



COST OF CAPITAL STUDY

YIELD CAPITALIZATION

2025 ASSESSMENT YEAR

APPENDIX C

WIRELESS

EQUITY RATE							9.75%	
CAPITAL ASSET PRICING MODEL								PAGE
CAPM Ex Ante							7.67%	6
DIVIDEND GROWTH MODELS (Single Stage)								
Value Line, based on Dividends Growth							7.55%	7
Value Line, based on Earnings Growth							9.50%	8
Value Line, based on Return on Equity							9.50%	9
FCFE GROWTH MODEL (Multi Stage)							11.40%	10
RANGE							7.55% - 11.4%	
DEBT RATE							5.85%	11
SECURED DEBT (LEASE) RATE							5.25%	11
MARKET CAPITAL STRUCTURE								
Equity	65%	x	9.75%	=			6.34%	3
Debt	35%	x	5.85%	=	2.05%			3
Marginal Tax Rate	24%	=	(1-.24)	x	2.05%		<u>1.56%</u>	3
WEIGHTED AVERAGE COST OF CAPITAL							7.9%	

SUPPORT FOR GUIDELINE COMPANIES

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

WIRELESS

Capital Structure at Book Value

Company	Ticker	Beta	Fin'l Strength	Operting Margin	Trailing P/E Ratio	Div'd Yield	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity
AT&T Inc	T	0.80	B++	14.5%	10.2	4.87%	120,903,619,650	48.9%	-	0.0%	126,375,000,000	51.1%	247,278,619,650
Verizon	VZ	0.65	A-	14.4%	9.6	6.80%	94,085,141,100	42.2%	-	0.0%	128,878,000,000	57.8%	222,963,141,100
US Cellular	USM	0.65	B+	19.0%	-	0.00%	4,699,900,000	62.0%	-	0.0%	2,882,000,000	38.0%	7,581,900,000
T-Mobile	TMUS	0.75	B+	38.4%	27.4	1.60%	66,031,710,300	45.9%	-	0.0%	77,714,000,000	54.1%	143,745,710,300
Mean		0.71	B+	22%	11.8	3.32%	71,430,092,763	49.8%	-	0.0%	83,962,250,000	50.2%	621,569,371,050
Weighted Mean							285,720,371,050	46.0%		0.00%	335,849,000,000	54.0%	
Median		0.70			9.9	3.24%		47.4%		0.0%		52.6%	
Std Dev		0.08			11.40	3.08%		8.6%		0.0%		8.6%	
Coeff Var		0.11			0.97	92.85%		17.3%		0.0%		17.1%	
Max		0.80			27.40	6.80%		62.0%		0.0%		57.8%	
Min		0.65			-	0.00%		42.2%		0.0%		38.0%	
Harmonic Mean		0.71						48.75%				48.98%	

Say 0.70

SUPPORT FOR CAPITAL STRUCTURE
MARKET VALUE

WASHINGTON STATE DEPARTMENT OF REVENUE
2025 ASSESSMENT YEAR
WIRELESS

Capital Structure at Market Value

Company	Ticker	Stock Price	Common Shares	Common Stock	%	Preferred Stock	%	Debt	%	Total Debt & Equity
AT&T Inc	T	22.77	7,175,289,000	163,381,330,530	58.9%	-	0.0%	114,167,000,000	41.1%	277,548,330,530
Verizon	VZ	39.99	4,209,626,000	168,342,943,740	55.1%	-	0.0%	137,016,000,000	44.9%	305,358,943,740
US Cellular	USM	62.72	86,000,000	5,393,920,000	65.9%	-	0.0%	2,785,000,000	34.1%	8,178,920,000
T-Mobile	TMUS	220.73	1,160,487,000	256,154,295,510	78.0%		0.0%	72,147,000,000	22.0%	328,301,295,510
			Mean	593,272,489,780	64.5%	-	0.0%	326,115,000,000	35.5%	919,387,489,780
			Weighted Mean		64.5%		0.00%		35.5%	
			Median		62.4%		0.0%		37.6%	
			Harmonic Mean		63.4%		0.0%		32.9%	
			Std Dev		10.1%		0.0%		10.1%	
			Coeff Var		15.6%		0.0%		28.4%	
			Max		78.0%		0.0%		44.9%	
			Min		55.1%		0.0%		22.0%	

Source:

Say65%0%35%

Stock Price: Yahoo

Market Value Debt: Bond Analysis

SUPPORT FOR MARKET MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

WIRELESS

Company	Ticker	Stock Price	Revenues	Multiple	Cash Flow	Multiple	Earnings	Multiple	Book Value	Multiple
AT&T Inc	T	22.77	17.00	1.3	5.30	4.3	2.25	10.1	16.85	1.4
Verizon	VZ	39.99	32.05	1.2	8.95	4.5	4.60	8.7	22.35	1.8
US Cellular	USM	62.72	43.80	1.43	7.40	8.5	0.45	139.4	54.65	1.1
T-Mobile	TMUS	220.73	69.05	3.2	20.70	10.7	9.55	23.1	56.90	3.88
Mean				1.8		7.0		45.3		2.0
Median				1.4		6.5		16.6		1.6
Harmonic Mean				1.6		6.0		15.1		1.6
Max				3.2		10.7		139.4		3.9
Min				1.25		4.30		8.69		1.15
Std Dev				0.9		3.1		63.0		1.3
Coefficient of Variation				0.5		0.4		1.4		0.6
Harmonic Mean				1.6		6.0		15.1		1.6
Percentile .25				1.3		4.4		9.8		1.3
Percentile .75				1.9		9.0		52.2		2.3
Say				1.40		6.00		15.00		1.50

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
CAPITAL ASSET PRICING MODEL
WASHINGTON STATE DEPARTMENT OF REVENUE
2025 ASSESSMENT YEAR
WIRELESS

$$\text{Ex Ante}$$

$$K_e = R_f + B (R_p)$$

Ke =	Cost of Equity			7.67%
				to page 1
		Rm =	rate of return	8.91%
		Rf =	risk free rate	4.78%
		Rp =	risk premium	4.13%
		B =	Beta	0.70
Rp =	Risk Premium			4.13%
				to above
	Shannon Pratt and Roger Grabowski		3.5 - 6%	
	Cost of Capital, Applications and Examples,			
	Dr. Aswath Damodaran		4.33%	chart page 15
	http://pages.stern.nyu.edu/~adamodar/		4.13%	adjusted for Rf
	2024 Implied Premium			
Rf =	Risk Free Rate			4.78%
	Value Line Investment Survey, Selected Yields January 12, 2024, page 829			
	as of 12-31-24			
	US Treasury Securities year end data			
	5 year		4.37%	
	10 year		4.55%	
	30 year		4.77%	
	Federal Reserve Statistical Release (http://www.federalreserve.gov/Releases/H15/Current/)			
	As of 12-31-24			
	Treasury Constant Maturities			
	5 year		4.38%	
	10 year		4.58%	
	20 year		4.86%	
	30 year		4.78%	
	20 year IIPS		2.41%	2.45%
	30 year IIPS		2.48%	2.30%
				IIPS inflation indicator
Inflation				2.30%
				to appraisal template
	The Livingston Survey December 20, 2024, page 2, 8			
	Inflation median (measured by the Consumer Price Index) over next 1		2.28%	
Gross Domestic Product (GDP)				4.10%
				real GDP + inflation est
	Federal Reserve Projected Long Run Real GDP Growth			
	Median Projection Value From Dec 18, 2024 Report, Table 1		1.80%	
	https://www.federalreserve.gov/monetarypolicy/files/fomcproptabl20241218.pdf			
	Congressional Budget Office Real GDP Economic Projections			
	The Budget and Economic Outlook 2025-2035			Table C-3, pg 29
	Average Percentage Change Year To Year	2025-2029	2.20%	
	https://www.cbo.gov/system/files/2025-01/60870-	2030-2035	1.90%	
	Federal Reserve Bank of Philadelphia			
	The Livingston Survey, December 20, 2024, page 8			
	Average Real GDP Growth Rate for Next 10 Years		2.11%	
	https://www.philadelphiafed.org/research-and-data/real-time-center/livingston-survey			

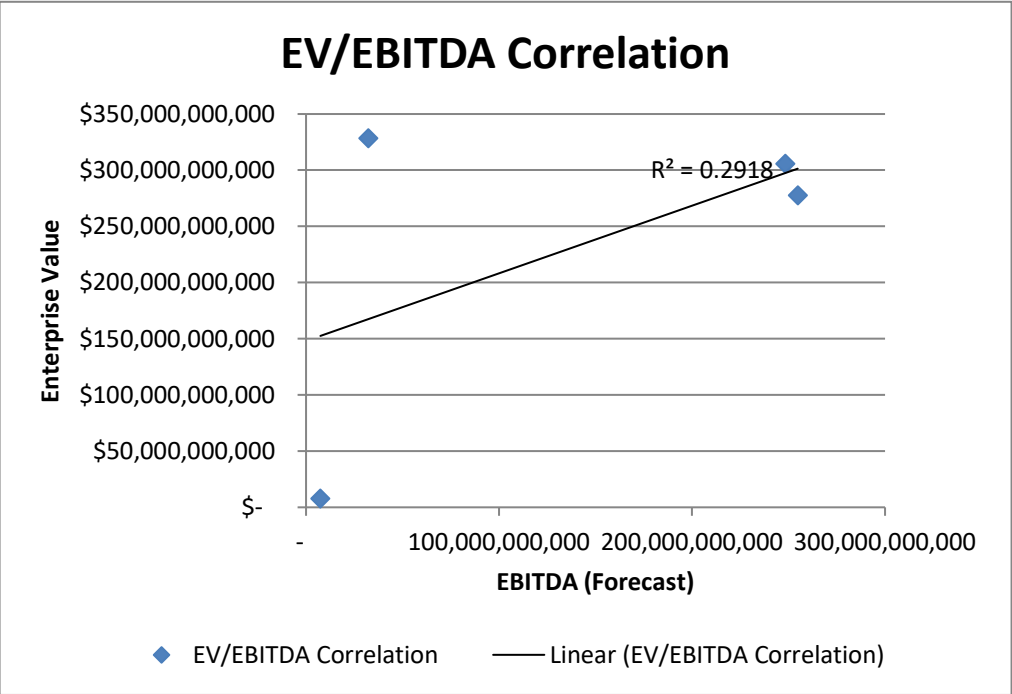
ENTERPRISE VALUE MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

