COST OF CAPITAL STUDY

YIELD CAPITALIZATION

2013 ASSESSMENT YEAR

APPENDIX C

TELECOMMUNICATIONS

EQUITY RATE						**10.25%**		
CAPITAL ASSET PRICING MODEL								PAGE
CAPM Ex Post			7.37%					5
CAPM Ex Ante			8.41%					6
DIVIDEND GROWTH MODELS								
Value Line, based on Dividends Growth			9.50%					8
Value Line, based on Earnings Growth			13.90%					9
Value Line, based on Return on Equity			9.25%					10
					RANGE	7.37 - 13.9%		
DEBT RATE						**5.00%**		11
MARKET CAPITAL STRUCTURE								
Equity	70%	x	10.25%	=		7.18%		3
Debt	30%	x	5.00%	=	1.50%			3
Marginal Tax Rate	38%	=	(1-.038)	x	1.50%	0.93%		
WEIGHTED AVERAGE COST OF CAPITAL						**8.11%**		

rounded

SUPPORT FOR GUIDELINE COMPANIES

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

Capital Structure at Book Value

Company	Ticker	Beta	Fin'l Strength	Price Stability	Growth Persist	Earnings Predict	P/E Ratio	Div'd Yield	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity
AT&T Inc	t	0.70	A++	100	55	90	15.8	4.90%	91,222,120,000	57.9%	-	0.0%	66,358,000,000	42.1%	157,580,120,000
Alaska Communication	alsk	0.75	C+	40	35	25	4.9	8.72%	nmf	nmf	nmf	nmf	nmf	nmf	nmf
Atlantic Tele-Network	atni	1.00	B++	35	80	55	16.1	2.20%	395,155,103	61.2%	-	0.0%	250,900,000	38.8%	646,055,103
BCE Inc	bce	0.70	B++	75	75	85	13.6	5.00%	14,709,654,000	46.5%	3,053,000,000	9.6%	13,886,000,000	43.9%	31,648,654,000
Cbeyond Inc	cbey	1.00	C++	25	25	30	nmf	nil	171,965,022	96.1%	-	0.0%	6,900,000	3.9%	178,865,022
CenturyLink Inc	ctl	0.75	B+	90	55	85	13.0	6.20%	19,287,156,000	49.9%	-	0.0%	19,400,000,000	50.1%	38,687,156,000
Cincinnati Bell	cbb	1.05	C+	50	25	45	nmf	nil	nmf	nmf	nmf	nmf	nmf	nmf	nmf
Comcast Corp	cmcsa	0.95	B+	80	55	85	17.8	1.90%	49,366,002,799	56.5%	-	0.0%	38,082,000,000	43.5%	87,448,002,799
Consolidated Communicati	cnsl	0.85	C++	75	70	30	90.2	9.00%	132,000,000	9.8%	-	0.0%	1,208,200,000	90.2%	1,340,200,000
Frontier	ftr	0.95	B	75	5	65	15.9	9.70%	4,152,824,000	33.1%	-	0.0%	8,381,900,000	66.9%	12,534,724,000
General Communication	gncma	1.20	C++	40	35	40	40.8	nil	158,258,537	14.3%	-	0.0%	949,700,000	85.7%	1,107,958,537
Level 3 Communication	lvlt	1.25	C++	15	10	45	nmf	nil	1,249,659,533	12.8%	-	0.0%	8,496,000,000	87.2%	9,745,659,533
Neutral Tandem	iqnt	1.05	B+	20	20	50	7.3	nil	96,392,360	100.0%	-	0.0%	-	0.0%	96,392,360
Shenandoah Telecom	shen	0.85	B	50	65	65	21.6	2.20%	207,752,482	47.4%	-	0.0%	230,200,000	52.6%	437,952,482
Telus Corp	tu	0.55	B++	100	90	80	17.1	3.90%	7,677,300,000	57.3%	-	0.0%	5,711,000,000	42.7%	13,388,300,000
Time Warner Cable	twc	1.00	B+	85	nmf	80	13.3	2.80%	7,225,312,728	22.1%	300,000,000	0.9%	25,171,000,000	77.0%	32,696,312,728
tw telecom inc	twtc	1.30	B	35	85	45	50.4	nil	1,110,142,828	44.5%	-	0.0%	1,384,200,000	55.5%	2,494,342,828
Verizon Communication	vz	0.65	A++	100	40	100	20.8	4.30%	48,590,682,089	50.5%	-	0.0%	47,618,000,000	49.5%	96,208,682,089
Windstream	win	0.95	B	80	40	90	18.3	11.40%	1,104,206,542	12.0%	-	0.0%	8,114,900,000	88.0%	9,219,106,542
Mean		**0.92**	**B+**	**62**	**48**	**63**	**23.6**	**5.56%**	**14,520,975,531**	**45.4%**		**0.6%**	**14,426,405,882**	**54.0%**	
Weighted Mean									**246,856,584,023**	**49.8%**	**3,353,000,000**	**0.68%**	**245,248,900,000**	**49.5%**	**495,458,484,023**
Median								**4.90%**		**47.4%**		**0.0%**		**50.1%**	
Trimmed Mean								**5.36%**		**44.1%**		**0.1%**		**55.2%**	
Max								**11.40%**		**100.0%**		**9.6%**		**90.2%**	
Min								**1.90%**		**9.8%**		**0.0%**		**0.0%**	
								Say		**50%**		**0.0%**		**50%**	**100%**

SUPPORT FOR CAPITAL STRUCTURE

MARKET VALUE

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

Capital Structure at Market Value

Company	Ticker	Stock Average	Common Shares	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity
AT&T Inc	t	34.552	5,492,000,000	189,757,753,333	68.7%	-	0.0%	86,470,408,793	31.3%	276,228,162,127
Alaska Communication Sys	alsk	2.160	45,820,917	98,973,181	12.9%	-	0.0%	666,395,920	87.1%	765,369,101
Atlantic Tele-Network	atni	39.223	15,569,547	610,689,532	66.1%	-	0.0%	313,223,560	33.9%	923,913,092
BCE Inc	bce	43.092	774,600,000	33,378,805,000	62.1%	3,053,000,000	5.7%	17,335,282,400	32.2%	53,767,087,400
Cbeyond Inc	cbey	8.132	30,328,928	246,624,733	96.6%	-	0.0%	8,613,960	3.4%	255,238,693
CenturyLink Inc	ctl	38.868	625,800,000	24,323,803,000	54.2%	-	0.0%	20,585,583,333	45.8%	44,909,386,333
Cincinnati Bell	cbb	5.252	202,678,684	1,064,400,889	26.6%	129,400,000	3.2%	2,804,482,308	70.1%	3,998,283,196
Comcast Corp	cmcsa	36.703	2,630,048,098	96,531,532,024	66.7%	-	0.0%	48,232,849,369	33.3%	144,764,381,393
Consolidated Communicatior	cnsl	15.582	40,000,000	623,266,667	29.2%	-	0.0%	1,508,316,880	70.8%	2,131,583,547
Frontier	ftr	4.575	998,275,000	4,567,108,125	32.5%	-	0.0%	9,482,405,094	67.5%	14,049,513,219
General Communications Inc	gncma	8.850	41,756,870	369,548,300	23.8%	-	0.0%	1,185,605,480	76.2%	1,555,153,780
Level 3 Communications	lvlt	20.770	217,710,720	4,521,851,654	32.9%	-	0.0%	9,225,922,067	67.1%	13,747,773,722
Neutral Tandem	iqnt	4.412	31,918,000	140,811,577	100.0%	-	0.0%	-	0.0%	140,811,577
Shenandoah Telecom	shen	15.440	23,962,224	369,976,739	56.3%	-	0.0%	287,381,680	43.7%	657,358,419
Telus Corp	tu	63.962	326,000,000	20,851,503,333	74.5%	-	0.0%	7,129,612,400	25.5%	27,981,115,733
Time Warner Cable	twc	95.933	295,513,813	28,349,625,127	47.1%	300,000,000	0.5%	31,579,576,239	52.4%	60,229,201,367
tw telecom inc	twtc	25.525	152,074,360	3,881,698,039	69.2%	-	0.0%	1,728,035,280	30.8%	5,609,733,319
Verizon Communications	vz	44.318	2,858,275,417	126,674,002,689	66.5%	-	0.0%	63,783,832,467	33.5%	190,457,835,156
Windstream	win	9.088	590,484,782	5,366,522,527	38.5%	-	0.0%	8,569,672,521	61.5%	13,936,195,048
			Mean		**53.9%**		**0.5%**		**45.6%**	
			Weighted Mean	**541,728,496,468**	**63.3%**	**3,482,400,000**	**0.41%**	**310,897,199,750**	**36.3%**	**856,108,096,218**
			Median		**56.3%**		**0.00%**		**43.7%**	
			Trimmed Mean		**53.6%**		**0.2%**		**45.8%**	
			Max		**100.0%**		**5.7%**		**87.1%**	
			Min		**12.9%**		**0.0%**		**0.0%**	
			Target		**70%**		**0%**		**30%**	**100%**

Source:

Stock Price: Yahoo

Market Value Debt: Bond Analysis

SUPPORT FOR MARKET MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

Company	Ticker	Stock Avg	Revenues	Multiple	Cash Flow	Multiple	Earnings	Multiple	Divds Decld	Multiple	Captl Spend	Multiple	Book Value	Multiple
AT&T Inc	t	34.552	22.83	1.5	5.70	6.1	2.33	14.8	1.76	19.6	3.49	9.9	16.61	2.1
Alaska Communication S	alsk	2.160	8.04	0.27	1.51	1.4	0.38	5.7	0.15	14.4	1.18	1.8	(0.76)	nmf
Atlantic Tele-Network	atni	39.223	47.73	0.8	9.67	4.1	2.86	13.7	1.19	33.0	5.00	7.8	25.38	1.5
BCE Inc	bce	43.092	25.66	1.7	7.74	5.6	3.39	12.7	2.17	19.9	4.53	9.5	18.99	2.3
Cbeyond Inc	cbey	8.132	16.09	0.5	2.37	3.4	(0.08)	nmf	nil	nmf	2.05	4.0	5.67	1.4
CenturyLink Inc	ctl	38.868	29.36	1.3	10.33	3.8	2.66	14.6	2.90	13.4	4.66	8.3	30.82	1.26
Cincinnati Bell	cbb	5.252	7.27	0.72	1.08	4.9	nmf	nmf	nmf	nmf	1.81	2.9	(4.08)	nmf
Comcast Corp	cmcsa	36.703	23.79	1.5	5.26	7.0	2.29	16.0	0.60	61.2	1.90	19.3	18.77	1.96
Consolidated Communica	cnsl	15.582	12.60	1.2	3.15	4.9	0.15	103.9	1.55	10.1	1.95	8.0	3.30	4.7
Frontier	ftr	4.575	5.06	0.9	1.53	3.0	0.26	17.6	0.40	11.4	2.95	1.6	4.16	1.1
General Communications	gncma	8.850	17.10	0.5	3.37	2.6	0.23	38.5	nil	nmf	3.52	2.5	3.79	2.3
Level 3 Communications	lvlt	20.770	20.84	1.0	5.02	4.1	(5.30)	nmf	nil	nmf	2.38	8.7	5.74	3.6
Neutral Tandem	iqnt	4.412	8.63	0.5	1.43	3.1	0.50	8.8	nil	nmf	0.81	5.4	3.02	1.46
Shenandoah Telecom	shen	15.440	12.02	1.3	3.38	4.6	0.69	22.4	0.33	46.8	3.72	4.2	8.67	1.8
Telus Corp	tu	63.962	33.50	1.9	9.75	6.6	4.03	15.9	2.38	26.9	6.10	10.5	23.55	2.7
Time Warner Cable	twc	95.933	71.84	1.3	17.50	5.5	6.91	13.9	2.24	42.8	10.10	9.5	24.45	3.9
tw telecom inc	twtc	25.525	9.65	2.6	2.40	10.6	0.50	51.1	nil	nmf	2.25	11.3	7.30	3.5
Verizon Communications	vz	44.318	40.95	1.1	7.80	5.7	2.32	19.1	2.02	21.9	5.70	7.8	17.00	2.6
Windstream	win	9.088	10.46	0.9	2.67	3.4	0.48	18.9	1.00	9.1	1.85	4.9	1.87	4.9
		Mean		**1.1**		**4.8**		**24.2**		**25.4**		**7.3**		**2.5**
		Median		**1.1**		**4.6**		**15.9**		**19.9**		**7.8**		**2.3**
		Trimmed Mean		**1.1**		**4.6**		**19.9**		**23.7**		**6.9**		**2.5**
		Max		**2.6**		**10.6**		**103.9**		**61.2**		**19.3**		**4.9**
		Min		**0.27**		**1.4**		**5.7**		**9.1**		**1.6**		**1.10**
		Std Dev		**0.6**		**2.0**		**24.0**		**16.2**		**4.3**		**1.2**
		Coefficient of Variation		**0.5**		**0.4**		**1.0**		**0.6**		**0.6**		**0.5**
		Harmonic Mean		**0.9**		**4.0**		**15.4**		**18.1**		**4.8**		**2.1**
		Percentile .25		**0.8**		**3.4**		**13.8**		**13.4**		**4.1**		**1.5**
		Percentile .75		**1.4**		**5.6**		**19.9**		**33.0**		**9.5**		**3.5**
		Say		**1.10**		**4.50**		**16.50**		**18.00**		**7.25**		**2.25**

