Can. National Railway	$55.88	$0.95	8.50%	12.00%	10.25%	11.95%
Can. Pacific Railway	$127.60	$1.06	14.00%	12.00%	13.00%	13.83%
CSX Corp.	$25.95	$0.72	9.00%	10.00%	9.50%	12.27%
Genesee & Wyoming	$53.69	-	15.00%	-	15.00%	-
Kansas City South'n	$74.67	$1.32	13.00%	14.00%	13.50%	15.27%
Norfolk Southern	$84.59	$2.36	8.00%	6.50%	7.25%	10.04%
Union Pacific	$78.20	$2.20	10.00%	13.00%	11.50%	14.31%

Indicated Rate **12.95%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Can. National Railway	$55.88	$0.95	21.00%	66.70%	14.01%	15.71%
Can. Pacific Railway	$127.60	$1.06	32.00%	80.30%	25.70%	26.53%
CSX Corp.	$25.95	$0.72	18.50%	66.50%	12.30%	15.08%
Genesee & Wyoming	$53.69	-	13.00%	100.00%	13.00%	-
Kansas City South'n	$74.67	$1.32	14.00%	75.60%	10.58%	12.35%
Norfolk Southern	$84.59	$2.36	16.50%	67.90%	11.20%	13.99%
Union Pacific	$78.20	$2.20	25.00%	62.80%	15.70%	18.51%

Indicated Rate **17.03%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Can. National Railway	7,970.0	338.0	2.12%	6,796.4	-	-	-	55.88	809.3	45,223.7
Can. Pacific Railway	6,594.0	313.0	2.37%	6,025.9	-	-	-	127.60	166.1	21,194.4
CSX Corp.	10,106.0	544.0	2.69%	10,011.9	11,340.0	-	-	25.95	966.0	25,067.7
Genesee & Wyoming	2,299.8	13.0	0.28%	940.1	2,283.0	-	-	53.69	57.7	3,100.0
Kansas City South'n	2,344.8	60.0	1.28%	1,523.1	2,396.0	-	-	74.67	108.5	8,098.8
Norfolk Southern	9,396.0	500.0	2.66%	9,238.7	11,326.0	-	-	84.59	297.8	25,190.5
Union Pacific	13,319.0	500.0	1.88%	10,574.5	15,200.0	-	-	78.20	849.2	66,408.3
Total				**55,367.3**		**-**				**194,283.4**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Can. National Railway	13.06%	86.94%
Can. Pacific Railway	22.14%	77.86%
CSX Corp.	31.15%	68.85%
Genesee & Wyoming	42.41%	57.59%
Kansas City South'n	22.83%	77.17%
Norfolk Southern	31.02%	68.98%
Union Pacific	18.63%	81.37%
Mean	**25.89%**	**74.11%**
Weighted Mean	**22.18%**	**77.82%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt taken from 12-31-15 SEC filings.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

\+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	8.19%
CAPM: Supply Side	7.44%
CAPM: Implied ERP	7.49%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	7.64%
DGM: Earnings & Dividend	9.23%
DGM: Plowback Ratio	11.05%
Reconciled Equity Rate	**8.72%**
Debt/Equity Structure	**40.00% / 60.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	0.80
Industry Risk Premium	5.52%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.19%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	0.80
Industry Risk Premium	4.77%
Add: Risk-Free Rate	2.67%
Indicated Rate	**7.44%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
AT&T Inc.	34.56%	0.56 (A++)	0.75
Sprint Corp.	NMF	1.22 (C++)	1.30
T-Mobile US	NMF	1.11 (B)	1.00
Verizon Communic.	29.90%	0.56 (A++)	0.75
Selected	**32.23%**	**0.72**	**0.80**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	0.80
Industry Risk Premium	4.82%
Add: Risk-Free Rate	2.67%
Indicated Rate	**7.49%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	0.72
Industry Risk Premium	4.97%
Add: Risk-Free Rate	2.67%
Indicated Rate	**7.64%**