WIRELESS

Guideline Companies	Ticker	Enterprise Value	EBITDA	EV / EBITDA	One Year Cash Flow Rate Change VL	EBITDA	EV / EBITDA	Revenue	EV/Sales	Cash Flow	Debt Service	EV / CF
			historic	historic	forecast	forecast	forecast	9%	Forecast	Forecast	Forecast	
AT&T Inc	T	\$ 277,548,330,530	241,092,000,000	1.15	5.7%	254,738,716,981	1.09	125,977,111,650	2.20	40,197,824,800	6,678,769,500	5.92
Verizon	VZ	\$ 305,358,943,740	246,982,000,000	1.24	0.6%	248,361,787,709	1.23	138,075,732,800	2.21	37,887,336,000	8,015,436,000	6.65
US Cellular	USM	\$ 7,717,920,000	6,084,000,000	1.27	22.3%	7,440,567,568	1.04	3,844,200,000	2.01	769,250,000	162,922,500	8.28
T-Mobile	TMUS	\$ 328,301,295,510	29,403,000,000	11.17	9.9%	32,314,891,304	10.16	87,442,695,450	3.75	25,974,698,750	4,220,599,500	10.87
Mean							3.38		2.54			7.93
Median							1.16		2.21			7.47
Max							10.16		3.75			10.87
Min							1.04		2.01			5.92
Std Dev							4.52		0.81			2.19
Coefficient of Variation							1.34		0.32			0.28
Harmonic Mean							1.43		2.39			7.52
Say							1.40		2.40			7.50



1.06 put in income direct excluding IPP
5.70 put in income direct including IPP

Forecast EV/EBITDA By Rank

Guideline Companies	EV/EBITDA forecast	1.06 Average
US Cellular	1.04	1.06 Median
AT&T Inc	1.09	1.06 Say
Verizon	1.23	5.69 Average
T-Mobile	10.16	5.69 Median
		5.70 Say

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE
2025 ASSESSMENT YEAR
WIRELESS

Based on Dividend Growth

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

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

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Dividend Growth (GD) VL	Ke	Forecast Dividend Growth	Ke Forecast Growth	Sustainable Dividend Growth	Ke Sustainable Growth
AT&T Inc	T	22.77	1.11	4.87%	1.24%	6.11%	1.28%	6.15%	1.28%	6.15%
Verizon	VZ	39.99	2.72	6.80%	2.96%	9.76%	3.19%	9.99%	3.19%	9.99%
US Cellular	USM	62.72	0.00		0.00%				4.10%	
T-Mobile	TMUS	220.73	3.54	1.60%	0.00%				4.10%	
			Mean	4.43%		7.94%				8.07%
			Median	4.87%		7.94%				8.07%
			Harmonic Mean	3.07%		7.52%				7.62%
			Std Dev	2.63%						2.71%
			Coeff Var	59.36%		0.00%				33.60%
			Max	6.80%		9.76%				9.99%
			Min	1.60%		6.11%				6.15%

7.50%

7.60%

Say

7.55%

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

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

WIRELESS

Based on Earnings Growth

9.0%

$K_e = (D_1 / P_0) + G$

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

Company	Ticker	Stock Price (Po)	Expected Earnings (D1)	Yield (D1/Po)	Earnings Growth (G) VL	Ke	Forecast Earnings Growth	Ke Forecast Growth	Sustainable Earnings Growth	Ke Sustainable Growth
AT&T Inc	T	22.77	2.40	10.54%	4.00%	14.54%	4.42%	14.96%	4.10%	14.64%
Verizon	VZ	39.99	4.70	11.75%	0.50%	12.25%	0.51%	12.26%	0.51%	12.26%
US Cellular	USM	62.72	0.90	1.43%	3.50%	4.93%	3.82%	5.26%	3.82%	5.26%
T-Mobile	TMUS	220.73	11.05	5.01%	20.00%	25.01%	33.10%	38.11%	4.10%	9.11%
			Mean			14.18%				10.32%
			Median			13.40%				10.68%
			Harmonic Mean			10.18%				8.89%
			Std Dev			8.30%				4.06%
			Coeff Var			58.50%				39.40%
			Max			25.01%				14.64%
			Min			4.93%				5.26%

10.00%

9.00%

Say

9.50%

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE
2025 ASSESSMENT YEAR
WIRELESS

Based on Return on Equity

Ke = (D1 / Po) + G
Ke = Cost of Equity
D1 = Expected Dividends
E1 = Expected Earnings
Po = Current Price
G = Sustainable Growth
b = Retained Earnings % (plowback)
ROE = Return on Equity

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	b (1- payout ratio)	ROE	Growth (G) (b*ROE)	Ke Dividends	Expected Earnings (E1)	Ke Earnings
AT&T Inc	T	22.77	1.11	4.87%	59.0%	10.54%	6.219%	11.09%	2.40	16.76%
Verizon	VZ	39.99	2.72	6.80%	42.0%	11.75%	4.936%	11.74%	4.70	16.69%
US Cellular	USM	62.72	0.00		100.0%	1.43%	1.435%		0.90	
T-Mobile	TMUS	220.73	3.54	1.60%	68.0%	5.01%	3.404%	5.01%	11.05	8.41%
Mean								9.28%		13.95%
Median								11.09%		16.69%
Harmonic Mean								8.00%		12.58%
Std Dev								3.71%		4.80%
Coeff Var								40.02%		34.40%
Max								11.74%		16.76%
Min								5.01%		8.41%
								8.00%		12.50%

Say 9.50%

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT

FREE CASH FLOW TO EQUITY MODEL

Washington State Department of Revenue
 2025 ASSESSMENT YEAR

Based on Earnings Growth

$$K_e = (FCFE / P) + G$$

- Ke = Cost of Equity
- FCFE = Free Cash Flow to Equity
- P = Current Price
- G = Sustainable Growth

Company	Ticker	Stock Price	Expected Earnings	P/E	Payout Ratio	ROE	Ke
AT&T Inc	T	22.77	2.40	9.49	41.00%	13.50%	13.17%
Verizon	VZ	39.99	4.70	8.51	58.00%	19.50%	13.59%
US Cellular	USM	62.72	0.90	69.69	0.00%	1.50%	
T-Mobile	TMUS	220.73	11.05	19.98	32.00%	16.50%	8.77%
Mean				26.92	32.75%	12.75%	11.85%
Harmonic Mean				13.92		4.69%	11.39%
Median				14.73	36.50%	15.00%	13.17%
Max				69.69	58.00%	19.50%	13.59%
Min				8.51	0.00%	1.50%	8.77%
Std Dev				28.98	24.35%	7.89%	2.67%
Coefficient of Variation				1.08	74.35%	61.88%	22.56%
Say							11.40%

SUPPORT FOR DEBT RATING AND DEBT YIELD RATE

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

WIRELESS

Company	Ticker	Mergent's Ratings	S&P Ratings	WAYTM	S&P YTM (avg)	Mergent's Ratings	S&P Ratings	Mergent's	S&P	
AT&T Inc	T		BBB	5.43%	5.51%	11	11	Aaa1	AAA+	1
Verizon	VZ		BBB+	5.49%	5.28%	10	10	Aaa2	AAA	2
US Cellular	USM		BB	6.70%	5.18%	14	14	Aaa3	AAA-	3
T-Mobile	TMUS		BBB-	5.17%	5.18%	12	12	Aa1	AA+	4
Overall Average Debt Rating			BBB	5.70%	5.29%	11.8	11.8	Aa2	AA	5

5.34%

	All issues	20+ year maturities
Guideline Companies, All Ratings	5.38%	5.85%

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Mergent's Bond Record February 2025

Corporate	Aaa	Aa	A	Baa
October	4.95%	5.17%	5.33%	5.63%
November	5.14%	5.33%	5.49%	5.78%
December	5.20%	5.37%	5.53%	5.80%
4th Qtr Average	5.10%	5.29%	5.45%	5.74%
2024 Average	5.04%	5.27%	5.43%	5.75%
Public Utilities	Aaa	Aa	A	Baa
October		5.29%	5.41%	5.61%
November		5.43%	5.55%	5.75%
December		5.45%	5.58%	5.77%
4th Qtr Average		5.39%	5.51%	5.71%
2024 Average		5.42%	5.54%	5.76%
Industrials	Aaa	Aa	A	Baa
October	4.95%	5.05%	5.24%	5.65%
November	5.14%	5.23%	5.43%	5.80%
December	5.20%	5.28%	5.47%	5.83%
4th Qtr Average	5.10%	5.19%	5.38%	5.76%
2024 Average	5.04%	5.12%	5.32%	5.74%

Debt Yield Rate	5.85%
Cost of Secured Debt (Operating Lease) Rate	5.25%

Aa3	AA-	6
A1	A+	7
A2	A	8
A3	A-	9
Baa1	BBB+	10
Baa2	BBB	11
Baa3	BBB-	12
Ba1	BB+	13
Ba2	BB	14
Ba3	BB-	15
B1	B+	16
B2	B	17
B3	B-	18
Caa1	CCC+	19
Caa2	CCC	20