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

CAPITAL ASSET PRICING MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

Ex Post

Ke = Rf + B (Rm-Rf)

Ke = Cost of Equity				**7.37%**
				to page 1
	Rf =	risk free rate	2.90%	
	Rp =	risk premium	4.70%	
	B =	Beta	0.95	page 7

Rp = Risk Premium (Rm-Rf)		**4.7%**
		to above

2013 Ibbotson Risk Premia Over Time Report, Page 6

	9.8%	Large Company Geometric Rm
less	5.1%	Average Historical Rf Income Return

Rf = Risk Free Rate		**2.90%**
		to above

2013 Ibbotson Risk Premia Over Time Report, Page 7

Long Term (20 years) US Treasury Bond Yield 2.41%

Value Line Investment Survey, Selected Yields January 11, 2013, page 1177

as of 1-2-13

US Treasury Securities year end data

5 year	0.76%
10 year	1.84%
30 year	3.05%
30 year Zero	3.29%

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

January 7, 2013 as of 12-31-12

Treasury Constant Maturities

5 year	0.72%	
10 year	1.78%	
20 year	2.54%	
30 year	2.95%	
20 year TIPS	0.15%	2.39%
30 year TIPS	0.41%	2.54%

Inflation		**2.3%**
		to appraisal template

Value Line Investment Survey, Economic Series January 4, 2013, page 1300

Consumer Price Index Annual Rate of Change 2015-2017 2.30%

The Livingston Survey December 12, 2012 page 3

Inflation average (measured by the Consumer Price Index) over next 10 y 2.50%

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

CAPITAL ASSET PRICING MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

Ex Ante

Ke = Rf + B (Rp)

Ke =	**Cost of Equity**			**8.41%**
				to page 1
	Rm =	rate of return	8.70%	
	Rf =	risk free rate	2.90%	
	Rp =	risk premium	5.80%	
	B =	Beta	0.95	page 7

Rp =	**Risk Premium**		**5.8%**
			to above
	Shannon Pratt and Roger Grabowski	3.5 - 6%	
	Cost of Capital, Applications and Examples, Third Edition, 2008, Page 113		
	Dr. Aswath Damodaran	5.78%	chart page 16
	http://pages.stern.nyu.edu/~adamodar/ 2012 Implied Premium		
	Ibbotson	6.11%	
	2013 Risk Premia Over Time Report, Page 7 Long-horizon expected ERP (supply side)		
	John Graham and Campbell Harvey	3.83%	December 2012
	The Equity Risk Premium in 2013, Pages 4 and 7	2.39 - 4.74%	10 year average range

Rf =	**Risk Free Rate**		**2.90%**
			to above
	2013 Ibbotson Risk Premia Over Time Report, Page 7		
	Long Term (20 years) US Treasury Bond Yield	2.41%	
	Value Line Investment Survey, Selected Yields January 11, 2013, page 1177		
	as of 1-2-13		
	US Treasury Securities year end data		
	5 year	0.76%	
	10 year	1.84%	
	30 year	3.05%	
	30 year Zero	3.29%	
	Federal Reserve Statistical Release (http://www.federalreserve.gov/Releases/H15/Current/)		
	January 7, 2013 as of 12-31-12		
	Treasury Constant Maturities		
	5 year	0.72%	
	10 year	1.78%	
	20 year	2.54%	
	30 year	2.95%	
	20 year TIPS	0.15%	2.39%
	30 year TIPS	0.41%	2.54%

Inflation		**2.3%**
		to appraisal template
	Value Line Investment Survey, Economic Series January 4, 2013, page 1300	
	Consumer Price Index Annual Rate of Change 2015-2017	2.30%
	The Livingston Survey December 12, 2012 page 3	
	Inflation average (measured by the Consumer Price Index) over next 1	2.50%

BETA CALCULATION FOR CAPM

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

Company	Ticker	Value Line
AT&T Inc	t	0.70
Alaska Communication Sys	alsk	0.75
Atlantic Tele-Network	atni	1.00
BCE Inc	bce	0.70
Cbeyond Inc	cbey	1.00
CenturyLink Inc	ctl	0.75
Cincinnati Bell	cbb	1.05
Comcast Corp	cmcsa	0.95
Consolidated Communications H	cnsl	0.85
Frontier	ftr	0.95
General Communications Inc	gncma	1.20
Level 3 Communications	lvlt	1.25
Neutral Tandem	iqnt	1.05
Shenandoah Telecom	shen	0.85
Telus Corp	tu	0.55
Time Warner Cable	twc	1.00
tw telecom inc	twtc	1.30
Verizon Communications	vz	0.65
Windstream	win	0.95
	Mean	**0.92**
	Median	**0.95**
	Trimmed Mean	**0.92**
	Max	**1.30**
	Min	**0.55**
Source: Value Line-five year, weekly	**Say**	**0.95**

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

Based on Dividend Growth

Ke = (D1 / Po) + G

Ke = Cost of Equity
D1 = Expected Dividends
Po = Current Price
G = Sustainable Growth

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Dividend Growth (G)	Ke
AT&T Inc	t	34.552	1.80	5.21%	4.00%	9.21%
Alaska Communication Sys	alsk	2.160	nil		nmf	
Atlantic Tele-Network	atni	39.223	1.02	2.60%	7.00%	9.60%
BCE Inc	bce	43.092	2.33	5.41%	7.50%	12.91%
Cbeyond Inc	cbey	8.132	nil		nil	
CenturyLink Inc	ctl	38.868	2.16	5.56%	-4.00%	1.56%
Cincinnati Bell	cbb	5.252	nil		nil	
Comcast Corp	cmcsa	36.703	0.78	2.13%	13.50%	15.63%
Consolidated Communications H	cnsl	15.582	1.55	9.95%	0.00%	9.95%
Frontier	ftr	4.575	0.40	8.74%	-10.50%	-1.76%
General Communications Inc	gncma	8.850	nil		nil	
Level 3 Communications	lvlt	20.770	nil		nil	
Neutral Tandem	iqnt	4.412	nil		nil	
Shenandoah Telecom	shen	15.440	0.33	2.14%	2.00%	4.14%
Telus Corp	tu	63.962	2.62	4.10%	9.00%	13.10%
Time Warner Cable	twc	95.933	2.60	2.71%	12.50%	15.21%
tw telecom inc	twtc	25.525	nil		nil	
Verizon Communications	vz	44.318	2.06	4.65%	1.50%	6.15%
Windstream	win	9.088	1.00	11.00%	0.00%	11.00%
					Mean	**8.89%**
					Median	**9.77%**
					Trimmed Mean	**9.28%**
					Max	**15.63%**
					Min	**-1.76%**
					Say	**9.50%**

Source: Value Line Projections to 10-12, 16-18

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

Based on Earnings Growth

Ke = (D1 / Po) + G

Ke = Cost of Equity
D1 = Expected Dividends
Po = Current Price
G = Sustainable Growth

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Earnings Growth (G)	Ke
AT&T Inc	t	34.552	1.80	5.21%	7.00%	12.21%
Alaska Communication Sys	alsk	2.160	nil	nmf	nmf	
Atlantic Tele-Network	atni	39.223	1.02	2.60%	11.50%	14.10%
BCE Inc	bce	43.092	2.33	5.41%	9.50%	14.91%
Cbeyond Inc	cbey	8.132	nil	nmf	nmf	
CenturyLink Inc	ctl	38.868	2.16	5.56%	-1.00%	4.56%
Cincinnati Bell	cbb	5.252	nil	nmf	42.00%	
Comcast Corp	cmcsa	36.703	0.78	2.13%	12.50%	14.63%
Consolidated Communications	cnsl	15.582	1.55	9.95%	7.00%	16.95%
Frontier	ftr	4.575	0.40	8.74%	5.00%	13.74%
General Communications Inc	gncma	8.850	nil	nmf	29.50%	
Level 3 Communications	lvlt	20.770	nil	nmf	nmf	
Neutral Tandem	iqnt	4.412	nil	nmf	-8.00%	
Shenandoah Telecom	shen	15.440	0.33	2.14%	10.00%	12.14%
Telus Corp	tu	63.962	2.62	4.10%	7.00%	11.10%
Time Warner Cable	twc	95.933	2.60	2.71%	14.50%	17.21%
tw telecom inc	twtc	25.525	nil	nmf	24.00%	
Verizon Communications	vz	44.318	2.06	4.65%	8.00%	12.65%
Windstream	win	9.088	1.00	11.00%	11.50%	22.50%
					Mean	**13.89%**
					Median	**13.92%**
					Trimmed Mean	**13.96%**
					Max	**22.50%**
					Min	**4.56%**
					Say	**13.90%**

Source: Value Line Projections to 16-18

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

Based on Return on Equity

Ke = (D1 / Po) + G

Ke = Cost of Equity
D1 = Expected Dividends
Po = Current Price
G = Sustainable Growth
b = Retained Earnings (plowback)
ROE = Return on Equity

Value Line

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	b (1-payout ratio)	ROE	Growth (b*ROE)	Ke
AT&T Inc	t	34.552	1.80	5.21%	25.0%	14.80%	3.70%	8.91%
Alaska Communication Sys	alsk	2.160	nil	nmf	48.0%	nmf		
Atlantic Tele-Network	atni	39.223	1.02	2.60%	59.0%	11.50%	6.79%	9.39%
BCE Inc	bce	43.092	2.33	5.41%	36.0%	18.00%	6.48%	11.89%
Cbeyond Inc	cbey	8.132	nil	nmf	nmf	nmf		
CenturyLink Inc	ctl	38.868	2.16	5.56%	-10.0%	8.60%	-0.86%	4.70%
Cincinnati Bell	cbb	5.252	nil	nmf	7.0%	nmf		
Comcast Corp	cmcsa	36.703	0.78	2.13%	74.0%	12.20%	9.03%	11.15%
Consolidated Communicatio	cnsl	15.582	1.55	9.95%	nmf	4.20%		
Frontier	ftr	4.575	0.40	8.74%	-57.0%	6.10%	-3.48%	5.27%
General Communications In	gncma	8.850	nil	nmf	nmf	6.20%		
Level 3 Communications	lvlt	20.770	nil	nmf	nmf	nmf		
Neutral Tandem	iqnt	4.412	nil	nmf	nmf	16.60%		
Shenandoah Telecom	shen	15.440	0.33	2.14%	52.0%	8.00%	4.16%	6.30%
Telus Corp	tu	63.962	2.62	4.10%	41.0%	17.10%	7.01%	11.11%
Time Warner Cable	twc	95.933	2.60	2.71%	68.0%	28.30%	19.24%	21.95%
tw telecom inc	twtc	25.525	nil	nmf	nmf	7.00%		
Verizon Communications	vz	44.318	2.06	4.65%	20.0%	11.00%	2.20%	6.85%
Windstream	win	9.088	1.00	11.00%	nmf	25.50%		
							Mean	**9.75%**
							Median	**9.15%**
							Trimmed Mean	**8.86%**
							Max	**21.95%**
							Min	**4.70%**
							Say	**9.25%**