COMMENTS ABOUT THE WIRELESS TELECOMS INDUSTRY

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
AT&T Inc.	$34.41	$1.92	5.50%	2.50%	4.00%	9.58%
Sprint Corp.	$3.62	-	-	-	-	-
T-Mobile US	$39.12	-	-	-	-	-
Verizon Communic.	$46.22	$2.26	5.50%	2.50%	4.00%	8.89%

Indicated Rate **9.23%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
AT&T Inc.	$34.41	$1.92	15.00%	37.91%	5.69%	11.27%
Sprint Corp.	$3.62	-	5.50%	-	-	-
T-Mobile US	$39.12	-	10.50%	-	-	-
Verizon Communic.	$46.22	$2.26	13.00%	45.78%	5.95%	10.84%

Indicated Rate **11.05%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
AT&T Inc.	126,930.0	6,000.0	2.36%	115,692.1	129,881.0	-	-	34.41	6,144.9	211,447.4
Sprint Corp.	33,965.0	2,000.0	2.94%	35,722.6	27,563.0	-	-	3.62	3,970.0	14,371.4
T-Mobile US	24,684.0	1,320.0	2.67%	24,348.9	30,595.0	-	-	39.12	818.4	32,015.5
Verizon Communic.	112,324.0	1,795.0	0.80%	59,927.2	119,173.0	-	-	46.22	4,073.2	188,262.2
Total					**307,212.0**		**-**			**446,096.5**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
AT&T Inc.	38.05%	61.95%
Sprint Corp.	65.73%	34.27%
T-Mobile US	48.87%	51.13%
Verizon Communic.	38.76%	61.24%
Mean	**47.85%**	**52.15%**
Weighted Mean	**40.78%**	**59.22%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt taken from 12-31-15 SEC filings.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

\+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	9.78%
CAPM: Supply Side	8.81%
CAPM: Implied ERP	8.88%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	10.33%
DGM: Earnings & Dividend	17.29%
DGM: Plowback Ratio	10.59%
Reconciled Equity Rate	**9.66%**
Debt/Equity Structure	**65.00% / 35.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	1.03
Industry Risk Premium	7.11%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.78%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	1.03
Industry Risk Premium	6.14%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.81%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
CenturyLink Inc.	30.45%	0.89 (B++)	0.90
Cincinnati Bell	NMF	1.33 (C+)	1.15
Frontier Communic.	36.45%	1.11 (B)	1.05
Mean	**33.45%**	**1.11**	**1.03**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	1.03
Industry Risk Premium	6.21%
Add: Risk-Free Rate	2.67%
Indicated Rate	**8.88%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	1.11
Industry Risk Premium	7.66%
Add: Risk-Free Rate	2.67%
Indicated Rate	**10.33%**

COMMENTS ABOUT THE WIRELINE TELECOMS INDUSTRY

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
CenturyLink Inc.	$25.16	$2.16	15.00%	-2.00%	6.50%	15.09%
Cincinnati Bell	$3.60	-	-	-	-	-
Frontier Communic.	$4.67	$0.42	18.00%	3.00%	10.50%	19.49%

Indicated Rate **17.29%**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
CenturyLink Inc.	$25.16	$2.16	9.50%	33.54%	3.19%	11.77%
Cincinnati Bell	$3.60	-	-	-	-	-
Frontier Communic.	$4.67	$0.42	10.50%	4.00%	0.42%	9.41%

Indicated Rate **10.59%**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
CenturyLink Inc.	20,414.0	900.0	2.20%	17,821.8	19,891.0	-	-	25.16	543.8	13,682.0
Cincinnati Bell	1,248.7	55.0	2.20%	1,089.5	1,348.7	10.4	-	3.60	209.9	755.6
Frontier Communic.	16,113.0	695.0	2.16%	13,881.2	16,893.0	-	-	4.67	1,168.2	5,455.5
Total				**38,132.7**		**-**				**19,893.1**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
CenturyLink Inc.	59.25%	40.75%
Cincinnati Bell	64.09%	35.91%
Frontier Communic.	75.59%	24.41%
Mean	**66.31%**	**33.69%**
Weighted Mean	**65.72%**	**34.28%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt taken from 12-31-15 SEC filings.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