Wireless Bond Analysis

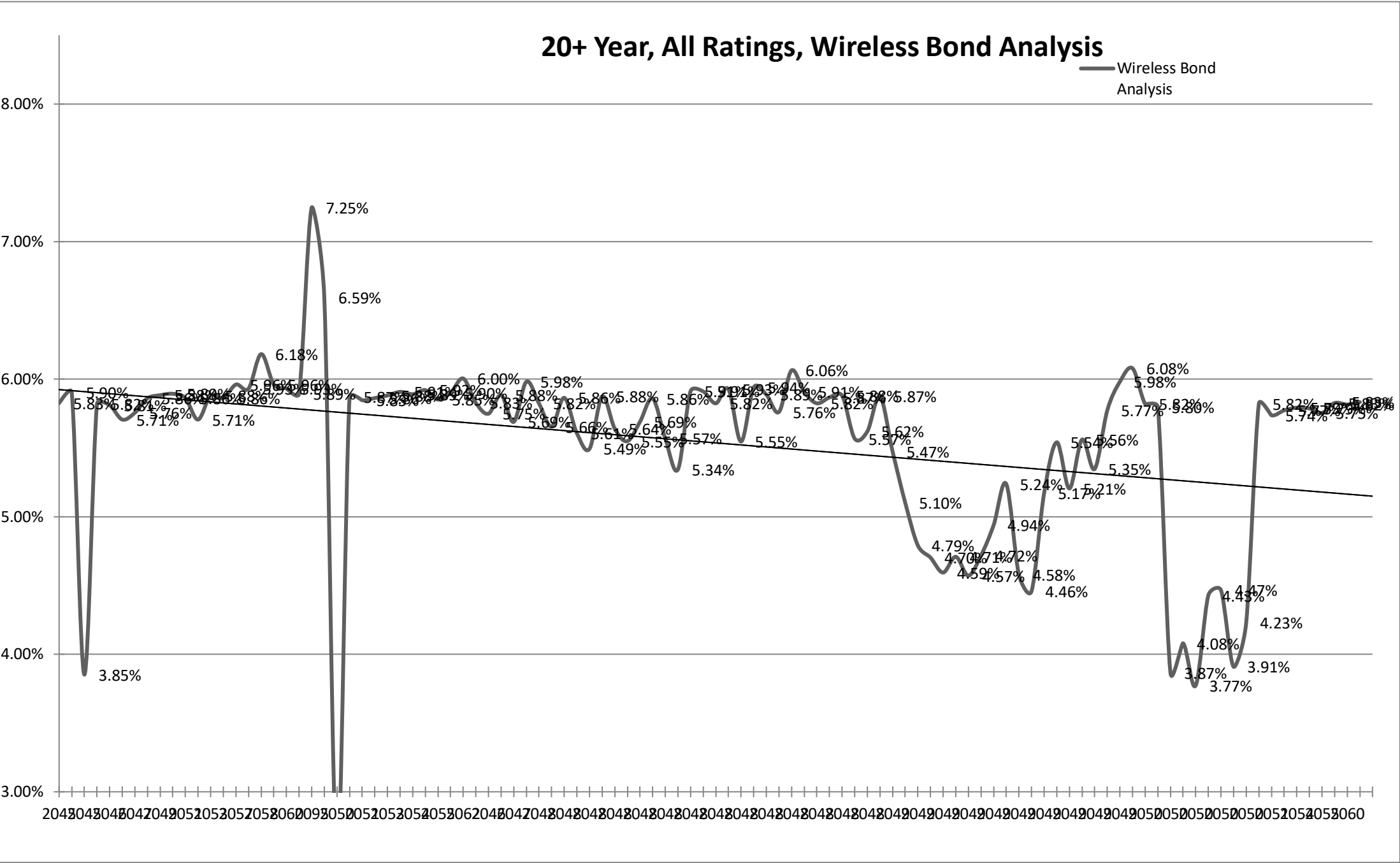
Company	type	Call	coupon	maturity	Price	Issued / Book	current yield	YTM	Weighted Average	S&P Rating	Mkt Val	Mkt : Boc ed Rate	Embedd	Debt Service	WAYTM	WAYTM	inra YTM
Bell South Telecom	CORP	N	7.000	2025	101.14	300,000,000	6.92%	4.64%	0.004922%	BBB	\$ 303,420,000	101.14%		21,000,000	0.00004922	0.0135%	5.4
AT&T Inc	CORP	N	7.000	2025	101.96	46,990,000	6.87%	2.99%	0.000497%	BBB	\$ 47,911,004	101.96%		3,289,300	0.00000497	0.0014%	4.29
AT&T Inc	CORP	Y	2.950	2026	97.38	707,258,000	3.029%	4.80%	0.012006%	BBB	\$ 688,727,840	97.38%		20,864,111	0.00012006	0.0330%	4.73
AT&T Inc	CORP	Y	1.700	2026	96.50	3,000,000,000	1.762%	4.15%	0.044063%	BBB	\$ 2,895,000,000	96.50%		51,000,000	0.00044063	0.1211%	4.66
AT&T Inc	CORP	Y	4.125	2026	102.37	1,750,000,000	4.030%	2.50%	0.015439%	BBB	\$ 1,791,475,000	102.37%		72,187,500	0.00015439	0.0424%	3.4
AT&T Inc	CORP	N	7.125	2026	103.07	236,120,000	6.913%	4.95%	0.004133%	BBB	\$ 243,368,884	103.07%		16,823,550	0.00004133	0.0114%	4.47
AT&T Inc	CORP	Y	3.875	2026	99.17	541,141,000	3.907%	4.46%	0.008530%	BBB	\$ 536,649,530	99.17%		20,969,214	0.00008530	0.0234%	4.7
AT&T Inc	CORP	N	7.300	2026	103.62	21,270,000	7.04%	4.74%	0.000357%	BBB	\$ 22,039,974	103.62%		1,552,710	0.00000357	0.0010%	5.06
AT&T Inc	CORP	Y	2.300	2027	94.37	2,500,000,000	2.437%	4.74%	0.041899%	BBB	\$ 2,359,250,000	94.37%		57,500,000	0.00041899	0.1152%	4.79
AT&T Inc	CORP	Y	3.800	2027	98.08	1,329,194,000	3.874%	4.63%	0.021760%	BBB	\$ 1,303,673,475	98.08%		50,509,372	0.00021760	0.0598%	4.76
AT&T Inc	CORP	Y	4.250	2027	99.02	2,000,000,000	4.292%	4.67%	0.033048%	BBB	\$ 1,980,400,000	99.02%		85,000,000	0.00033048	0.0908%	4.72
AT&T Inc	CORP	Y	2.300	2027	94.37	2,500,000,000	2.44%	4.74%	0.041899%	BBB	\$ 2,359,250,000	94.37%		57,500,000	0.00041899	0.1152%	4.79
AT&T Inc	CORP	Y	1.650	2028	90.94	2,250,000,000	1.814%	4.51%	0.035838%	BBB	\$ 2,046,150,000	90.94%		37,125,000	0.00035838	0.0985%	4.85
AT&T Inc	CORP	Y	4.100	2028	98.03	1,707,876,000	4.182%	4.72%	0.028520%	BBB	\$ 1,674,230,843	98.03%		70,022,916	0.00028520	0.0784%	4.78
Bell South Telecom	CORP	N	6.375	2028	102.20	500,000,000	6.24%	5.66%	0.010012%	BBB	\$ 511,000,000	102.20%		31,875,000	0.00010012	0.0275%	5.65
AT&T Inc	CORP	N	6.950	2028	105.50	43,801,000	6.59%	5.19%	0.000804%	BBB	\$ 46,210,055	105.50%		3,044,170	0.00000804	0.0022%	4.97
AT&T Inc	CORP	N	6.550	2028	104.52	114,586,000	6.27%	5.11%	0.002069%	BBB	\$ 119,765,287	104.52%		7,505,383	0.00002069	0.0057%	4.93
AT&T Inc	CORP	N	6.375	2028	103.08	95,103,000	6.18%	5.39%	0.001811%	BBB	\$ 98,032,172	103.08%		6,062,816	0.00001811	0.0050%	5.37
AT&T Corp	CORP	N	6.625	2029	105.11	180,874,000	6.303%	5.32%	0.003401%	BBB	\$ 190,116,661	105.11%		11,982,903	0.00003401	0.0093%	5.29
AT&T Corp	CORP	Y	4.350	2029	97.66	3,000,000,000	4.454%	4.94%	0.052417%	BBB	\$ 2,929,800,000	97.66%		130,500,000	0.00052417	0.1441%	4.97
AT&T Corp	CORP	N	6.500	2029	105.50	108,373,000	6.161%	5.10%	0.001954%	BBB	\$ 114,333,515	105.50%		7,044,245	0.00001954	0.0054%	5.03
AT&T Inc	CORP	N	6.500	2029	100.86	6,570,000	6.44%	6.27%	0.000146%	BBB	\$ 6,626,502	100.86%		427,050	0.00000146	0.0004%	6.31
AT&T Corp	CORP	Y	4.300	2030	96.71	3,144,026,000	4.446%	5.00%	0.055559%	BBB	\$ 3,040,587,545	96.71%		135,193,118	0.00055559	0.1527%	5.03
AT&T Corp	CORP	N	7.875	2030	115.56	169,311,000	6.815%	4.61%	0.002758%	BBB	\$ 195,655,792	115.56%		13,333,241	0.00002758	0.0076%	4.46
AT&T Corp	CORP	Y	2.750	2031	87.00	3,000,000,000	3.161%	5.15%	0.054662%	BBB	\$ 2,610,000,000	87.00%		82,500,000	0.00054662	0.1503%	5.15
AT&T Corp	CORP	N	6.875	2031	107.42	108,045,000	6.400%	5.49%	0.002096%	BBB	\$ 116,061,939	107.42%		7,428,094	0.00002096	0.0058%	5.46