SUPPORT FOR DEBT RATING AND DEBT YIELD RATE

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

Company	Ticker	Mergent's Ratings	S&P Ratings	WAYTM
AT&T Inc	t	A2	A-	4.12%
Alaska Communication Sys	alsk		B+	
Atlantic Tele-Network	atni			
BCE Inc	bce	Baa1	BBB+	
Cbeyond Inc	cbey			
CenturyLink Inc	ctl	Baa3	BB	6.62%
Cincinnati Bell	cbb		B	
Comcast Corp	cmcsa	Baa1	A-	3.90%
Consolidated Communications Hol	cnsl		B+	
Frontier	ftr	Ba2	BB-	
General Communications Inc	gncma			
Level 3 Communications	lvlt	Caa2	B-	
Neutral Tandem	iqnt			
Shenandoah Telecom	shen			
Telus Corp	tu	Baa1	BBB+	
Time Warner Cable	twc	Baa2	BBB	3.67%
tw telecom inc	twtc	B1	BB-	
Verizon Communications	vz	A3	A-	4.00%
Windstream	win		BB-	
Overall Average Debt Rating		**Baa3**	**BB+**	**4.46%**

bond analysis, A-BBB bonds

	All issues	20+ year maturities
Guideline Companies, All Ratings	**4.57%**	**4.65%**

bond analysis page 12

Mergent's Bond Record January 2013, page 152

Corporate	**Aaa**	**Aa**	**A**	**Baa**
October	3.47%	3.63%	3.90%	4.58%
November	3.50%	3.57%	3.87%	4.51%
December	3.65%	3.70%	3.98%	4.63%
4th Qtr Average	**3.54%**	**3.63%**	**3.92%**	**4.57%**
2012 Average	**3.67%**	**3.80%**	**4.15%**	**4.94%**
Public Utilities	**Aaa**	**Aa**	**A**	**Baa**
October		3.68%	3.91%	4.54%
November		3.60%	3.84%	4.42%
December		3.75%	4.00%	4.56%
4th Qtr Average		**3.68%**	**3.92%**	**4.51%**
2012 Average		**3.83%**	**4.13%**	**4.86%**
Industrials	**Aaa**	**Aa**	**A**	**Baa**
October	3.47%	3.58%	3.89%	4.62%
November	3.50%	3.54%	3.89%	4.60%
December	3.65%	3.65%	3.96%	4.70%
4th Qtr Average	**3.54%**	**3.59%**	**3.91%**	**4.64%**
2012 Average	**3.67%**	**3.77%**	**4.17%**	**5.01%**