\+ Market Value of Pref. Equity: N/A (Baa)

RECONCILIATION

Equity Models	Equity Rate
CAPM: Rule 62 Compliant	10.61%
CAPM: Supply Side	9.52%
CAPM: Implied ERP	9.60%
CAPM: Total NYSE	N/A
CAPM: Deciles 1 & 2	N/A
Division's Risk Premium	10.74%
DGM: Earnings & Dividend	N/A
DGM: Plowback Ratio	N/A
Reconciled Equity Rate	**10.09%**
Debt/Equity Structure	**35.00% / 65.00%**

CAPM: RULE 62 COMPLIANT

Market Risk Premium	6.90%
x Industry Beta	1.15
Industry Risk Premium	7.94%
Add: Risk-Free Rate	2.67%
Indicated Rate	**10.61%**

CAPM: SUPPLY SIDE

Market Risk Premium	5.96%
x Industry Beta	1.15
Industry Risk Premium	6.85%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.52%**

GUIDELINE COMPANY INFORMATION SUMMARY

Company Name	Tax Rate	Relative Financial Strength	Beta
Level 3 Communic.	NMF	1.22 (C++)	1.15
Zayo Group Holdings	NMF	1.11 (B)	
Mean	**38.50%**	**1.17**	**1.15**

CAPM: IMPLIED ERP

Market Risk Premium	6.03%
x Industry Beta	1.15
Industry Risk Premium	6.93%
Add: Risk-Free Rate	2.67%
Indicated Rate	**9.60%**

DIVISION'S RISK PREMIUM

Market Risk Premium	6.90%
x Industry Financial Strength	1.17
Industry Risk Premium	8.07%
Add: Risk-Free Rate	2.67%
Indicated Rate	**10.74%**

COMMENTS ABOUT THE BROADBAND TELECOMS INDUSTRY

Implied market equity risk premium calculated based on S&P 500 two-stage DGM less 20-year Treasury Bond yield.

DIVIDEND GROWTH MODEL: EARNINGS AND DIVIDEND GROWTH

Company Name	Recent Stock Price	Next Year's Dividend	Projected Earnings Growth	Projected Dividend Growth	Market Growth Rate	D.G.M. Rate
Level 3 Communic.	$54.36	-	-	-	-	-
Zayo Group Holdings	$26.59	-	-	-	-	-

Indicated Rate **N/A**

DIVIDEND GROWTH MODEL: PLOWBACK RATIO

Company Name	Recent Stock Price	Next Year's Dividend	Return on Equity	Retention Rate	Market Growth Rate	D.G.M. Rate
Level 3 Communic.	$54.36	-	-	-	-	-
Zayo Group Holdings	$26.59	-	-	-	-	-

Indicated Rate **N/A**

CALCULATION OF CAPITAL STRUCTURE

Company Name	Total Debt	Long-Term Interest	Implied Coupon Rate*	Market Value of Debt**	Fair Value of Debt***	Pref'd Divs	MV of Pref Eqty+	Recent Stock Price	Shares Outstd	Market Value of Equity
Level 3 Communic.	11,013.0	654.0	2.97%	11,649.4	11,067.0	-	-	54.36	356.4	19,372.5
Zayo Group Holdings	3,704.1	220.0	2.97%	3,918.6	3,654.2	-	-	26.59	244.7	6,505.7
Total					**14,721.2**		**-**			**25,878.2**

CAPITAL STRUCTURE

Company Name	Percent Debt & Preferred Equity	Percent Common Equity
Level 3 Communic.	36.36%	63.64%
Zayo Group Holdings	35.97%	64.03%
Mean	**36.16%**	**63.84%**
Weighted Mean	**36.26%**	**63.74%**

REMARKS

Recent stock prices obtained from Yahoo Finance, Dec. 31 closing price.

Fair Value of Debt taken from 12-31-15 SEC filings.

* Implied Coupon Rate is a semi-annual rate.

** Market Value of Debt: 5.46% (Corporate Baa)

*** Fair Value of Debt overrides the Market Value of Debt in calculation of Capital Structure.

+ Market Value of Pref. Equity: N/A (Baa)