AT&T Corp	CORP	N	7.125	2031	109.97	218,775,000	6.479%	5.27%	0.004078%	BBB	\$ 240,586,868	109.97%		15,587,719	0.00004078	0.0112%	5.38
AT&T Corp	CORP	N	7.625	2031	117.19	122,977,000	6.507%	4.51%	0.001963%	BBB	\$ 144,116,746	117.19%		9,376,996	0.00001963	0.0054%	4.48
AT&T Corp	CORP	N	8.750	2031	118.36	59,433,000	7.393%	5.33%	0.001121%	BBB	\$ 70,344,899	118.36%		5,200,388	0.00001121	0.0031%	5.5
AT&T Wireless	CORP	N	8.750	2031	117.95	173,641,000	7.418%	5.40%	0.003316%	BBB	\$ 204,809,560	117.95%		15,193,588	0.00003316	0.0091%	5.29
Bell South Corp	CORP	N	6.875	2031	106.81	750,000,000	6.44%	5.60%	0.014838%	BBB	\$ 801,075,000	106.81%		51,562,500	0.00014838	0.0408%	5.65
AT&T Inc	CORP	N	8.750	2031	118.04	173,641,000	7.41%	5.39%	0.003307%	BBB	\$ 204,965,836	118.04%		15,193,588	0.00003307	0.0091%	5.52
AT&T Inc	CORP	N	7.700	2032	113.16	156,915,000	6.805%	5.51%	0.003057%	BBB	\$ 177,565,014	113.16%		12,082,455	0.00003057	0.0084%	5.49
AT&T Inc	CORP	Y	2.250	2032	82.70	2,500,000,000	2.721%	5.08%	0.044908%	BBB	\$ 2,067,500,000	82.70%		56,250,000	0.00044908	0.1235%	5.2
AT&T Inc	CORP	Y	2.550	2033	80.49	3,754,161,000	3.168%	5.48%	0.072763%	BBB	\$ 3,021,724,189	80.49%		95,731,106	0.00072763	0.2000%	5.32
AT&T Inc	CORP	N	6.450	2034	104.33	165,964,000	6.182%	5.84%	0.003428%	BBB	\$ 173,150,241	104.33%		10,704,678	0.00003428	0.0094%	5.84
AT&T Inc	CORP	Y	5.400	2034	100.57	2,750,000,000	5.369%	5.32%	0.051737%	BBB	\$ 2,765,675,000	100.57%		148,500,000	0.00051737	0.1422%	5.31
AT&T Inc	CORP	N	6.550	2034	107.51	143,801,000	6.092%	5.51%	0.002803%	BBB	\$ 154,600,455	107.51%		9,418,966	0.00002803	0.0077%	5.52
Bell South Corp	CORP	N	6.000	2034	100.71	700,000,000	5.96%	5.90%	0.014600%	BBB	\$ 704,970,000	100.71%		42,000,000	0.00014600	0.0401%	5.9
Bell South Corp	CORP	N	6.550	2034	104.47	700,000,000	6.27%	5.92%	0.014652%	BBB	\$ 731,290,000	104.47%		45,850,000	0.00014652	0.0403%	5.92
SBC Communications	CORP	N	6.150	2034	105.67	255,512,000	5.82%	5.37%	0.004853%	BBB	\$ 269,999,530	105.67%		15,713,988	0.00004853	0.0133%	5.39
SBC Communications	CORP	N	6.450	2034	104.39	165,964,000	6.18%	5.84%	0.003423%	BBB	\$ 173,249,820	104.39%		10,704,678	0.00003423	0.0094%	5.84
AT&T Inc	CORP	N	6.000	2034	102.00	70,701,000	5.88%	5.72%	0.001430%	BBB	\$ 72,115,020	102.00%		4,242,060	0.00001430	0.0039%	5.73
AT&T Inc	sr notes		4.500	2035	92.82	2,500,000,000	4.848%	5.41%	0.047850%	BBB	\$ 2,320,500,000	92.82%		112,500,000	0.00047850	0.1315%	5.41
AT&T Inc	CORP	N	6.800	2036	107.13	149,975,000	6.347%	5.93%	0.003142%	BBB	\$ 160,668,218	107.13%		10,198,300	0.00003142	0.0086%	5.92
AT&T Inc	CORP	N	6.500	2036	110.44	124,660,000	5.886%	5.27%	0.002321%	BBB	\$ 137,674,504	110.44%		8,102,900	0.00002321	0.0064%	5.3
AT&T Inc	CORP	Y	4.900	2037	94.23	682,961,000	5.200%	5.55%	0.013405%	BBB	\$ 643,554,150	94.23%		33,465,089	0.00013405	0.0368%	5.54
AT&T Inc	CORP	Y	5.250	2037	97.94	1,055,020,000	5.360%	5.48%	0.020445%	BBB	\$ 1,033,286,588	97.94%		55,388,550	0.00020445	0.0562%	5.48
AT&T Inc	CORP	N	6.500	2037	104.22	108,373,000	6.237%	6.01%	0.002303%	BBB	\$ 112,946,341	104.22%		7,044,245	0.00002303	0.0063%	6.01
AT&T Inc	CORP	N	6.300	2038	107.21	526,886,000	5.876%	5.53%	0.010296%	BBB	\$ 564,874,481	107.21%		33,193,818	0.00010296	0.0283%	5.51
AT&T Inc	CORP	N	6.400	2038	105.49	140,131,000	6.067%	5.80%	0.002874%	BBB	\$ 147,824,192	105.49%		8,968,384	0.00002874	0.0079%	5.8
AT&T Inc	CORP	N	5.950	2038	96.23	8,040,000	6.18%	6.37%	0.000181%	BBB	\$ 7,736,892	96.23%		478,380	0.00000181	0.0005%	6.37
AT&T Inc	Global Notes		4.850	2039	92.67	2,000,000,000	5.234%	5.60%	0.039604%	BBB	\$ 1,853,400,000	92.67%		97,000,000	0.00039604	0.1089%	5.6
AT&T Inc	CORP	N	6.550	2039	108.16	366,360,000											