Debt Yield Rate	**5.00%**

to page 1

12/31/2012

Telecom Bond Analysis

2013.5

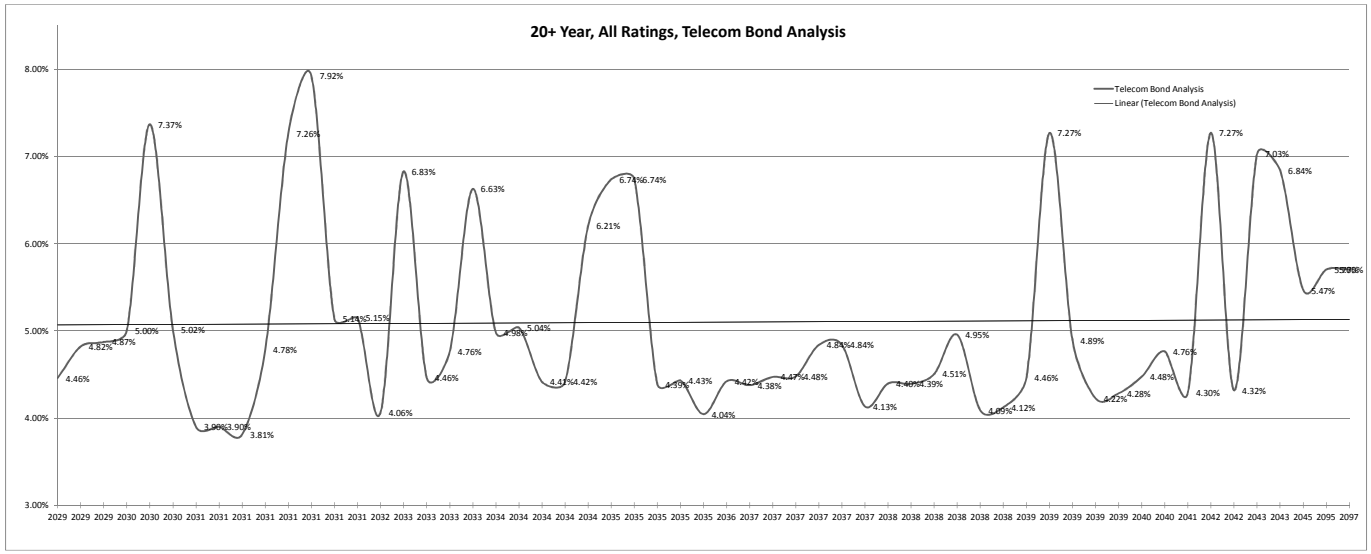
Company	type	Call	coupon	maturity	Price 12/12	Issued / Book	current yield	yield to maturity	Weighted A	Rating	Mkt Val	Mkt : Book	Embedded I	Debt Service	WAYTM	WAYTM	S&P YTM
AT&T Corp	sr notes	100	8.000	2031	151.33	$ 2,750,000,000	5.286%	3.90%	0.08%	A-	$ 4,161,575,000	151.33%		220,000,000	0.000829432	0.001919663	4.07
AT&T Corp	Notes	z100	6.500	2029	122.5	$ 8,000,000,000	5.306%	4.46%	0.28%	A-	$ 9,800,000,000	122.50%		520,000,000	0.002759425	0.006386501	4.49
AT&T Corp	sr notes		8.000	2031	151.33	$ 2,750,000,000	5.286%	3.90%	0.08%	A-	$ 4,161,575,000	151.33%		220,000,000	0.000829432	0.001919663	4.07
AT&T Wireless	sr notes	z100	8.750	2031	162.25	$ 6,500,000,000	5.393%	3.81%	0.19%	A-	$ 10,546,250,000	162.25%		568,750,000	0.001916337	0.00443523	3.88
AT&T Inc	Global Note	z100	5.800	2019	122.70	$ 2,250,000,000	4.727%	1.47%	0.03%	A-	$ 2,760,750,000	122.70%		130,500,000	0.000256396	0.000593412	1.78
AT&T Inc	Fixed Rate		4.450	2021	115.48	$ 1,250,000,000	3.853%	2.19%	0.02%	A-	$ 1,443,500,000	115.48%		55,625,000	0.000211726	0.000490026	2.32
AT&T Inc	Global Fixed Notes		3.875	2021	111.45	$ 1,500,000,000	3.477%	2.20%	0.03%	A-	$ 1,671,750,000	111.45%		58,125,000	0.000255539	0.000591428	2.44
AT&T Inc	Fx Rate Global Notes		3.000	2022	104.00	$ 1,850,000,000	2.885%	2.47%	0.04%	NR	$ 1,924,000,000	104.00%		55,500,000	0.000353861	0.000818988	2.49
AT&T Inc	Fixed Rate	z100	6.800	2036	133.49	$ 1,500,000,000	5.094%	4.42%	0.05%	A-	$ 2,002,350,000	133.49%		102,000,000	0.000512971	0.001187235	4.44
AT&T Inc	Global Note	z100	6.500	2037	130.78	$ 2,000,000,000	4.970%	4.38%	0.07%	A-	$ 2,615,600,000	130.78%		130,000,000	0.000677231	0.001567404	4.44
AT&T Inc	Global Note	z100	6.300	2038	128.22	$ 2,750,000,000	4.913%	4.40%	0.09%	A-	$ 3,526,050,000	128.22%		173,250,000	0.000935196	0.002164446	4.42
AT&T Inc	Global Note	z100	6.400	2038	129.75	$ 1,250,000,000	4.933%	4.39%	0.04%	A-	$ 1,621,875,000	129.75%		80,000,000	0.000424829	0.000983237	4.42
AT&T Inc	Global Notes		6.550	2039	131.41	$ 2,250,000,000	4.984%	4.46%	0.08%	A-	$ 2,956,725,000	131.41%		147,375,000	0.000776798	0.001797846	4.49
AT&T Inc	Fixed Rate		5.550	2041	120.01	$ 2,000,000,000	4.625%	4.30%	0.07%	A-	$ 2,400,200,000	120.01%		111,000,000	0.000664696	0.001538393	4.32
Bell South Capital Funding	deb	NC	6.040	2026	108.26	$ 300,000,000	5.58%	5.13%	0.01%	A-	$ 324,780,000	108.26%		18,120,000	0.00011903	0.000275487	5.2
Bell South Capital Funding	deb	100	7.875	2030	131.78	$ 1,000,000,000	5.98%	5.00%	0.04%	A-	$ 1,317,800,000	131.78%		78,750,000	0.000386892	0.000895435	5.05
Bell South Capital Funding	deb	Z100	7.120	2097	124.6	$ 500,000,000	5.71%	5.70%	0.02%	A-	$ 623,000,000	124.60%		35,600,000	0.000220608	0.000510583	5.71
Bell South Corp	note	Z100	6.875	2031	124.42	$ 2,750,000,000	5.53%	4.78%	0.10%	A-	$ 3,421,550,000	124.42%		189,062,500	0.00101771	0.002355419	4.88
Bell South Corp	deb	Z100	6.550	2034	119.89	$ 700,000,000	5.46%	4.98%	0.03%	A-	$ 839,230,000	119.89%		45,850,000	0.000269669	0.00062413	5
Bell South Corp	note	Z100	6.000	2034	112.14	$ 700,000,000	5.35%	5.04%	0.03%	A-	$ 784,980,000	112.14%		42,000,000	0.000272763	0.00063129	5.07
SBC Communications	Global Note	Z100	6.150	2034	123.11	$ 3,250,000,000	5.00%	4.41%	0.11%	A-	$ 4,001,075,000	123.11%		199,875,000	0.00110973	0.002568395	4.48
SBC Communications	Global Note	z100	6.450	2034	127.06	$ 2,000,000,000	5.08%	4.42%	0.07%	A-	$ 2,541,200,000	127.06%		129,000,000	0.000683334	0.00158153	4.44
Wisconsin Bell (sub SBC)	deb	NC	6.350	2026	107.94	$ 125,000,000	5.88%	5.46%	0.01%	A-	$ 134,925,000	107.94%		7,937,500	0.000052773	0.000122139	5.51
Indian Bell Tel	deb	NC	7.300	2026	131.32	$ 150,000,000	5.56%	4.06%	0.00%	A-	$ 196,980,000	131.32%		10,950,000	0.000047071	0.000108943	4.27
Michigan Bell	deb	NC	7.850	2022	136.73	$ 200,000,000	5.74%	2.91%	0.00%	A-	$ 273,460,000	136.73%		15,700,000	0.000045027	0.000104212	3.1
Pacific Bell	deb	102.89	7.375	2043	104.25	$ 300,000,000	7.07%	7.03%	0.02%	A-	$ 312,750,000	104.25%		22,125,000	0.000163151	0.000377602	7.03
Pacific Bell	deb	101.6	7.250	2027	102.88	$ 250,000,000	7.05%	6.92%	0.01%	A	$ 257,200,000	102.88%		18,125,000	0.000133741	0.000309535	
Pacific Bell	deb	101.12	6.625	2034	104.79	$ 550,000,000	6.32%	6.21%	0.03%	A-	$ 576,345,000	104.79%		36,437,500	0.00026405	0.000611127	6.22
Pacific Bell	deb	NC	7.125	2026	133.68	$ 625,000,000	5.33%	3.71%	0.02%	A-	$ 835,500,000	133.68%		44,531,250	0.000179341	0.000415073	3.81
Southwest'n Bell Tel	deb	101.733	7.375	2027	102.77	$ 400,000,000	7.18%	7.05%	0.02%	A	$ 411,080,000	102.77%		29,500,000	0.000218171	0.000504942	7.09
Southwest'n Bell Tel	deb	101.29	7.000	2027	102.32	$ 200,000,000	6.84%	6.73%	0.01%	A	$ 204,640,000	102.32%		14,000,000	0.000104177	0.000241111	6.77
TCI Communications	Sr Deb	NC	7.875	2026	140.55	$ 600,000,000	5.60%	3.75%	0.02%	BBB+	$ 843,300,000	140.55%		47,250,000	0.000174145	0.000403048	3.85
TCI Communications	Sr Deb	NC	7.125	2028	132.03	$ 300,000,000	5.40%	4.14%	0.01%	BBB+	$ 396,090,000	132.03%		21,375,000	0.000096142	0.000222514	4.2
Tele Communications	Sr Deb	NC	10.125	2022	146.06	$ 150,000,000	6.93%	3.71%	0.00%	BBB+	$ 219,090,000	146.06%		15,187,500	0.000043033	0.000099596	3.95
Tele Communications	Sr Deb	NC	9.875	2022	143.73	$ 100,000,000	6.87%	3.77%	0.00%	BBB	$ 143,730,000	143.73%		9,875,000	0.000029144	0.000067452	4
Bell South Telecommunicatic	deb		7.000	2025	123.75	$ 500,000,000	5.66%	4.33%	0.02%	NR	$ 618,750,000	123.75%		35,000,000	0.000167645	0.000388003	4.54
Bell South Telecommunicatic	deb	NC	7.000	2025	126.54	$ 300,000,000	5.53%	4.07%	0.01%	A-	$ 379,620,000	126.54%		21,000,000	0.000094346	0.000218357	4.29
Bell South Telecommunicatic	deb	Z100	6.375	2028	119.75	$ 500,000,000	5.32%	4.49%	0.02%	A-	$ 598,750,000	119.75%		31,875,000	0.000173763	0.000402164	4.54
Bell South Telecommunicatic	deb	NC	5.850	2045	105.69	$ 300,000,000	5.54%	5.47%	0.01%	A-	$ 317,070,000	105.69%		17,550,000	0.000126891	0.000293681	5.47
Bell South Telecommunicatic	deb	NC	7.000	2095	122.49	$ 500,000,000	5.71%	5.70%	0.02%	A-	$ 612,450,000	122.49%		35,000,000	0.000220609	0.000510585	5.71
40	**Book Val**	**4000**		**sum**	**4973.23**	**$ 55,850,000,000**	**Percent of book**	**124.33%**	**1.78%**		**$ 72,777,545,000**	**130.31%**	**6.70%**	**$ 3,743,801,250**		**4.124%**	
CenturyTel Inc	sr notes		6.450	2021	110.59	$ 1,250,000,000	5.83%	4.74%	0.05%	BB	$ 1,382,375,000	110.59%		80,625,000	0.000458312	0.012809064	4.83
CenturyTel Inc	sr notes		5.800	2022	105.71	$ 1,400,000,000	5.49%	4.96%	0.05%	BB	$ 1,479,940,000	105.71%		81,200,000	0.000537251	0.015015275	5
CenturyTel Inc	fixed rate		7.600	2039	103.80	$ 800,000,000	7.32%	7.27%	0.04%	BB	$ 830,400,000	103.80%		60,800,000	0.000449843	0.01257235	7.27
CenturyTel Inc	sr notes		7.650	2042	104.51	$ 650,000,000	7.32%	7.27%	0.04%	BB	$ 679,315,000	104.51%		49,725,000	0.000365617	0.010218396	7.27
CenturyTel Entr	sr notes	z100	7.200	2025	105.63	$ 100,000,000	6.82%	6.49%	0.01%	BB	$ 105,630,000	105.63%		7,200,000	0.000050210	0.001403283	6.54
CenturyTel Entr	Deb g	z100	6.875	2028	103.32	$ 425,000,000	6.65%	6.51%	0.02%	BB	$ 439,110,000	103.32%		29,218,750	0.000214183	0.00598607	6.52
6		**600**		**sum**	**633.56**	**$ 4,625,000,000**	**Percent of book**	**105.59%**	**0.21%**		**$ 4,916,770,000**	**106.31%**	**6.68%**	**$ 308,768,750**		**5.800%**	
Cincinnati Bell Tel	Gtd Deb	z100	6.300	2028	95.00	$ 150,000,000	6.63%	6.30%	0.01%	BB-	$ 142,500,000	95.00%		9,450,000	0.00007310790	0.009692308	6.83
Cincinnati Bell Inc	fixed rate		8.375	2020	108.25	$ 775,000,000	7.74%	8.38%	0.05%	B	$ 838,937,500	108.25%		64,906,250	0.00050213328	0.066570513	7
Cincinnati Bell Inc	Sec Notes	NC	7.250	2023	80.75	$ 50,000,000	8.98%	7.25%	0.00%	BB-	$ 40,375,000	80.75%		3,625,000	0.00002804403	0.003717949	9.84
3		**300**		**sum**	**284.00**	**$ 975,000,000**	**Percent of book**	**94.67%**	**0.06%**		**$ 1,021,812,500**	**104.80%**	**8.00%**	**$ 77,981,250**		**7.998%**	
Frontier Communications Co	sr note		8.500	2020	115	$ 1,100,000,000	7.39%	5.68%	0.05%	BB	$ 1,265,000,000	115.00%		93,500,000	0.000483047	0.011344319	5.83
Frontier Communications Co	fixed rate		8.500	2020	115	$ 1,100,000,000	7.39%	5.68%	0.05%	NR	$ 1,265,000,000	115.00%		93,500,000	0.000483047	0.011344319	5.83
Frontier Communications Co	sr note		9.250	2021	117.25	$ 500,000,000	7.89%	6.29%	0.02%	NR	$ 586,250,000	117.25%		46,250,000	0.000243469	0.005717842	6.64
Frontier Communications Co	sr note		8.750	2022	116.00	$ 500,000,000	7.54%	6.27%	0.02%	BB	$ 580,000,000	116.00%		43,750,000	0.000242344	0.005691418	6.37
Frontier Communications Co	sr note		8.750	2022	116.00	$ 500,000,000	7.54%	6.27%	0.02%	NR	$ 580,000,000	116.00%		43,750,000	0.000242344	0.005691418	6.37
Frontier Communications Co	sr note		7.125	2023	106.00	$ 850,000,000	6.72%	6.27%	0.04%	BB	$ 901,000,000	106.00%		60,562,500	0.00041216	0.009679553	6.3
Citizens Communications	sr note	z100	9.000	2031	110.00	$ 954,000,000	8.18%	7.92%	0.06%	BB	$ 1,049,400,000	110.00%		85,860,000	0.000584852	0.013735207	7.96
7		**700**		**sum**	**795.25**	**$ 5,504,000,000**	**Percent of book**	**113.61%**	**0.27%**		**$ 6,226,650,000**	**113.13%**	**8.49%**	**$ 467,172,500**		**6.320%**	
Comcast Cable Comm	sr note	z100	8.500	2027	143.94	$ 250,000,000	5.91%	4.18%	0.01%	NR	$ 359,850,000	143.94%		21,250,000	8.07698E-05	0.00061324	4.27
Comcast Corp	notes		5.700	2019	121.84	$ 700,000,000	4.68%	1.53%	0.01%	BBB+	$ 852,880,000	121.84%		39,900,000	8.28264E-05	0.00062885	2.29
Comcast Corp	notes		5.150	2020	118.52	$ 1,400,000,000	4.35%	2.07%	0.02%	BBB+	$ 1,659,280,000	118.52%		72,100,000	0.000224728	0.00170623	2.27
ATT Broadband	notes	NC	9.455	2022	151.18	$ 1,075,000,000	6.25%	2.65%	0.02%	BBB+	$ 1,625,185,000	151.18%		101,641,250	0.000220461	0.00167383	3.34
Comcast Corp	fixed rate		3.125	2022	104.18	$ 1,000,000,000	3.00%	2.57%	0.02%	NR	$ 1,041,800,000	104.18%		31,250,000	0.000198921	0.001510129	2.63
Comcast Corp	notes	z100	7.050	2033	133.2	$ 1,500,000,000	5.29%	4.46%	0.05%	BBB+	$ 1,998,000,000	133.20%		105,750,000	0.000518094	0.00393359	4.49
Comcast Corp	notes	z100	5.650	2035	117.33	$ 750,000,000	4.82%	4.39%	0.03%	BBB+	$ 879,975,000	117.33%		42,375,000	0.000254626	0.00193323	4.40
Comcast Corp	notes		6.500	2035	128.30	$ 2,250,000,000	5.07%	4.43%	0.08%	BBB+	$ 2,886,750,000	128.30%		146,250,000	0.000771399	0.00585679	4.49
Comcast Corp	notes	z100	6.950	2037	135.60	$ 2,000,000,000	5.13%	4.47%	0.07%	BBB+	$ 2,712,000,000	135.60%		139,000,000	0.00069186	0.00525289	4.54
Comcast Corp	notes	z100	6.450	2037	128.31	$ 2,850,000,000	5.03%	4.48%	0.10%	BBB+	$ 3,656,835,000	128.31%		183,825,000	0.000987291	0.007495933	4.49
Comcast Corp	notes		6.400	2038	127.77	$ 1,000,000,000	5.01%	4.51%	0.03%	BBB+	$ 1,277,700,000	127.77%		64,000,000	0.000348536	0.002646229	4.51
Comcast Corp	notes		6.400	2040	129.53	$ 1,000,000,000	4.94%	4.48%	0.03%	BBB+	$ 1,295,300,000	129.53%		64,000,000	0.000346211	0.002628584	4.49
Comcast Corp	fixed rate		4.650	2042	105.40	$ 1,250,000,000	4.41%	4.32%	0.04%	NR	$ 1,317,500,000	105.40%		58,125,000	0.000417474	0.003169641	4.32
13		**1300**		**sum**	**1645.1**	**$ 17,025,000,000**	**Percent of book**	**126.55%**	**0.51%**		**$ 21,563,055,000**	**126.66%**	**6.28%**	**$ 1,069,466,250**		**3.905%**	
Level 3 Communications	sr note		11.875	2019	94.00	$ 605,000,000	12.63%	13.49%	0.06%	CCC	$ 568,700,000	94.00%		71,843,750	0.000631354	0.013649358	13.40
Level 3 Communications	sr note		11.875	2019	115.25	$ 605,000,000	10.30%	8.31%	0.04%	CCC	$ 697,262,500	115.25%		71,843,750	0.000388892	0.008407525	8.52
Level 3 Communications	Gtd sr notes		9.375	2019	111.75	$ 500,000,000	8.39%	6.75%	0.03%	CCC	$ 558,750,000	111.75%		46,875,000	0.000260994	0.005642474	6.92
Level 3 Communications	Gtd sr notes		7.000	2020	104.50	$ 775,000,000	6.70%	6.14%	0.04%	CCC	$ 809,875,000	104.50%		54,250,000	0.000368108	0.007958189	6.20
Level 3 Communications	Gtd sr notes		8.625	2020	111.00	$ 894,000,000	7.77%	6.50%	0.04%	CCC	$ 992,340,000	111.00%		77,107,500	0.000449326	0.009714056	6.80
Level 3 Communications	Gtd sr notes		8.125	2019	109.00	$ 1,200,000,000	7.45%	6.15%	0.06%	CCC	$ 1,308,000,000	109.00%		97,500,000	0.000570671	0.012337424	6.49
Level 3 Communications	Gtd sr notes		8.625	2020	111.00	$ 900,000,000	7.77%	6.50%	0.05%	NR	$ 999,000,000	111.00%		77,625,000	0.000452342	0.009779251	6.80
Level 3 Communications	Gtd sr notes		9.375	2019	111.75	$ 500,000,000	8.39%	6.75%	0.03%	CCC	$ 558,750,000	111.75%		46,875,000	0.000260994	0.005642474	6.92
8		**800**		**sum**	**868.25**	**$ 5,979,000,000**	**Percent of book**	**108.53%**	**0.34%**		**$ 6,492,677,500**	**108.59%**	**9.10%**	**$ 543,920,000**		**7.313%**	
Qwest Cap Funding	notes	z100	7.625	2021	109.60	$ 3,750,000,000	6.96%	6.00%	0.17%	BB	$ 4,110,000,000	109.60%		285,937,500	0.00174013	0.021991741	6.20
Qwest Cap Funding	notes	z100	7.750	2031	104.73	$ 801,000,000	7.40%	7.26%	0.05%	BB	$ 838,887,300	104.73%		62,077,500	0.00045013	0.00568871	7.27
US West Cap Fndg	Deb	z100	6.875	2028	101.92	$ 1,500,000,000	6.75%	6.66%	0.08%	BB	$ 1,528,800,000	101.92%		103,125,000	0.00077337	0.009773773	6.69
US West Comm	Deb	100.33	7.500	2023	100.33	$ 484,000,000	7.48%	7.45%	0.03%	NR	$ 485,597,200	100.33%		36,300,000	0.00027897	0.003525564	7.45
US West Comm	Deb		7.250	2035	105.73	$ 750,000,000	6.86%	6.74%	0.04%	BBB	$ 792,975,000	105.73%		54,375,000	0.00039095	0.004940756	6.76
US West Comm	Deb	101.94	7.250	2035	105.73	$ 750,000,000	6.86%	6.74%	0.04%	BBB-	$ 792,975,000	105.73%		54,375,000	0.00039095	0.004940756	6.76
US West Comm	Deb	101.073	6.875	2033	100.50	$ 1,000,000,000	6.84%	6.83%	0.05%	BBB-	$ 1,005,000,000	100.50%		68,750,000	0.00052822	0.006675652	6.83
US West Comm	Deb	102.74	7.125	2043	103.61	$ 400,000,000	6.88%	6.84%	0.02%	BBB-	$ 414,440,000	103.61%		28,500,000	0.00021158	0.002673947	6.83
US West Comm	Deb	100.91	7.200	2026	100.55	$ 250,000,000	7.16%	7.13%	0.01%	BBB-	$ 251,375,000	100.55%		18,000,000	0.00013794	0.001743267	7.14
US West Comm	Deb	NC	7.250	2025	115.87	$ 500,000,000	6.26%	5.37%	0.02%	BBB-	$ 579,350,000	115.87%		36,250,000	0.00020753	0.002622793	5.51
Northwestern Bell Tel	Deb	NC	7.750	2030	103.57	$ 43,000,000	7.48%	7.37%	0.00%	BBB-	$ 44,535,100	103.57%		3,332,500	0.00002451	0.000309807	7.37
11	**Book Value**	**1100**		**sum**	**1152.14**	**$ 10,228,000,000**	**Percent of book**	**104.74%**	**0.51%**		**$ 10,843,934,600**	**106.02%**	**7.34%**	**$ 751,022,500**		**6.489%**	
Time Warner Cable	deb		6.550	2037	123.72	$ 1,500,000,000	5.29%	4.84%	0.06%	BBB	$ 1,855,800,000	123.72%		98,250,000	0.000561479	0.00571475	4.86
Time Warner Cable	deb		6.750	2039	126.83	$ 1,500,000,000	5.32%	4.89%	0.06%	BBB	$ 1,902,450,000	126.83%		101,250,000	0.000567106	0.005772021	4.9
Time Warner Cable	deb		5.875	2040	116.52	$ 1,200,000,000	5.04%	4.76%	0.04%	BBB	$ 1,398,240,000	116.52%		70,500,000	0.000442306	0.004501803	4.78
Time Warner Cable	note		8.750	2019	134.91	$ 1,300,000,000	6.49%	1.99%	0.02%	BBB	$ 1,753,830,000	134.91%		113,750,000	0.000199818	0.002033759	2.43
Time Warner Cable	note		8.250	2019	133.07	$ 2,000,000,000	6.20%	1.87%	0.03%	BBB	$ 2,661,400,000	133.07%		165,000,000	0.000288921	0.002940649	2.29
Time Warner Cable	note		5.000	2020	116.43	$ 1,500,000,000	4.29%	2.25%	0.03%	BBB	$ 1,746,450,000	116.43%		75,000,000	0.000261595	0.002662517	2.41
Time Warner Cable	note		4.125	2021	109.51	$ 700,000,000	3.77%	2.71%	0.01%	BBB	$ 766,570,000	109.51%		28,875,000	0.00014659	0.001491996	2.78
Time Warner Cable	note		6.550	2037	123.72	$ 1,500,000,000	5.29%	4.84%	0.06%	BBB	$ 1,855,800,000	123.72%		98,250,000	0.000561479	0.00571475	4.86
Time Warner Cable	deb		7.300	2038	132.86	$ 1,500,000,000	5.49%	4.95%	0.06%	BBB	$ 1,992,900,000	132.86%		109,500,000	0.00057496	0.005851961	5
9	**Book Value**	**900**		**sum**	**1117.57**	**$ 12,700,000,000**	**Percent of book**	**124.17%**	**0.36%**		**$ 15,933,440,000**	**125.46%**	**6.77%**	**860,375,000**		**3.668%**	

Verizon Communications	Notes			6.350	2019	126.37	$	1,750,000,000	5.02%		1.34%	0.02%	A-	$	2,211,475,000	126.37%		111,125,000	0.000181949	0.00154985	1.68
Verizon Communications	Notes	z100		6.250	2037	131.46	$	750,000,000	4.75%		4.13%	0.02%	A-	$	985,950,000	131.46%		46,875,000	0.000239761	0.002042293	4.15
Verizon Communications	Notes			6.400	2038	135.38	$	1,750,000,000	4.73%		4.09%	0.06%	A-	$	2,369,150,000	135.38%		112,000,000	0.000553342	0.004713379	4.1
Verizon Communications	Notes			6.900	2038	142.31	$	1,250,000,000	4.85%		4.12%	0.04%	A-	$	1,778,875,000	142.31%		86,250,000	0.000398775	0.003396773	4.15
Verizon Communications	Notes			7.350	2039	148.23	$	1,000,000,000	4.96%		4.22%	0.03%	A-	$	1,482,300,000	148.23%		73,500,000	0.000326808	0.002783758	4.24
Verizon Communications	Notes			8.950	2039	171.57	$	1,250,000,000	5.22%		4.28%	0.04%	A-	$	2,144,625,000	171.57%		111,875,000	0.000414173	0.003527933	4.32
Verizon Global Funding	Notes	Z100		7.750	2032	147.30	$	400,000,000	5.26%		4.06%	0.01%	A-	$	589,200,000	147.30%		31,000,000	0.000125749	0.001071135	4.12
Verizon Global Funding	Notes	Z100		5.850	2035	125.61	$	1,500,000,000	4.66%		4.04%	0.05%	A-	$	1,884,150,000	125.61%		87,750,000	0.000469322	0.003997694	4.1
Verizon MD	deb	z100		5.125	2033	104.54	$	350,000,000	4.90%		4.76%	0.01%	A-	$	365,890,000	104.54%		17,937,500	0.000128953	0.001098422	4.76
Verizon Penn (bell atlantic)	deb	NC		6.000	2028	117.23	$	125,000,000	5.12%		4.37%	0.00%	A -	$	146,537,500	117.23%		7,500,000	0.000042266	0.000360027	4.46
Verizon NE	deb	NC		7.875	2029	132.84	$	350,000,000	5.93%		4.82%	0.01%	A -	$	464,940,000	132.84%		27,562,500	0.000130484	0.001111465	4.98
Verizon NJ	deb	NC		8.000	2022	135.37	$	200,000,000	5.91%		3.18%	0.00%	A -	$	270,740,000	135.37%		16,000,000	0.000049276	0.000419731	3.37
Verizon NJ	deb	NC		7.850	2029	131.88	$	150,000,000	5.95%		4.87%	0.01%	A -	$	197,820,000	131.88%		11,775,000	0.000056540	0.000481609	5.03
Verizon NY (NY Telephone)	deb	100		7.000	2033	104.01	$	200,000,000	6.73%		6.63%	0.01%	A -	$	208,020,000	104.01%		14,000,000	0.000102548	0.000873504	6.64
Verizon NY (NY Telephone)	deb	100		6.700	2023	104.37	$	250,000,000	6.42%		6.08%	0.01%	A -	$	260,925,000	104.37%		16,750,000	0.000117610	0.0010018	6.15
Verizon NY (NY Telephone)	deb	NC		6.500	2028	113.87	$	100,000,000	5.71%		5.12%	0.00%	A -	$	113,870,000	113.87%		6,500,000	0.000039621	0.000337495	5.15
GTE Corp	deb	NC		8.750	2021	140.53	$	300,000,000	6.23%		2.71%	0.01%	A-	$	421,590,000	140.53%		26,250,000	0.000062813	0.000535046	3.44
GTE Corp	deb	NC		6.940	2028	133.03	$	2,100,000,000	5.22%		3.91%	0.06%	A-	$	2,793,630,000	133.03%		145,740,000	0.000635568	0.005413782	3.98
GTE North	deb	NC		6.730	2028	95.05	$	400,000,000	7.08%		7.29%	0.02%	BB	$	380,200,000	95.05%		26,920,000	0.000225727	0.001922746	7.28
GTE Southwest	1st mtg	NC		8.500	2031	138.24	$	100,000,000	6.15%		5.14%	0.00%	A+	$	138,240,000	138.24%		8,500,000	0.000039731	0.000338428	5.27
GTE CA	deb	NC		6.750	2027	118.38	$	200,000,000	5.70%		4.86%	0.01%	A-	$	236,760,000	118.38%		13,500,000	0.000075220	0.000640727	4.9
GTE Florida	deb	100.97		7.250	2025	103.23	$	100,000,000	7.02%		6.84%	0.01%	NR	$	103,230,000	103.23%		7,250,000	0.000052881	0.000450437	
GTE Florida	deb	NC		6.860	2028	121.02	$	300,000,000	5.67%		4.81%	0.01%	A-	$	363,060,000	121.02%		20,580,000	0.000111701	0.000951475	4.86
Bell Tel PA	deb	NC		8.350	2030	136.84	$	175,000,000	6.10%		5.02%	0.01%	A -	$	239,470,000	136.84%		14,612,500	0.000067896	0.000578336	5.15
Bell Tel PA	deb	NC		8.750	2031	140.89	$	125,000,000	6.21%		5.15%	0.00%	A -	$	176,112,500	140.89%		10,937,500	0.000049792	0.000424125	5.29
25	**Book Val**		**2500**		**sum**	**3199.55**	**$**	**15,175,000,000**	**Percent of book**	**127.98%**		**0.47%**		**$**	**20,326,760,000**	**133.95%**	**6.94%**	**$ 1,052,690,000**		**4.002%**	
Windstream	Sr Notes	z100		7.000	2019	102.25	$	500,000,000	6.85%		6.50%	0.03%	B	$	511,250,000	102.25%		35,000,000	0.000251445	0.02708504	6.54
Windstream	gtd Sr Notes			7.750	2020	108.00	$	700,000,000	7.18%		6.22%	0.03%	B	$	756,000,000	108.00%		54,250,000	0.000336648	0.03626289	6.44
2	**Book Val**		**200**		**sum**	**210.25**	**$**	**1,200,000,000**	**Percent of book**	**105.13%**		**0.06%**		**$**	**1,267,250,000**	**105.60%**	**7.44%**	**$ 89,250,000**		**6.335%**	
					Total		**$**	**129,261,000,000**					**Total**	**$**	**161,369,894,600**	**124.84%**	**6.94%**	**$ 8,964,447,500**	**4.57%**	5.595%	5.155

This includes short term. For 20+ year maturities see below

Source: Standard & Poor's Bond Guide, January 2013, 2012 Yr End Prices

Embedded debt rate	**6.9352%**
Weighted average yield to maturity	**4.5738%**
Debt service / Market value	**5.5552%**