AT&T Inc	CORP	N	6.100	2040	103.70	214,359,000	5.882%	5.73%	0.004345%	BBB	\$ 222,290,283	103.70%		13,075,899	0.00004345	0.0119%	5.73
AT&T Inc	CORP	N	6.200	2040	102.01	202,930,000	6.078%	6.00%	0.004302%	BBB	\$ 207,008,893	102.01%		12,581,660	0.00004302	0.0118%	5.99
AT&T Inc	CORP	N	6.350	2040	105.41	77,792,000	6.024%	5.81%	0.001598%	BBB	\$ 82,000,547	105.41%		4,939,792	0.00001598	0.0044%	5.8
AT&T Inc	CORP	Y	6.000	2040	104.63	400,455,000	5.734%	5.55%	0.007852%	BBB	\$ 418,996,067	104.63%		24,027,300	0.00007852	0.0216%	5.54
AT&T Inc	CORP	N	6.375	2041	104.90	307,077,000	6.077%	5.90%	0.006407%	BBB	\$ 322,123,773	104.90%		19,576,159	0.00006407	0.0176%	5.9
AT&T Inc	CORP	Y	3.500	2041	76.57	2,500,000,000	4.571%	5.73%	0.050671%	BBB	\$ 1,914,250,000	76.57%		87,500,000	0.00050671	0.1393%	5.71
AT&T Inc	CORP	N	5.375	2041	93.00	139,899,000	5.780%	6.06%	0.002996%	BBB	\$ 130,106,070	93.00%		7,519,571	0.00002996	0.0082%	6.04
AT&T Inc	CORP	N	5.550	2041	97.50	541,196,000	5.692%	5.79%	0.011076%	BBB	\$ 527,666,100	97.50%		30,036,378	0.00011076	0.0304%	5.78
AT&T Inc	CORP	N	6.250	2041	103.11	124,660,000	6.061%	5.95%	0.002622%	BBB	\$ 128,536,926	103.11%		7,791,250	0.00002622	0.0072%	5.94
AT&T Inc	CORP	N	4.900	2042	91.10	134,458,000	5.379%	5.72%	0.002718%	BBB	\$ 122,491,238	91.10%		6,588,442	0.00002718	0.0075%	5.71
AT&T Inc	CORP	N	5.150	2042	92.67	316,928,000	5.557%	5.83%	0.006531%	BBB	\$ 293,697,178	92.67%		16,321,792	0.00006531	0.0180%	5.83
AT&T Inc	CORP	Y	4.300	2042	85.24	1,295,794,000	5.045%	5.65%	0.025880%	BBB	\$ 1,104,534,806	85.24%		55,719,142	0.00025880	0.0711%	5.61
AT&T Inc	CORP	N	5.350	2043	91.55	170,912,000	5.844%	6.13%	0.003701%	BBB	\$ 156,469,936	91.55%		9,143,792	0.00003701	0.0102%	6.1
AT&T Inc	CORP	Y	3.100	2043	72.40	642,455,000	4.28%	5.52%	0.012533%	BBB	\$ 465,137,420	72.40%		19,916,105	0.00012533	0.0345%	5.53
AT&T Inc	CORP	Y	4.650	2044	85.39	470,656,000	5.45%	5.93%	0.009873%	BBB	\$ 401,893,158	85.39%		21,885,504	0.00009873	0.0271%	5.92
AT&T Inc	CORP	Y	4.800	2044	86.02	455,205,000	5.58%	6.04%	0.009718%	BBB	\$ 391,567,341	86.02%		21,849,840	0.00009718	0.0267%	6.03
AT&T Inc	CORP	Y	4.350	2045	82.60	1,115,240,000	5.27%	5.83%	0.022969%	BBB	\$ 921,188,240	82.60%		48,512,940	0.00022969	0.0631%	5.81
AT&T Inc	CORP	Y	4.850	2045	87.67	310,945,000	5.53%	5.90%	0.006488%	BBB	\$ 272,605,482	87.67%		15,080,833	0.00006488	0.0178%	5.89
AT&T Inc	CORP	N	5.850	2045	127.97	379,000	4.57%	3.85%	0.000005%	BBB	\$ 485,006	127.97%		22,172	0.00000005	0.0000%	4.02
AT&T Inc	CORP	Y	4.750	2046	87.07	3,500,000,000	5.46%	5.82%	0.072001%	BBB	\$ 3,047,450,000	87.07%		166,250,000	0.00072001	0.1979%	5.81
AT&T Inc	CORP	Y	5.150	2046	92.00	742,629,000	5.60%	5.81%	0.015256%	BBB	\$ 683,218,680	92.00%		38,245,394	0.00015256	0.0419%	5.79
AT&T Inc	CORP	Y	5.450	2047	96.80	530,518,000	5.63%	5.71%	0.010701%	BBB	\$ 513,541,424	96.80%		28,913,231	0.00010701	0.0294%	5.7
AT&T Inc	CORP	Y	5.650	2047	98.68	806,157,000	5.73%	5.76%	0.016404%	BBB	\$ 795,515,728	98.68%		45,547,871	0.00016404	0.0451%	5.75
AT&T Inc	CORP	Y	4.500	2048	82.87	1,732,691,000	5.43%	5.86%	0.035898%	BBB	\$ 1,435,881,032	82.87%		77,971,095	0.00035898	0.0987%	5.85
AT&T Inc	CORP	Y	4.550	2049	82.92	930,104,000	5.49%	5.88%	0.019345%	BBB	\$ 771,242,237	82.92%		42,319,732	0.00019345	0.0532%	5.88
AT&T Inc	CORP	Y	5.150	2050	90.31	587,785,000	5.70%	5.89%	0.012246%	BBB	\$ 530,828,634	90.31%		30,270,928	0.00012246	0.0337%	5.89
AT&T Inc	CORP	Y	3.650	2051	70.60	3,000,000,000	5.17%	5.86%	0.062172%	BBB	\$ 2,118,000,000	70.60%		109,500,000	0.00062172	0.1709%	5.84
AT&T Inc	CORP	Y	3.300	2052	67.00	968,594,000	4.93%	5.71%	0.019538%	BBB	\$ 648,957,980	67.00%		31,963,602	0.00019538	0.0537%	5.7
AT&T Inc	CORP	Y	3.500	2053	67.44	7,496,266,000	5.19%	5.88%	0.155887%	BBB	\$ 5,055,481,790	67.44%		262,369,310	0.00155887	0.4285%	5.85
AT&T Inc	CORP	Y	3.550	2055	67.51	7,495,129,000	5.26%	5.86%	0.155290%	BBB	\$ 5,059,961,588	67.51%		266,077,080	0.00155290	0.4269%	5.83
AT&T Inc	CORP	Y	3.800	2057	69.27	5,923,231,000	5.49%	5.96%	0.124815%	BBB	\$ 4,103,022,114	69.27%		225,082,778	0.00124815	0.3431%	5.93
AT&T Inc	CORP	Y	5.700	2057	96.70	325,476,000	5.89%	5.93%	0.006824%	BBB	\$ 314,735,292	96.70%		18,552,132	0.00006824	0.0188%	5.93
AT&T Inc	CORP	Y	5.300	2058	87.64	172,725,000	6.05%	6.18%	0.003775%	BBB	\$ 151,376,190	87.64%		9,154,425	0.00003775	0.0104%	6.17
AT&T Inc	CORP	Y	3.650	2059	66.49	6,495,911,000	5.49%	5.96%	0.136885%	BBB	\$ 4,319,131,224	66.49%		237,100,752	0.00136885	0.3763%	5.94
AT&T Inc	CORP	Y	3.850	2060	69.44	1,500,000,000	5.54%	5.93%	0.031455%	BBB	\$ 1,041,600,000	69.44%		57,750,000	0.00031455	0.0865%	5.92
AT&T Inc	CORP	Y	3.500	2061	64.40	646,670,000	5.43%	5.89%	0.013475%	BBB	\$ 416,455,480	64.40%		22,633,450	0.00013475	0.0370%	5.89
AT&T Inc	CORP	N	7.000	2095	96.62	45,534,000	7.24%	7.25%	0.001166%	BBB	\$ 43,994,951	96.62%		3,187,380	0.00001166	0.0032%	7.24
AT&T Inc	CORP	N	7.120	2097	107.90	85,856,000	6.60%	6.59%	0.002001%	BBB	\$ 92,638,624	107.90%		6,112,947	0.00002001	0.0055%	6.59
	93 Book Val	9300		sum	#####	102,905,595,000	Percent of bc	96.49%	1.97643%		\$ 87,406,668,726	84.94%	3.97%	\$ 4,089,857,745		5.4331%	
Sprint Corp	CORP	Y	7.625	2025	99.98	1,500,000,000	7.63%	7.67%	0.04%	NR	\$ 1,499,700,000	99.98%		114,375,000	0.00040656	0.1481%	7.57
T-Mobile	CORP	Y	5.125	2025	101.28	500,000,000	5.06%	5.13%	0.01%	BBB	\$ 506,400,000	101.28%		25,625,000	0.00009059	0.0330%	3.64
T-Mobile	CORP	Y	3.500	2025	99.60	3,000,000,000	3.51%	4.33%	0.05%	BBB	\$ 2,988,000,000	99.60%		105,000,000	0.00045876	0.1671%	4.89
T-Mobile	CORP	Y	2.250	2026	97.27	1,789,996,000	2.31%	4.17%	0.03%	BBB	\$ 1,741,129,109	97.27%		40,274,910	0.00026355	0.0960%	4.77
T-Mobile	CORP	Y	4.500	2026	102.29	1,000,000,000	4.40%	2.92%	0.01%	BBB	\$ 1,022,900,000	102.29%		45,000,000	0.00010314	0.0376%	1.85
T-Mobile	CORP	Y	6.500	2026	103.18	2,000,000,000	6.30%	4.27%	0.03%	BBB	\$ 2,063,600,000	103.18%		130,000,000	0.00030165	0.1099%	5.074
T-Mobile	CORP	Y	2.625	2026	97.47	1,200,000,000	2.69%	4.40%	0.02%	BBB	\$ 1,169,640,000	97.47%		31,500,000	0.00018686	0.0681%	4.67
T-Mobile	CORP	Y	1.500	2026	96.45	1,000,000,000	1.56%	3.98%	0.01%	BBB	\$ 964,500,000	96.45%		15,000,000	0.00014087	0.0513%	4.78
T-Mobile	CORP	Y	5.375	2027	100.79	500,000,000	5.33%	5.03%	0.01%	BBB	\$ 503,950,000	100.79%		26,875,000	0.00008892	0.0324%	2.56
T-Mobile	CORP	Y	3.750	2027	97.72	4,000,000,000	3.84%	4.74%	0.07%	BBB	\$ 3,908,800,000	97.72%		150,000,000	0.00067003	0.2441%	4.81
Sprint Capital Corp.	CORP	N	6.875	2028	106.26	2,500,000,000	6.47%	4.89%	0.04%	NR	\$ 2,656,500,000	106.26%		171,875,000	0.00043179	0.1573%	5.07
T-Mobile	CORP	Y	2.050	2028	91.88	1,749,200,000	2.23%	4.62%	0.03%	BBB	\$ 1,607,164,960	91.88%		35,858,600	0.00028540	0.1040%	4.88
T-Mobile	CORP	Y	4.750	2028	99.38	1,500,000,000	4.78%	4.95%	0.03%	BBB	\$ 1,490,700,000	99.38%		71,250,000	0.00026233	0.0956%	4.96
T-Mobile	CORP	Y	4.950	2028	100.01	1,000,000,000	4.95%	4.95%	0.02%	BBB	\$ 1,000,100,000	100.01%		49,500,000	0.00017487	0.0637%	4.94
T-Mobile	CORP	Y	4.800	2028	99.93	900,000,000	4.80%	4.82%	0.02%	BBB	\$ 899,370,000	99.93%		43,200,000	0.00015342	0.0559%	4.82
T-Mobile	SR Notes		2.625	2029	90.98	1,000,000,000	2.89%	4.91%	0.02%	BBB	\$ 909,800,000	90.98%		26,250,000	0.00017348	0.0632%	5.07
T-Mobile	CORP	Y	4.850	2029	99.76	1,000,000,000	4.86%	4.91%	0.02%	BBB	\$ 997,600,000	99.76%		48,500,000	0.00017360	0.0632%	4.91
T-Mobile	SR Notes		2.400	2029	90.03	500,000,000	2.67%	4.92%	0.01%	BBB	\$ 450,150,000	90.03%		12,000,000	0.00008703	0.0317%	5.06
T-Mobile	CORP	Y	3.375	2029	93.38	2,346,002,000	3.61%	5.06%	0.04%	BBB	\$ 2,190,696,668	93.38%		79,177,568	0.00041935	0.1528%	5.11