03/04/2013

Telecom Bond Analysis

Telecom Bond Analysis 12/2012

Company	type	Call	coupon	maturity	Price 12/12	Issued / Book	current yield	yield to maturity	Weighted Averz Rating	Mkt Val	Mkt : Book	Embedded Rate	Debt Service	WAYTM	WAYTM	S&P YTM
AT&T Corp	Notes	z100	6.500	2029	122.5	$ 8,000,000,000	5.306%	4.46%	0.45% A-	$ 9,800,000,000	122.50%		520,000,000	0.004481093	0.008051604	4.49
Verizon NE	deb	NC	7.875	2029	132.84	$ 350,000,000	5.93%	4.82%	0.02% A -	$ 464,940,000	132.84%		27,562,500	0.000211896	0.001803903	4.98
Verizon NJ	deb	NC	7.850	2029	131.88	$ 150,000,000	5.95%	4.87%	0.01% A -	$ 197,820,000	131.88%		11,775,000	0.000091817	0.00078165	5.03
Bell South Capital Funding	deb	100	7.875	2030	131.78	$ 1,000,000,000	5.98%	5.00%	0.06% A-	$ 1,317,800,000	131.78%		78,750,000	0.000628282	0.001128895	5.05
Northwestern Bell Tel	Deb	NC	7.750	2030	103.57	$ 43,000,000	7.48%	7.37%	0.00% BBB-	$ 44,535,100	103.57%		3,332,500	0.00003981	0.00061007	7.37
Bell Tel PA	deb	NC	8.350	2030	136.84	$ 175,000,000	6.10%	5.02%	0.01% A -	$ 239,470,000	136.84%		14,612,500	0.000110257	0.000938637	5.15
AT&T Corp	sr notes	100	8.000	2031	151.33	$ 2,750,000,000	5.286%	3.90%	0.13% A-	$ 4,161,575,000	151.33%		220,000,000	0.001346933	0.002420162	4.07
AT&T Corp	sr notes		8.000	2031	151.33	$ 2,750,000,000	5.286%	3.90%	0.13% A-	$ 4,161,575,000	151.33%		220,000,000	0.001346933	0.002420162	4.07
AT&T Wireless	sr notes	z100	8.750	2031	162.25	$ 6,500,000,000	5.393%	3.81%	0.31% A-	$ 10,546,250,000	162.25%		568,750,000	0.003111983	0.005591594	3.88
Bell South Corp	note	Z100	6.875	2031	124.42	$ 2,750,000,000	5.53%	4.78%	0.17% A-	$ 3,421,550,000	124.42%		189,062,500	0.001652682	0.002969529	4.88
Qwest Cap Funding	notes	z100	7.750	2031	104.73	$ 801,000,000	7.40%	7.26%	0.07% BB	$ 838,887,300	104.73%		62,077,500	0.00073097	0.011202181	7.27
Citizens Communications	sr note	z100	9.000	2031	110.00	$ 954,000,000	8.18%	7.92%	0.09% BB	$ 1,049,400,000	110.00%		85,860,000	0.000949755	0.079243793	7.96
GTE Southwest	1st mtg	NC	8.500	2031	138.24	$ 100,000,000	6.15%	5.14%	0.01% A+	$ 138,240,000	138.24%		8,500,000	0.000064520	0.000549267	5.27
Bell Tel PA	deb	NC	8.750	2031	140.89	$ 125,000,000	6.21%	5.15%	0.01% A -	$ 176,112,500	140.89%		10,937,500	0.000080858	0.000688353	5.29
Verizon Global Funding	Notes	Z100	7.750	2032	147.30	$ 400,000,000	5.26%	4.06%	0.02% A-	$ 589,200,000	147.30%		31,000,000	0.000204207	0.001739446	4.12
US West Comm	Deb	101.073	6.875	2033	100.50	$ 1,000,000,000	6.84%	6.83%	0.09% BBB-	$ 1,005,000,000	100.50%		68,750,000	0.00085779	0.013145662	6.83
Comcast Corp	notes	z100	7.050	2033	133.2	$ 1,500,000,000	5.29%	4.46%	0.08% BBB+	$ 1,998,000,000	133.20%		105,750,000	0.000841345	0.00531503	4.49
Verizon MD	deb	z100	5.125	2033	104.54	$ 350,000,000	4.90%	4.76%	0.02% A-	$ 365,890,000	104.54%		17,937,500	0.000209409	0.001782733	4.76
Verizon NY (NY Telephone)	deb	100	7.000	2033	104.01	$ 200,000,000	6.73%	6.63%	0.02% A -	$ 208,020,000	104.01%		14,000,000	0.000166530	0.001417693	6.64
Bell South Corp	deb	Z100	6.550	2034	119.89	$ 700,000,000	5.46%	4.98%	0.04% A-	$ 839,230,000	119.89%		45,850,000	0.000437922	0.000786855	5
Bell South Corp	note	Z100	6.000	2034	112.14	$ 700,000,000	5.35%	5.04%	0.04% A-	$ 784,980,000	112.14%		42,000,000	0.000442945	0.000795882	5.07
SBC Communications	Global Notes	Z100	6.150	2034	123.11	$ 3,250,000,000	5.00%	4.41%	0.18% A-	$ 4,001,075,000	123.11%		199,875,000	0.001802116	0.003238033	4.48
SBC Communications	Global Notes	z100	6.450	2034	127.06	$ 2,000,000,000	5.08%	4.42%	0.11% A-	$ 2,541,200,000	127.06%		129,000,000	0.001109681	0.00199387	4.44
Pacific Bell	deb	101.12	6.625	2034	104.79	$ 550,000,000	6.32%	6.21%	0.04% A-	$ 576,345,000	104.79%		36,437,500	0.000428797	0.000779461	6.22
US West Comm	Deb		7.250	2035	105.73	$ 750,000,000	6.86%	6.74%	0.06% BBB	$ 792,975,000	105.73%		54,375,000	0.00063487	0.009729314	6.76
US West Comm	Deb	101.94	7.250	2035	105.73	$ 750,000,000	6.86%	6.74%	0.06% BBB-	$ 792,975,000	105.73%		54,375,000	0.00063487	0.009729314	6.76
Comcast Corp	notes	z100	5.650	2035	117.33	$ 750,000,000	4.82%	4.39%	0.04% BBB+	$ 879,975,000	117.33%		42,375,000	0.000413493	0.00261216	4.40
Comcast Corp	notes		6.500	2035	128.30	$ 2,250,000,000	5.07%	4.43%	0.13% BBB+	$ 2,886,750,000	128.30%		146,250,000	0.001252692	0.00791363	4.49
Verizon Global Funding	Notes	Z100	5.850	2035	125.61	$ 1,500,000,000	4.66%	4.04%	0.08% A-	$ 1,884,150,000	125.61%		87,750,000	0.000762142	0.006488237	4.1
AT&T Inc	Fixed Rate	z100	6.800	2036	133.49	$ 1,500,000,000	5.094%	4.42%	0.08% A-	$ 2,002,350,000	133.49%		102,000,000	0.000833025	0.001496774	4.44
AT&T Inc	Global Notes	z100	6.500	2037	130.78	$ 2,000,000,000	4.970%	4.38%	0.11% A-	$ 2,615,600,000	130.78%		130,000,000	0.001099771	0.001976062	4.44
Comcast Corp	notes	z100	6.950	2037	135.60	$ 2,000,000,000	5.13%	4.47%	0.11% BBB+	$ 2,712,000,000	135.60%		139,000,000	0.001123527	0.00709766	4.54
Comcast Corp	notes	z100	6.450	2037	128.31	$ 2,850,000,000	5.03%	4.48%	0.16% BBB+	$ 3,656,835,000	128.31%		183,825,000	0.001603285	0.010128433	4.49
Time Warner Cable	deb		6.550	2037	123.72	$ 1,500,000,000	5.29%	4.84%	0.09% BBB	$ 1,855,800,000	123.72%		98,250,000	0.000911798	0.010080184	4.86
Time Warner Cable	note		6.550	2037	123.72	$ 1,500,000,000	5.29%	4.84%	0.09% BBB	$ 1,855,800,000	123.72%		98,250,000	0.000911798	0.010080184	4.86
Verizon Communications	Notes	z100	6.250	2037	131.46	$ 750,000,000	4.75%	4.13%	0.04% A-	$ 985,950,000	131.46%		46,875,000	0.000389354	0.003314631	4.15
AT&T Inc	Global Notes	z100	6.300	2038	128.22	$ 2,750,000,000	4.913%	4.40%	0.15% A-	$ 3,526,050,000	128.22%		173,250,000	0.001518686	0.002728766	4.42
AT&T Inc	Global Notes	z100	6.400	2038	129.75	$ 1,250,000,000	4.933%	4.39%	0.07% A-	$ 1,621,875,000	129.75%		80,000,000	0.000689889	0.001239589	4.42
Comcast Corp	notes		6.400	2038	127.77	$ 1,000,000,000	5.01%	4.51%	0.06% BBB+	$ 1,277,700,000	127.77%		64,000,000	0.000565995	0.003575560	4.51
Time Warner Cable	deb		7.300	2038	132.86	$ 1,500,000,000	5.49%	4.95%	0.09% BBB	$ 1,992,900,000	132.86%		109,500,000	0.000933691	0.010322209	5
Verizon Communications	Notes		6.400	2038	135.38	$ 1,750,000,000	4.73%	4.09%	0.09% A-	$ 2,369,150,000	135.38%		112,000,000	0.000898585	0.007649789	4.1
Verizon Communications	Notes		6.900	2038	142.31	$ 1,250,000,000	4.85%	4.12%	0.06% A-	$ 1,778,875,000	142.31%		86,250,000	0.00064758	0.005512945	4.15
AT&T Inc	Global Notes		6.550	2039	131.41	$ 2,250,000,000	4.984%	4.46%	0.13% A-	$ 2,956,725,000	131.41%		147,375,000	0.00126146	0.002266585	4.49
CenturyTel Inc	fixed rate		7.600	2039	103.80	$ 800,000,000	7.32%	7.27%	0.07% BB	$ 830,400,000	103.80%		60,800,000	0.00073051	0.011195056	7.27
Time Warner Cable	deb		6.750	2039	126.83	$ 1,500,000,000	5.32%	4.89%	0.09% BBB	$ 1,902,450,000	126.83%		101,250,000	0.000920936	0.010181204	4.9
Verizon Communications	Notes		7.350	2039	148.23	$ 1,000,000,000	4.96%	4.22%	0.05% A-	$ 1,482,300,000	148.23%		73,500,000	0.000530711	0.004518025	4.24
Verizon Communications	Notes		8.950	2039	171.57	$ 1,250,000,000	5.22%	4.28%	0.07% A-	$ 2,144,625,000	171.57%		111,875,000	0.000672585	0.005725817	4.32
Comcast Corp	notes		6.400	2040	129.53	$ 1,000,000,000	4.94%	4.48%	0.06% BBB+	$ 1,295,300,000	129.53%		64,000,000	0.000562221	0.003551718	4.49
Time Warner Cable	deb		5.875	2040	116.52	$ 1,200,000,000	5.04%	4.76%	0.07% BBB	$ 1,398,240,000	116.52%		70,500,000	0.000718271	0.00794068	4.78
AT&T Inc	Fixed Rate		5.550	2041	120.01	$ 2,000,000,000	4.625%	4.30%	0.11% A-	$ 2,400,200,000	120.01%		111,000,000	0.001079415	0.001939486	4.32
CenturyTel Inc	sr notes		7.650	2042	104.51	$ 650,000,000	7.32%	7.27%	0.06% BB	$ 679,315,000	104.51%		49,725,000	0.000593735	0.009398976	7.27
Comcast Corp	fixed rate		4.650	2042	105.40	$ 1,250,000,000	4.41%	4.32%	0.07% NR	$ 1,317,500,000	105.40%		58,125,000	0.000677946	0.004282789	4.32
Pacific Bell	deb	102.89	7.375	2043	104.25	$ 300,000,000	7.07%	7.03%	0.03% A-	$ 312,750,000	104.25%		22,125,000	0.000264945	0.000476052	7.03
US West Comm	Deb	102.74	7.125	2043	103.61	$ 400,000,000	6.88%	6.84%	0.03% BBB-	$ 414,440,000	103.61%		28,500,000	0.00034359	0.005265523	6.83
Bell South Telecommunications	deb	NC	5.850	2045	105.69	$ 300,000,000	5.54%	5.47%	0.02% A-	$ 317,070,000	105.69%		17,550,000	0.000206062	0.00037025	5.47
Bell South Telecommunications	deb	NC	7.000	2095	122.49	$ 500,000,000	5.71%	5.70%	0.04% A-	$ 612,450,000	122.49%		35,000,000	0.000358252	0.000643705	5.71
Bell South Capital Funding	deb	Z100	7.120	2097	124.6	$ 500,000,000	5.71%	5.70%	0.04% A-	$ 623,000,000	124.60%		35,600,000	0.000358251	0.000643703	5.71
				Total		**$ 79,598,000,000**			**Total**	**$ 103,641,569,900**	**130.21%**	**6.92% $**	**5,507,070,000**	**4.65%**	**5.486%**	**5.138**