T-Mobile	CORP	Y	4.200	2029	96.76	700,000,000	4.34%	5.02%	0.01%	BBB	\$ 677,320,000	96.76%		29,400,000	0.00012428	0.0453%	4.97
T-Mobile	CORP	Y	3.875	2030	94.13	7,000,000,000	4.12%	5.13%	0.13%	BBB	\$ 6,589,100,000	94.13%		271,250,000	0.00126863	0.4622%	5.15
T-Mobile	CORP	Y	3.500	2031	90.53	2,449,844,000	3.87%	5.26%	0.05%	BBB	\$ 2,217,843,773	90.53%		85,744,540	0.00045533	0.1659%	5.28
T-Mobile	CORP	Y	2.550	2031	86.35	2,500,000,000	2.95%	5.07%	0.04%	BBB	\$ 2,158,750,000	86.35%		63,750,000	0.00044781	0.1631%	5.17
T-Mobile	CORP	Y	2.250	2031	83.15	1,000,000,000	2.71%	5.39%	0.02%	BBB	\$ 831,500,000	83.15%		22,500,000	0.00019059	0.0694%	5.19
T-Mobile	CORP	Y	2.875	2031	87.99	1,000,000,000	3.27%	5.09%	0.02%	BBB	\$ 879,900,000	87.99%		28,750,000	0.00017999	0.0656%	5.19
Sprint Capital Corp.	CORP	N	8.750	2032	119.53	3,000,000,000	7.32%	5.50%	0.06%	NR	\$ 3,585,900,000	119.53%		262,500,000	0.00058348	0.2126%	5.43
T-Mobile			2.700	2032	84.60	1,000,000,000	3.19%	5.24%	0.02%	BBB	\$ 846,000,000	84.60%		27,000,000	0.00018507	0.0674%	5.29
T-Mobile	CORP	Y	5.050	2033	98.03	2,600,000,000	5.15%	5.34%	0.05%	BBB	\$ 2,548,780,000	98.03%		131,300,000	0.00049121	0.1790%	5.34
T-Mobile	CORP	Y	5.200	2033	99.04	1,250,000,000	5.25%	5.34%	0.02%	BBB	\$ 1,238,000,000	99.04%		65,000,000	0.00023612	0.0860%	5.34
T-Mobile	CORP	Y	5.750	2034	102.63	1,000,000,000	5.60%	5.39%	0.02%	BBB	\$ 1,026,300,000	102.63%		57,500,000	0.00019050	0.0694%	5.37
T-Mobile	CORP	Y	5.150	2034	98.16	1,250,000,000	5.25%	5.40%	0.02%	BBB	\$ 1,227,000,000	98.16%		64,375,000	0.00023873	0.0870%	5.4
T-Mobile	CORP	Y	4.700	2035	94.59	900,000,000	4.97%	5.39%	0.02%	BBB	\$ 851,310,000	94.59%		42,300,000	0.00017142	0.0625%	5.4
T-Mobile	CORP	Y	4.375	2040	86.75	1,873,720,000	5.04%	5.68%	0.04%	BBB	\$ 1,625,452,100	86.75%		81,975,250	0.00037646	0.1371%	5.68
T-Mobile	CORP	Y	3.000	2041	71.36	2,500,000,000	4.20%	5.73%	0.05%	BBB	\$ 1,784,000,000	71.36%		75,000,000	0.00050634	0.1845%	5.74
T-Mobile	CORP	Y	2.050	2050	91.88	1,750,000,000	2.23%	2.48%	0.02%	BBB	\$ 1,607,900,000	91.88%		35,875,000	0.00015365	0.0560%	4.88
T-Mobile	CORP	Y	4.500	2050	82.11	3,000,000,000	5.48%	5.87%	0.06%	BBB	\$ 2,463,300,000	82.11%		135,000,000	0.00062252	0.2268%	5.86
T-Mobile	CORP	Y	3.300	2051	66.11	3,000,000,000	4.99%	5.85%	0.06%	BBB	\$ 1,983,300,000	66.11%		99,000,000	0.00062000	0.2259%	5.840
T-Mobile	CORP	Y	3.400	2052	66.76	2,793,148,000	5.09%	5.86%	0.06%	BBB	\$ 1,864,705,605	66.76%		94,967,032	0.00057889	0.2109%	5.820
T-Mobile	CORP	Y	5.650	2053	96.84	1,750,000,000	5.83%	5.88%	0.04%	BBB	\$ 1,694,700,000	96.84%		98,875,000	0.00036383	0.1325%	5.880
T-Mobile	CORP	Y	5.750	2054	97.82	1,250,000,000	5.88%	5.91%	0.03%	BBB	\$ 1,222,750,000	97.82%		71,875,000	0.00026105	0.0951%	5.900
T-Mobile	CORP	Y	6.000	2054	101.51	1,000,000,000	5.91%	5.89%	0.02%	BBB	\$ 1,015,100,000	101.51%		60,000,000	0.00020824	0.0759%	5.890
T-Mobile	CORP	Y	5.500	2055	94.13	750,000,000	5.84%	5.92%	0.02%	BBB	\$ 705,975,000	94.13%		41,250,000	0.00015696	0.0572%	5.910
T-Mobile	CORP	Y	5.250	2055	91.53	900,000,000	5.74%	5.85%	0.02%	BBB	\$ 823,770,000	91.53%		47,250,000	0.00018618	0.0678%	5.84
T-Mobile	CORP	Y	3.600	2060	66.10	1,698,018,000	5.45%	5.90%	0.04%	BBB	\$ 1,122,389,898	66.10%		61,128,648	0.00035421	0.1290%	5.870
T-Mobile	CORP	Y	5.800	2062	96.97	750,000,000	5.98%	6.00%	0.02%	BBB	\$ 727,275,000	96.97%		43,500,000	0.00015921	0.0580%	6.000
45		4500		sum	4213.00	77,649,928,000	Percent of bc	93.62%	1.42%		\$ 71,889,022,113	92.58%	3.96%	\$ 3,073,326,548		5.1669%	
US Cellular	sr nts	Z100	6.700	2033	105.85	444,000,000	6.33%	6.70%	0.01%	BB	\$ 469,974,000	105.85%		29,748,000	0.00010516	6.7000%	5.85
1		100		sum	105.85	444,000,000	Percent of bc	105.85%	2.75%		469,974,000	1.06	6.70%	29,748,000		0.07	
Verizon Communications	CORP	Y	0.850	2025	96.83	2,000,000,000	0.88%	7.55%	0.05%	BBB+	\$ 1,936,600,000	96.83%		17,000,000	0.00053355	0.1481%	4.54
Verizon Communications	CORP	Y	1.450	2025	96.32	2,750,000,000	1.51%	9.32%	0.09%	BBB+	\$ 2,648,800,000	96.32%		39,875,000	0.00090609	0.2516%	4.59
Verizon Communications	CORP	Y	3.376	2025	99.76	2,480,400,000	3.38%	3.87%	0.03%	BBB+	\$ 2,474,447,040	99.76%		83,738,304	0.00033932	0.0942%	5.32
Verizon Communications	CORP	Y	3.650	2025	97.16	2,229,000	3.76%	9.74%	0.00%	BBB+	\$ 2,165,696	97.16%		81,359	0.00000077	0.0002%	4.16
Verizon Communications	CORP	Y	1.450	2026	96.32	2,750,000,000	1.51%	4.03%	0.04%	BBB+	\$ 2,648,800,000	96.32%		39,875,000	0.00039150	0.1087%	4.59
Verizon Communications	CORP	N	2.625	2026	96.78	2,250,000,000	2.71%	4.90%	0.04%	BBB+	\$ 2,177,550,000	96.78%		59,062,500	0.00039004	0.1083%	4.7
Verizon Communications	CORP	N	4.125	2027	98.75	3,250,000,000	4.18%	4.67%	0.05%	BBB+	\$ 3,209,375,000	98.75%		134,062,500	0.00053610	0.1489%	4.72
Verizon Communications	CORP	Y	3.000	2027	96.53	750,000,000	3.11%	4.50%	0.01%	BBB+	\$ 723,975,000	96.53%		22,500,000	0.00011927	0.0331%	4.65
Verizon Communications	CORP	Y	2.100	2028	91.90	3,000,000,000	2.29%	4.66%	0.05%	BBB+	\$ 2,757,000,000	91.90%		63,000,000	0.00049437	0.1373%	4.84
Verizon Communications	CORP	N	4.329	2028	98.14	3,680,728,000	4.41%	4.92%	0.06%	BBB+	\$ 3,612,266,459	98.14%		159,338,715	0.00064022	0.1778%	4.88
Verizon Communications	CORP	Y	4.050	2028	100.00	2,628,000	4.05%	4.05%	0.00%	BBB+	\$ 2,628,000	100.00%		106,434	0.00000038	0.0001%	3.97
Verizon Communications	CORP	Y	4.300	2028	100.00	7,053,000	4.30%	4.30%	0.00%	BBB+	\$ 7,053,000	100.00%		303,279	0.00000107	0.0003%	4.29
Verizon Communications	CORP	Y	4.100	2028	99.96	4,457,000	4.10%	4.11%	0.00%	BBB+	\$ 4,455,217	99.96%		182,737	0.00000065	0.0002%	4.1
Verizon Communications	CORP	Y	3.900	2028	96.85	1,011,000	4.03%	4.90%	0.00%	BBB+	\$ 979,154	96.85%		39,429	0.00000018	0.0000%	4.3
Verizon Communications	CORP	Y	3.550	2028	100.08	2,180,000	3.55%	3.53%	0.00%	BBB+	\$ 2,181,744	100.08%		77,390	0.00000027	0.0001%	3.53
Verizon Communications	CORP	Y	4.016	2029	96.28	3,960,082,000	4.17%	4.96%	0.07%	BBB+	\$ 3,812,766,950	96.28%		159,036,893	0.00069415	0.1927%	4.87
Verizon Communications	CORP	Y	3.875	2029	96.44	1,000,000,000	4.02%	4.77%	0.02%	BBB+	\$ 964,400,000	96.44%		38,750,000	0.00016872	0.0468%	4.84
Verizon Communications	CORP	Y	5.000	2029	100.00	1,405,000	5.00%	5.00%	0.00%	BBB+	\$ 1,405,000	100.00%		70,250	0.00000025	0.0001%	5
Verizon Communications	CORP	Y	4.800	2029	99.50	1,159,000	4.82%	4.93%	0.00%	BBB+	\$ 1,153,205	99.50%		55,632	0.00000020	0.0001%	4.91
Verizon Communications	CORP	Y	3.250	2029	96.35	1,000	3.37%	4.16%	0.00%	BBB+	\$ 964	96.35%		33	0.00000000	0.0000%	3.73
Verizon Communications	CORP	N	6.800	2029	106.78	45,148,000	6.37%	5.08%	0.00%	BBB+	\$ 48,209,034	106.78%		3,070,064	0.00000810	0.0022%	5.04
Verizon Communications	CORP	Y	1.680	2030	83.05	1,144,945,000	2.02%	5.31%	0.02%	BBB+	\$ 950,876,823	83.05%		19,235,076	0.00021511	0.0597%	5.07
Verizon Communications	CORP	Y	3.150	2030	91.58	1,500,000,000	3.44%	4.94%	0.03%	BBB+	\$ 1,373,700,000	91.58%		47,250,000	0.00026170	0.0727%	5
Verizon Communications	CORP	Y	1.500	2030	82.91	1,000,000,000	1.81%	5.15%	0.02%	BBB+	\$ 829,100,000	82.91%		15,000,000	0.00018193	0.0505%	4.97
Verizon Communications			7.750	2030	113.34	561,998,000	6.84%	4.92%	0.01%	BBB+	\$ 636,968,533	113.34%		43,554,845	0.00009780	0.0272%	5.1
Verizon Communications	CORP	Y	1.600	2030	78.08	500,000	2.05%	6.46%	0.00%	BBB+	\$ 390,400	78.08%		8,000	0.00000011	0.0000%	4.95
Verizon Communications	CORP	Y	1.650	2030	84.00	2,327,000	1.96%	5.05%	0.00%	BBB+	\$ 1,954,680	84.00%		38,396	0.00000042	0.0001%	4.76
Verizon Communications	CORP	Y	1.850	2030	84.18	566,000	2.20%	5.23%	0.00%	BBB+	\$ 476,459	84.18%		10,471	0.00000010	0.0000%	4.76

Verizon Communications	CORP	Y	2.050	2030	83.86	56,000	2.44%	5.53%	0.00%	BBB+	\$ 46,962	83.86%		1,148	0.00000001	0.0000%	5.59
Verizon Communications	CORP	Y	1.900	2030	83.63	874,000	2.27%	5.42%	0.00%	BBB+	\$ 730,926	83.63%		16,606	0.00000017	0.0000%	5.3
Verizon Communications	CORP	Y	3.150	2030	91.58	1,500,000,000	3.44%	4.94%	0.03%	BBB+	\$ 1,373,700,000	91.58%		47,250,000	0.00026170	0.0727%	5
Verizon Communications	CORP	Y	1.750	2031	82.50	2,250,000,000	2.12%	4.97%	0.04%	BBB+	\$ 1,856,250,000	82.50%		39,375,000	0.00039498	0.1086%	5.15
Verizon Communications	CORP	Y	2.550	2031	86.29	2,593,551,000	2.96%	5.08%	0.05%	BBB+	\$ 2,237,975,158	86.29%		66,135,551	0.00046567	0.1280%	5.15
Verizon Communications	CORP	Y	2.650	2031	88.85	800,000	2.98%	4.68%	0.00%	BBB+	\$ 710,800	88.85%		21,200	0.00000013	0.0000%	4.54
Verizon Communications	CORP	N	7.375	2032	110.80	93,784,000	6.656%	5.57%	0.00%	BBB+	\$ 103,912,672	110.80%		6,916,570	0.00001848	0.0051%	5.54
Verizon Communications	CORP	N	7.875	2032	113.50	122,499,000	6.938%	5.62%	0.00%	BBB+	\$ 139,036,365	113.50%		9,646,796	0.00002434	0.0067%	5.64
Verizon Communications	CORP	N	7.750	2032	111.88	95,066,000	6.93%	5.76%	0.00%	BBB+	\$ 106,359,841	111.88%		7,367,615	0.00001934	0.0054%	5.77
Verizon Communications	CORP	Y	2.355	2032	82.87	4,626,005,000	2.84%	5.17%	0.08%	BBB+	\$ 3,833,570,344	82.87%		108,942,418	0.00084512	0.2347%	5.23
Verizon Communications	CORP	Y	5.050	2033	100.36	1,000,000,000	5.03%	5.00%	0.02%	BBB+	\$ 1,003,600,000	100.36%		50,500,000	0.00017664	0.0490%	4.99
Verizon Communications	CORP	N	4.500	2033	94.30	3,000,000,000	4.77%	5.35%	0.06%	BBB+	\$ 2,829,000,000	94.30%		135,000,000	0.00056760	0.1576%	5.33
Verizon Communications	CORP	N	5.125	2033	97.70	136,217,000	5.246%	5.47%	0.00%	BBB+	\$ 133,084,009	97.70%		6,981,121	0.00002634	0.0072%	5.46
Verizon Communications	CORP	N	6.400	2033	107.89	250,259,000	5.93%	5.23%	0.00%	BBB+	\$ 270,004,435	107.89%		16,016,576	0.00004624	0.0128%	5.25
Verizon Communications	CORP	Y	2.200	2033	78.30	4,129,000	2.81%	5.46%	0.00%	BBB+	\$ 3,233,007	78.30%		90,838	0.00000080	0.0002%	5.37
Verizon Communications	CORP	Y	4.400	2034	92.80	2,396,389,000	4.74%	5.39%	0.05%	BBB+	\$ 2,223,848,992	92.80%		105,441,116	0.00045645	0.1267%	5.35
Verizon Communications	CORP	Y	5.050	2034	97.84	151,301,000	5.16%	5.35%	0.00%	BBB+	\$ 148,032,898	97.84%		7,640,701	0.00002859	0.0079%	5.34
Verizon Communications	CORP	Y	5.150	2034	94.40	2,149,000	5.46%	5.94%	0.00%	BBB+	\$ 2,028,656	94.40%		110,674	0.00000045	0.0001%	5.35
Verizon Communications	CORP	Y	5.850	2035	103.36	303,668,000	5.66%	5.42%	0.01%	BBB+	\$ 313,871,245	103.36%		17,764,578	0.00005820	0.0162%	5.43
Verizon Communications	CORP	N	4.272	2036	89.99	1,289,884,000	4.75%	5.47%	0.02%	BBB+	\$ 1,160,766,612	89.99%		55,103,844	0.00024930	0.0692%	5.49
Verizon Communications	CORP	N	5.250	2037	100.12	1,349,758,000	5.24%	5.24%	0.02%	BBB+	\$ 1,351,377,710	100.12%		70,862,295	0.00024986	0.0694%	5.23
Verizon Communications	CORP	N	6.250	2037	105.03	274,853,000	5.95%	5.68%	0.01%	BBB+	\$ 288,678,106	105.03%		17,178,313	0.00005516	0.0153%	5.67
Verizon Communications	CORP	N	6.400	2038	105.73	276,645,000	6.05%	5.78%	0.01%	BBB+	\$ 292,496,759	105.73%		17,705,280	0.00005650	0.0157%	5.77
Verizon Communications	CORP	N	6.900	2038	110.10	191,785,000	6.27%	5.80%	0.00%	BBB+	\$ 211,155,285	110.10%		13,233,165	0.00003933	0.0109%	5.79
Verizon Communications	CORP	N	4.812	2039	92.24	1,424,838,000	5.22%	5.61%	0.03%	BBB+	\$ 1,314,270,571	92.24%		68,563,205	0.00028247	0.0784%	5.61
Verizon Communications	CORP	N	7.350	2039	113.53	133,372,000	6.47%	5.93%	0.00%	BBB+	\$ 151,417,232	113.53%		9,802,842	0.00002797	0.0078%	5.92
Verizon Communications	CORP	N	8.950	2039	128.78	107,919,000	6.95%	5.94%	0.00%	BBB+	\$ 138,978,088	128.78%		9,658,751	0.00002264	0.0063%	5.93
Verizon Communications	CORP	Y	4.000	2039	82.05	5,579,000	4.88%	5.87%	0.00%	BBB+	\$ 4,577,570	82.05%		223,160	0.00000116	0.0003%	5.86
Verizon Communications	CORP	Y	4.000	2039	82.69	5,668,000	4.84%	5.80%	0.00%	BBB+	\$ 4,686,869	82.69%		226,720	0.00000116	0.0003%	5.78
Verizon Communications	CORP	Y	4.050	2039	82.59	2,237,000	4.90%	5.87%	0.00%	BBB+	\$ 1,847,538	82.59%		90,599	0.00000046	0.0001%	5.86
Verizon Communications	CORP	Y	4.250	2039	89.76	6,193,000	4.73%	5.28%	0.00%	BBB+	\$ 5,558,837	89.76%		263,203	0.00000116	0.0003%	5.28
Verizon Communications	CORP	Y	2.650	2040	68.44	3,000,000,000	3.87%	5.79%	0.06%	BBB+	\$ 2,053,200,000	68.44%		79,500,000	0.00061395	0.1705%	5.69
Verizon Communications	CORP	Y	2.850	2041	69.25	1,000,000,000	4.12%	5.79%	0.02%	BBB+	\$ 692,500,000	69.25%		28,500,000	0.00020482	0.0569%	5.74
Verizon Communications	CORP	Y	3.400	2041	75.79	3,750,000,000	4.49%	5.70%	0.08%	BBB+	\$ 2,842,125,000	75.79%		127,500,000	0.00075600	0.2099%	5.7
Verizon Communications	CORP	N	4.750	2041	89.89	614,071,000	5.28%	5.71%	0.01%	BBB+	\$ 551,988,422	89.89%		29,168,373	0.00012400	0.0344%	5.69
Verizon Communications	CORP	N	6.000	2041	101.13	1,000,000,000	5.93%	5.89%	0.02%	BBB+	\$ 1,011,300,000	101.13%		60,000,000	0.00020825	0.0578%	5.88
Verizon Communications	CORP	Y	3.850	2042	78.65	892,453,000	4.90%	5.83%	0.02%	BBB+	\$ 701,914,285	78.65%		34,359,441	0.00018388	0.0511%	5.78
Verizon Communications	CORP	N	6.550	2043	110.10	805,189,000	5.95%	5.66%	0.02%	BBB+	\$ 886,513,089	110.10%		52,739,880	0.00016098	0.0447%	5.66
Verizon Communications	CORP	N	4.125	2046	79.43	1,274,054,000	5.19%	5.83%	0.03%	BBB+	\$ 1,011,981,092	79.43%		52,554,728	0.00026246	0.0729%	5.8
Verizon Communications	CORP	N	4.862	2046	89.21	3,505,989,000	5.45%	5.75%	0.07%	BBB+	\$ 3,127,692,787	89.21%		170,461,185	0.00071252	0.1978%	5.73
Verizon Communications	CORP	Y	4.900	2047	87.89	207,017,000	5.58%	5.88%	0.00%	BBB	\$ 181,947,241	87.89%		10,143,833	0.00004306	0.0118%	5.87
Verizon Communications	CORP	N	5.500	2047	97.63	566,109,000	5.63%	5.69%	0.01%	BBB+	\$ 552,692,217	97.63%		31,135,995	0.00011386	0.0316%	5.68
Verizon Communications	CORP	Y	4.500	2047	81.93	27,184,000	5.49%	5.98%	0.00%	BBB+	\$ 22,271,851	81.93%		1,223,280	0.00000575	0.0016%	5.95
Verizon Communications	CORP	N	4.522	2048	83.56	5,000,000,000	5.41%	5.82%	0.10%	BBB+	\$ 4,178,000,000	83.56%		226,100,000	0.00102932	0.2858%	5.8
Verizon Communications	CORP	Y	4.900	2048	90.31	1,636,000	5.43%	5.66%	0.00%	BBB+	\$ 1,477,472	90.31%		80,164	0.00000033	0.0001%	5.64
Verizon Communications	CORP	Y	5.000	2048	89.12	6,595,000	5.61%	5.86%	0.00%	BBB+	\$ 5,877,464	89.12%		329,750	0.00000137	0.0004%	5.84
Verizon Communications	CORP	Y	4.900	2048	90.89	1,304,000	5.39%	5.61%	0.00%	BBB+	\$ 1,185,206	90.89%		63,896	0.00000026	0.0001%	5.59
Verizon Communications	CORP	Y	5.000	2048	93.57	6,096,000	5.34%	5.49%	0.00%	BBB+	\$ 5,704,027	93.57%		304,800	0.00000118	0.0003%	5.48
Verizon Communications	CORP	Y	5.000	2048	89.00	8,487,000	5.62%	5.88%	0.00%	BBB+	\$ 7,553,430	89.00%		424,350	0.00000176	0.0005%	5.85
Verizon Communications	CORP	Y	4.750	2048	88.57	2,774,000	5.36%	5.64%	0.00%	BBB+	\$ 2,456,932	88.57%		131,765	0.00000055	0.0002%	5.62
Verizon Communications	CORP	Y	4.700	2048	89.00	2,457,000	5.28%	5.55%	0.00%	BBB+	\$ 2,186,730	89.00%		115,479	0.00000048	0.0001%	5.53
Verizon Communications	CORP	Y	4.700	2048	87.33	3,081,000	5.38%	5.69%	0.00%	BBB+	\$ 2,690,637	87.33%		144,807	0.00000062	0.0002%	5.67
Verizon Communications	CORP	Y	4.850	2048	87.29	4,589,000	5.56%	5.86%	0.00%	BBB+	\$ 4,005,738	87.29%		222,567	0.00000095	0.0003%	5.84
Verizon Communications	CORP	Y	4.650	2048	88.12	2,808,000	5.28%	5.57%	0.00%	BBB+	\$ 2,474,410	88.12%		130,572	0.00000055	0.0002%	5.55
Verizon Communications	CORP	Y	4.800	2048	92.82	5,265,000	5.17%	5.34%	0.00%	BBB+	\$ 4,886,973	92.82%		252,720	0.00000099	0.0003%	5.33
Verizon Communications	CORP	Y	5.050	2048	89.20	37,628,000	5.66%	5.91%	0.00%	BBB+	\$ 33,564,176	89.20%		1,900,214	0.00000786	0.0022%	5.9
Verizon Communications	CORP	Y	4.900	2048	87.33	11,013,000	5.61%	5.91%	0.00%	BBB+	\$ 9,617,653	87.33%		539,637	0.00000230	0.0006%	5.9
Verizon Communications	CORP	Y	4.950	2048	88.96	9,709,000	5.56%	5.82%	0.00%	BBB+	\$ 8,637,126	88.96%		480,596	0.00000200	0.0006%	5.81
Verizon Communications	CORP	Y	5.000	2048	88.40	51,593,000	5.66%	5.93%	0.00%	BBB+	\$ 45,608,212	88.40%		2,579,650	0.00001081	0.0030%	5.92