Embedded debt rate	**6.9186%**
Weighted average yield to maturity	**4.6452%**
Debt service / Market value	**5.3136%**
S&P YTM	**5.14%**
SAY	**5.00%**

Source: Standard & Poor's Bond Guide, January 2013, 2012 Yr End Prices

DATA INPUT

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

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

Guideline Companies		Stock Price	Revenues	Cash Flow	Earnings	Dividends	Cap'l Spending	Bk Value	Common	Calculated Debt	Wtd Avg YTM	Payout Ratio	Payout Ratio	ROE
Name	**Ticker**	**(4th Qtr Avg)**	**Per Share**	**Per Share**	**Per Share**	**Per Share**	**per share**	**Stock**	**Shares**	**mk to bk**		**calculated**	**V L**	**V L**
AT&T Inc	t	34.552	22.83	5.70	2.33	1.76	3.49	16.61	5,492,000,000	130.31%	4.124%	76%	75%	14.8%
Alaska Communication Sys	alsk	2.160	8.04	1.51	0.38	0.15	1.18	(0.76)	45,820,917	124.84%		39%	52%	nmf
Atlantic Tele-Network	atni	39.223	47.73	9.67	2.86	1.19	5.00	25.38	15,569,547	124.84%		42%	41%	11.5%
BCE Inc	bce	43.092	25.66	7.74	3.39	2.17	4.53	18.99	774,600,000	124.84%		64%	64%	18.0%
Cbeyond Inc	cbey	8.132	16.09	2.37	(0.08)	nil	2.05	5.67	30,328,928	124.84%		nmf	nil	nmf
CenturyLink Inc	ctl	38.868	29.36	10.33	2.66	2.90	4.66	30.82	625,800,000	106.11%	6.274%	109%	110%	8.6%
Cincinnati Bell	cbb	5.252	7.27	1.08	nmf	nmf	1.81	(4.08)	202,678,684	104.80%	7.998%	nmf	93%	nmf
Comcast Corp	cmcsa	36.703	23.79	5.26	2.29	0.60	1.90	18.77	2,630,048,098	126.66%	3.905%	26%	26%	12.2%
Consolidated Communications H	cnsl	15.582	12.60	3.15	0.15	1.55	1.95	3.30	40,000,000	124.84%		1033%	nmf	4.2%
Frontier	ftr	4.575	5.06	1.53	0.26	0.40	2.95	4.16	998,275,000	113.13%	6.320%	154%	157%	6.1%
General Communications Inc	gncma	8.850	17.10	3.37	0.23	nil	3.52	3.79	41,756,870	124.84%		nmf	nil	6.2%
Level 3 Communications	lvlt	20.770	20.84	5.02	(5.30)	nil	2.38	5.74	217,710,720	108.59%	7.313%	nmf	nmf	nmf
Neutral Tandem	iqnt	4.412	8.63	1.43	0.50	nil	0.81	3.02	31,918,000	124.84%		nmf	nil	16.6%
Shenandoah Telecom	shen	15.440	12.02	3.38	0.69	0.33	3.72	8.67	23,962,224	124.84%		48%	48%	8.0%
Telus Corp	tu	63.962	33.50	9.75	4.03	2.38	6.10	23.55	326,000,000	124.84%		59%	59%	17.1%
Time Warner Cable	twc	95.933	71.84	17.50	6.91	2.24	10.10	24.45	295,513,813	125.46%	3.668%	32%	32%	28.3%
tw telecom inc	twtc	25.525	9.65	2.40	0.50	nil	2.25	7.30	152,074,360	124.84%		nmf	nil	7.0%
Verizon Communications	vz	44.318	40.95	7.80	2.32	2.02	5.70	17.00	2,858,275,417	133.95%	4.002%	87%	80%	11.0%
Windstream	win	9.088	10.46	2.67	0.48	1.00	1.85	1.87	590,484,782	105.60%	6.335%	208%	nmf	25.5%
Value Line March 22, 2013		Yahoo	Value Line	Value Line	Value Line	Value Line	Value Line	Value Line	Value Line	Bond analysis	Bond analysis	calculated	Value Line	Value Line

SUPPORT FOR DIRECT CAPITALIZATION EQUITY COMPONENT

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

			2012		2013		2012		2013	
Company	**Ticker**	**Stock Average**	**Actual Earnings Ratio (EPS/P)**		**Projected Earnings Ratio (PEPS/P)**		**Cash Flow Ratio (CF/P)**		**Projected Cash Flow Ratio (PCF/P)**	
AT&T Inc	t	34.55	2.33	6.74%	2.55	7.38%	5.70	16.50%	6.00	17.37%
Alaska Communication Sy	alsk	2.16	0.38	17.59%	0.20	9.26%	1.51	69.91%	1.40	64.81%
Atlantic Tele-Network	atni	39.22	2.86	7.29%	2.50	6.37%	9.67	24.65%	9.00	22.95%
BCE Inc	bce	43.09	3.39	7.87%	2.95	6.85%	7.74	17.96%	7.35	17.06%
Cbeyond Inc	cbey	8.13	(0.08)	nmf	(0.30)	nmf	2.37	29.15%	2.20	27.05%
CenturyLink Inc	ctl	38.87	2.66	6.84%	2.70	6.95%	10.33	26.58%	10.15	26.11%
Cincinnati Bell	cbb	5.25	nmf	nmf	0.05	0.95%	1.08	20.56%	1.20	22.85%
Comcast Corp	cmcsa	36.70	2.29	6.24%	2.50	6.81%	5.26	14.33%	5.90	16.07%
Consolidated Communica	cnsl	15.58	0.15	0.96%	0.55	3.53%	3.15	20.22%	3.80	24.39%
Frontier	ftr	4.58	0.26	5.68%	0.28	6.12%	1.53	33.44%	1.45	31.69%
General Communications	gncma	8.85	0.23	2.60%	0.30	3.39%	3.37	38.08%	3.50	39.55%
Level 3 Communications	lvlt	20.77	(5.30)	nmf	0.37	1.78%	5.02	24.17%		
Neutral Tandem	iqnt	4.41	0.50	11.33%	0.20	4.53%	1.43	32.41%	1.15	26.07%
Shenandoah Telecom	shen	15.44	0.69	4.47%	0.65	4.21%	3.38	21.89%	3.55	22.99%
Telus Corp	tu	63.96	4.03	6.30%	4.25	6.64%	9.75	15.24%	10.10	15.79%
Time Warner Cable	twc	95.93	6.91	7.20%	6.95	7.24%	17.50	18.24%	18.50	19.28%
tw telecom inc	twtc	25.53	0.50	1.96%	0.55	2.15%	2.40	9.40%	2.60	10.19%
Verizon Communications	vz	44.32	2.32	5.23%	2.75	6.21%	7.80	17.60%	8.10	18.28%
Windstream	win	9.09	0.48	5.28%	0.45	4.95%	2.67	29.38%	2.40	26.41%
		Mean		**6.48%**		**5.30%**		**25.25%**		**24.94%**
		Median		**6.27%**		**6.16%**		**21.89%**		**22.97%**
		Trimmed Mean		**6.07%**		**5.32%**		**23.55%**		**23.37%**
		Max		**17.59%**		**9.26%**		**69.91%**		**64.81%**
		Min		**0.96%**		**0.95%**		**9.40%**		**10.19%**
		stdev		**0.04**		**0.02**		**0.13**		**0.12**
		cov		**0.60**		**0.42**		**0.52**		**0.48**
		harmean		**4.13%**		**3.78%**		**21.05%**		**21.38%**
Source:		**Say**		**6.00%**		**5.50%**		**21.00%**		**21.50%**

Actual earnings: Value Line / Q4 average stock price

Estimated Earnings: Value Line / Q4 average stock price

Actual Cash Flow: Value Line / Q4 average stock price

Estimated Cash Flow: Value Line / Q4 average stock price

AVERAGE FOURTH QUARTER STOCK PRICE

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

TELECOMMUNICATIONS

ATT	T							**Q4 Average**
Date	Open	High	Low	Close	Volume	Adj Close		
12/03/2012	34.23	34.69	33.1	33.71	25837000		33.28	
11/01/2012	34.84	35.38	32.71	34.13	29329800		33.7	
10/01/2012	37.63	38.43	33	34.59	27435100		34.15	**34.552**

Alaska	ALSK							
Date	Open	High	Low	Close	Volume	Adj Close		
12/03/2012	2.22	2.25	1.93	1.94	372900		1.94	
11/01/2012	2.3	2.31	1.9	2.21	571600		2.21	
10/01/2012	2.25	2.37	2.2	2.3	296200		2.3	**2.160**

Cbeyond	CBEY							
Date	Open	High	Low	Close	Volume	Adj Close		
12/03/2012	7.5	9.24	7.04	9.04	164900		9.04	
11/01/2012	7.72	8.33	6.65	7.43	121600		7.43	
10/01/2012	9.91	10.11	7.42	7.66	128400		7.66	**8.132**

CenturyLink	CTL							
Date	Open	High	Low	Close	Volume	Adj Close		
12/03/2012	38.99	40.16	37.61	39.12	5371200		39.12	
11/01/2012	38.39	40.49	36.52	38.84	5073000		38.11	
10/01/2012	40.15	40.41	38.02	38.38	4893100		37.66	**38.868**

Cincinnati Bell	CBB							
Date	Open	High	Low	Close	Volume	Adj Close		
12/03/2012	5.34	5.58	4.79	5.48	2123700		5.48	
11/01/2012	5.21	5.36	4.74	5.33	2124200		5.33	
10/01/2012	5.73	5.89	5.15	5.21	1914300		5.21	**5.252**

Frontier	FTR	(was Citizens)						
Date	Open	High	Low	Close	Volume	Adj Close		
12/03/2012	4.82	4.88	4.09	4.28	14470400		4.28	
11/01/2012	4.71	4.82	4.14	4.81	10240700		4.71	
10/01/2012	4.96	4.98	4.54	4.73	9384600		4.63	**4.575**

Comcast	CMCSA							
Date	Open	High	Low	Close	Volume	Adj Close		
12/03/2012	37.37	38.22	36.3	37.36	12205900		37.36	
11/01/2012	37.66	37.96	34.95	37.2	11969100		37.04	
10/01/2012	35.95	37.85	34.94	37.53	13440400		37.36	**36.703**

Comcast	CMCSK							
Date	Open	High	Low	Close	Volume	Adj Close		
12/03/2012	36.05	36.91	34.95	35.92	4113500		35.92	
11/01/2012	36.34	36.9	34	36.04	3312800		35.88	
10/01/2012	34.94	36.87	34.05	36.44	3091400		36.27	**35.613**

Level 3	LVLT							
Date	Open	High	Low	Close	Volume	Adj Close		
12/03/2012	18.8	23.85	18.37	23.11	1290700		23.11	
11/01/2012	20.68	21.2	17.95	18.86	1210300		18.86	
10/01/2012	22.55	23.63	19.62	20.5	1655400		20.5	**20.770**

Verizon VZ

Date	Open	High	Low	Close	Volume	Adj Close	
12/03/2012	44.47	44.94	42.49	43.27	12717000	42.77	
11/01/2012	44.91	45.45	40.51	44.12	14285600	43.61	
10/01/2012	45.64	48.77	43.75	44.64	13973900	44.13	**44.318**

Windstream WIN

Date	Open	High	Low	Close	Volume	Adj Close	
12/03/2012	8.38	9	8.18	8.28	8446300	8.28	
11/01/2012	9.52	9.7	7.86	8.38	9605400	8.14	
10/01/2012	10.07	10.27	9.52	9.52	6431500	9.24	**9.088**

Telus TU NYSE

Date	Open	High	Low	Close	Volume	Adj Close	
12/03/2012	65.26	66.54	64.01	65.14	58200	65.14	
11/01/2012	64.37	65.24	61.62	64.83	88600	64.19	
10/01/2012	62.64	65.15	61.21	64.31	95200	63.68	**63.962**

BCE BCE

Date	Open	High	Low	Close	Volume	Adj Close	
12/03/2012	42.39	43.92	42.36	42.94	691700	42.94	
11/01/2012	43.49	43.63	41.18	42.3	519600	41.75	
10/01/2012	44.03	45.11	42.35	43.66	542200	43.09	**43.092**

Consolidated Com CNSL

Date	Open	High	Low	Close	Volume	Adj Close	
12/03/2012	15.15	15.99	14.8	15.91	223300	15.56	
11/01/2012	16.92	16.93	12.97	15.04	235300	14.7	
10/01/2012	17.21	17.54	15.26	15.42	188600	15.08	**15.582**

Shenandoah Tele SHEN

Date	Open	High	Low	Close	Volume	Adj Close	
12/03/2012	13.95	16.6	13.15	15.31	80200	15.31	
11/01/2012	15.78	15.88	12.57	13.9	64100	13.9	
10/01/2012	17.67	18.99	15.45	15.72	58000	15.35	**15.440**

TW Telecom TWTC

Date	Open	High	Low	Close	Volume	Adj Close	
12/03/2012	25.74	25.86	24.77	25.47	1035800	25.47	
11/01/2012	25.46	25.99	23.65	25.69	907600	25.69	
10/01/2012	27.2	27.86	25.02	25.46	1484100	25.46	**25.525**

Source:
finance.yahoo.com
Historical Stock Quotes
01/24/2012

Time Warner Cab TWC

Date	Open	High	Low	Close	Volume	Adj Close	
12/03/2012	95.17	97.43	93.23	97.19	1615100	97.19	
11/01/2012	99.16	100.02	89.06	94.89	2187400	94.89	
10/01/2012	95.84	100.5	95.36	99.15	1867400	98.55	**95.93**

Atlantic Tele-Netw ATNI

Date	Open	High	Low	Close	Volume	Adj Close	
12/03/2012	37.29	37.82	34.92	36.71	81900	36.71	
11/01/2012	41.49	42.48	36.36	36.88	35100	36.63	
10/01/2012	42.92	44.83	38.93	41.44	33700	41.15	**39.22**

General Commun GNCMA

Date	Open	High	Low	Close	Volume	Adj Close	
12/03/2012	8.36	9.78	7.82	9.59	132200	9.59	
11/01/2012	8.77	9.19	7.36	8.43	81500	8.43	
10/01/2012	9.83	10.43	8.52	8.74	83300	8.74	**8.85**

Neutral Tandem IQNT

Date	Open	High	Low	Close	Volume	Adj Close	
12/03/2012	2.97	3.05	2.2	2.57	892600	2.57	
11/01/2012	4.67	4.98	2.1	2.69	878800	2.69	
10/01/2012	9.41	9.52	4.62	4.63	470500	4.63	**4.41**

IMPLIED PREMIUMS FOR US MARKET

Last updated January 5, 2013

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

Year	*arnings Yiel*	*Dividend Yiel*	*S&P 500*	*Earnings*	*Dividends*	*nge in Earn*	*nge in Divid*	*T.Bill Rate*	*T.Bond Rate*	*Bond-Bill*	*oothed Grow*	*d Premium (*	*t Growth Es*	*Implied Premium (FCFE)*	*ERP/Riskfree Rate*
1960	5.34%	3.41%	58.11	3.10	1.98			0.0266	2.76%	0.10%	2.45%				
1961	4.71%	2.85%	71.55	3.37	2.04	8.60%	2.91%	2.13%	2.35%	0.22%	2.41%	2.92%		2.92%	1.24
1962	5.81%	3.40%	63.1	3.67	2.15	8.79%	5.21%	2.73%	3.85%	1.12%	4.05%	3.56%		3.56%	0.92
1963	5.51%	3.13%	75.02	4.13	2.35	12.75%	9.45%	3.12%	4.14%	1.02%	4.96%	3.38%		3.38%	0.82
1964	5.62%	3.05%	84.75	4.76	2.58	15.23%	10.08%	3.54%	4.21%	0.67%	5.13%	3.31%		3.31%	0.79
1965	5.73%	3.06%	92.43	5.30	2.83	11.20%	9.42%	3.93%	4.65%	0.72%	5.46%	3.32%		3.32%	0.71
1966	6.74%	3.59%	80.33	5.41	2.88	2.23%	1.96%	4.76%	4.64%	-0.12%	4.19%	3.68%		3.68%	0.79
1967	5.66%	3.09%	96.47	5.46	2.98	0.85%	3.37%	4.21%	5.70%	1.49%	5.25%	3.20%		3.20%	0.56
1968	5.51%	2.93%	103.86	5.72	3.04	4.81%	2.09%	5.21%	6.16%	0.95%	5.32%	3.00%		3.00%	0.49
1969	6.63%	3.52%	92.06	6.10	3.24	6.66%	6.49%	6.58%	7.88%	1.30%	7.55%	3.74%		3.74%	0.47
1970	5.98%	3.46%	92.15	5.51	3.19	-9.72%	-1.61%	6.53%	6.50%	-0.03%	4.78%	3.41%		3.41%	0.52
1971	5.46%	3.10%	102.09	5.57	3.16	1.15%	-0.74%	4.39%	5.89%	1.50%	4.57%	3.09%		3.09%	0.52
1972	5.23%	2.70%	118.05	6.17	3.19	10.76%	0.71%	3.84%	6.41%	2.57%	5.21%	2.72%		2.72%	0.42
1973	8.16%	3.70%	97.55	7.96	3.61	28.93%	13.24%	6.93%	6.90%	-0.03%	8.30%	4.30%		4.30%	0.62
1974	13.64%	5.43%	68.56	9.35	3.72	17.48%	3.14%	8.00%	7.40%	-0.60%	6.42%	5.59%		5.59%	0.76
1975	8.55%	4.14%	90.19	7.71	3.73	-17.54%	0.30%	5.80%	7.76%	1.96%	5.99%	4.13%		4.13%	0.53
1976	9.07%	3.93%	107.46	9.75	4.22	26.39%	13.10%	5.08%	6.81%	1.73%	8.19%	4.55%		4.55%	0.67
1977	11.43%	5.11%	95.1	10.87	4.86	11.53%	15.07%	5.12%	7.78%	2.66%	9.52%	5.92%		5.92%	0.76
1978	12.11%	5.39%	96.11	11.64	5.18	7.07%	6.60%	7.18%	9.15%	1.97%	8.48%	5.72%		5.72%	0.63
1979	13.48%	5.53%	107.94	14.55	5.97	25.01%	15.23%	10.38%	10.33%	-0.05%	11.70%	6.45%		6.45%	0.62
1980	11.04%	4.74%	135.76	14.99	6.44	3.01%	7.81%	11.24%	12.43%	1.19%	11.01%	5.03%		5.03%	0.40
1981	12.39%	5.57%	122.55	15.18	6.83	1.31%	6.08%	14.71%	13.98%	-0.73%	11.42%	5.73%		5.73%	0.41
1982	9.83%	4.93%	140.64	13.82	6.93	-8.95%	1.58%	10.54%	10.47%	-0.07%	7.96%	4.90%		4.90%	0.47
1983	8.06%	4.32%	164.93	13.29	7.12	-3.84%	2.76%	8.80%	11.80%	3.00%	9.09%	4.31%		4.31%	0.37
1984	10.07%	4.68%	167.24	16.84	7.83	26.69%	9.85%	9.85%	11.51%	1.66%	11.02%	5.11%		5.11%	0.44
1985	7.42%	3.88%	211.28	15.68	8.20	-6.91%	4.74%	7.72%	8.99%	1.27%	7.89%	4.03%	6.75%	3.84%	0.43
1986	5.96%	3.38%	242.17	14.43	8.19	-7.93%	-0.15%	6.16%	7.22%	1.06%	5.54%	3.36%	6.96%	3.58%	0.50
1987	6.49%	3.71%	247.08	16.04	9.17	11.10%	11.99%	5.47%	8.86%	3.39%	9.66%	4.18%	8.58%	3.99%	0.45
1988	8.20%	3.68%	277.72	24.12	10.22	50.42%	11.49%	6.35%	9.14%	2.79%	9.76%	4.12%	7.67%	3.77%	0.41
1989	6.80%	3.32%	353.4	24.32	11.73	0.83%	14.80%	8.37%	7.93%	-0.44%	9.58%	3.85%	7.46%	3.51%	0.44
1990	6.58%	3.74%	330.22	22.65	12.35	-6.87%	5.26%	7.81%	8.07%	0.26%	7.39%	3.92%	7.19%	3.89%	0.48
1991	4.58%	3.11%	417.09	19.30	12.97	-14.79%	5.03%	7.00%	6.70%	-0.30%	6.34%	3.27%	7.81%	3.48%	0.52
1992	4.16%	2.90%	435.71	20.87	12.64	8.13%	-2.59%	5.30%	6.68%	1.38%	4.67%	2.83%	9.83%	3.55%	0.53
1993	4.25%	2.72%	466.45	26.90	12.69	28.89%	0.41%	3.50%	5.79%	2.29%	4.73%	2.74%	8.00%	3.17%	0.55
1994	5.89%	2.91%	459.27	31.75	13.36	18.03%	5.34%	5.00%	7.82%	2.82%	7.23%	3.06%	7.17%	3.55%	0.45
1995	5.74%	2.30%	615.93	37.70	14.17	18.74%	6.00%	3.50%	5.57%	2.07%	5.65%	2.44%	6.50%	3.29%	0.59
1996	4.83%	2.01%	740.74	40.63	14.89	7.77%	5.10%	5.00%	6.41%	1.41%	6.13%	2.11%	7.92%	3.20%	0.50
1997	4.08%	1.60%	970.43	44.09	15.52	8.52%	4.25%	5.35%	5.74%	0.39%	5.45%	1.67%	8.00%	2.73%	0.48
1998	3.11%	1.32%	1229.23	44.27	16.20	0.41%	4.37%	4.33%	4.65%	0.32%	4.60%	1.38%	7.20%	2.26%	0.49
1999	3.07%	1.14%	1469.25	51.68	16.71	16.74%	3.16%	5.37%	6.44%	1.07%	5.75%	1.20%	12.50%	2.05%	0.32
2000	3.94%	1.23%	1320.28	56.13	16.27	8.61%	-2.65%	5.73%	5.11%	-0.62%	3.71%	1.65%	12.00%	2.87%	0.56
2001	3.85%	1.37%	1148.09	38.85	15.74	-30.79%	-3.24%	1.80%	5.05%	3.25%	3.56%	1.73%	10.30%	3.62%	0.72
2002	5.23%	1.83%	879.82	46.04	16.08	18.51%	2.15%	1.20%	3.81%	2.61%	3.57%	2.29%	8.00%	4.10%	1.08
2003	4.87%	1.61%	1111.91	54.69	17.88	18.79%	11.19%	1.00%	4.25%	3.25%	5.35%	2.12%	11.00%	3.69%	0.87
2004	5.58%	1.60%	1211.92	67.68	19.407	23.75%	8.54%	2.18%	4.22%	2.04%	4.90%	2.02%	8.50%	3.65%	0.86
2005	5.47%	1.79%	1248.29	76.45	22.38	12.96%	15.32%	4.31%	4.39%	0.08%	6.16%	2.20%	8.00%	4.08%	0.93
2006	6.18%	1.77%	1418.3	87.72	25.05	14.74%	11.93%	4.88%	4.70%	-0.18%	5.93%	1.97%	12.50%	4.16%	0.89
2007	5.62%	1.89%	1468.36	82.54	27.73	-5.91%	10.70%	3.31%	4.02%	0.71%	5.03%	2.06%	5.00%	4.37%	1.09
2008	7.24%	3.11%	903.25	65.39	28.05	-20.78%	1.15%	1.59%	2.21%	0.62%	2.11%	4.05%	4.00%	6.43%	2.91
2009	5.35%	2.00%	1115.10	59.65	22.31	-8.78%	-20.46%	0.14%	3.84%	3.70%	0.28%	2.60%	7.20%	4.36%	1.14
2010	6.65%	1.84%	1257.64	83.66	23.12	40.25%	3.63%	0.13%	3.29%	3.16%	3.33%	2.24%	6.95%	5.20%	1.58
2011	7.72%	2.07%	1257.60	97.05	26.02	16.01%	12.54%	0.03%	1.88%	1.85%	2.75%	2.71%	7.18%	6.04%	3.21
2012	7.18%	2.13%	1426.19	102.47	30.44	5.58%	16.99%	0.05%	1.76%	1.71%	2.93%	2.47%	5.27%	5.78%	3.28

Source: http://pages.stern.nyu.edu/~adamodar/