Verizon Communications	CORP	Y	4.850	2048	90.98	4,688,000	5.33%	5.55%	0.00%	BBB+	\$	4,265,142	90.98%		227,368	0.00000092	0.0003%	5.54
Verizon Communications	CORP	Y	4.900	2048	87.01	9,694,000	5.63%	5.94%	0.00%	BBB+	\$	8,434,749	87.01%		475,006	0.00000204	0.0006%	5.93
Verizon Communications	CORP	Y	4.850	2048	86.97	7,212,000	5.58%	5.89%	0.00%	BBB+	\$	6,272,276	86.97%		349,782	0.00000150	0.0004%	5.88
Verizon Communications	CORP	Y	4.850	2048	88.42	4,533,000	5.49%	5.76%	0.00%	BBB+	\$	4,008,079	88.42%		219,851	0.00000092	0.0003%	5.75
Verizon Communications	CORP	Y	4.850	2048	85.00	16,621,000	5.71%	6.06%	0.00%	BBB+	\$	14,127,850	85.00%		806,119	0.00000356	0.0010%	6.05
Verizon Communications	CORP	Y	4.800	2048	86.13	8,660,000	5.57%	5.91%	0.00%	BBB+	\$	7,458,858	86.13%		415,680	0.00000181	0.0005%	5.9
Verizon Communications	CORP	Y	4.750	2048	86.43	7,792,000	5.50%	5.82%	0.00%	BBB+	\$	6,734,626	86.43%		370,120	0.00000160	0.0004%	5.82
Verizon Communications	CORP	Y	4.750	2048	85.95	9,556,000	5.53%	5.87%	0.00%	BBB+	\$	8,213,382	85.95%		453,910	0.00000198	0.0006%	5.86
Verizon Communications	CORP	Y	4.750	2048	85.80	13,618,000	5.54%	5.88%	0.00%	BBB+	\$	11,684,244	85.80%		646,855	0.00000283	0.0008%	5.87
Verizon Communications	CORP	Y	4.550	2048	86.84	4,836,000	5.24%	5.57%	0.00%	BBB+	\$	4,199,582	86.84%		220,038	0.00000095	0.0003%	5.56
Verizon Communications	CORP	Y	4.450	2048	84.94	5,980,000	5.24%	5.62%	0.00%	BBB+	\$	5,079,412	84.94%		266,110	0.00000119	0.0003%	5.62
Verizon Communications	CORP	Y	4.550	2048	83.35	15,072,000	5.46%	5.87%	0.00%	BBB+	\$	12,562,512	83.35%		685,776	0.00000313	0.0009%	5.87
Verizon Communications	CORP	N	5.012	2049	93.85	723,998,000	5.34%	5.47%	0.01%	BBB+	\$	679,472,123	93.85%		36,286,780	0.00014009	0.0389%	5.47
Verizon Communications	CORP	Y	3.400	2049	76.50	2,635,000	4.44%	5.10%	0.00%	BBB+	\$	2,015,775	76.50%		89,590	0.00000048	0.0001%	5.06
Verizon Communications	CORP	Y	3.450	2049	80.90	4,042,000	4.26%	4.79%	0.00%	BBB+	\$	3,269,978	80.90%		139,449	0.00000068	0.0002%	4.76
Verizon Communications	CORP	Y	3.450	2049	82.00	2,110,000	4.21%	4.70%	0.00%	BBB+	\$	1,730,200	82.00%		72,795	0.00000035	0.0001%	4.67
Verizon Communications	CORP	Y	3.500	2049	84.11	4,034,000	4.16%	4.59%	0.00%	BBB+	\$	3,392,997	84.11%		141,190	0.00000066	0.0002%	4.57
Verizon Communications	CORP	Y	3.550	2049	83.36	3,740,000	4.26%	4.71%	0.00%	BBB+	\$	3,117,664	83.36%		132,770	0.00000062	0.0002%	4.68
Verizon Communications	CORP	Y	3.500	2049	84.40	3,130,000	4.15%	4.57%	0.00%	BBB+	\$	2,641,720	84.40%		109,550	0.00000051	0.0001%	4.54
Verizon Communications	CORP	Y	3.550	2049	83.25	8,658,000	4.26%	4.72%	0.00%	BBB+	\$	7,207,785	83.25%		307,359	0.00000144	0.0004%	4.7
Verizon Communications	CORP	Y	3.550	2049	80.51	7,893,000	4.41%	4.94%	0.00%	BBB+	\$	6,354,654	80.51%		280,202	0.00000138	0.0004%	4.91
Verizon Communications	CORP	Y	3.550	2049	77.00	6,658,000	4.61%	5.24%	0.00%	BBB+	\$	5,126,660	77.00%		236,359	0.00000123	0.0003%	5.21
Verizon Communications	CORP	Y	3.300	2049	81.39	1,737,000	4.05%	4.58%	0.00%	BBB+	\$	1,413,744	81.39%		57,321	0.00000028	0.0001%	4.56
Verizon Communications	CORP	Y	3.500	2049	85.89	5,293,000	4.07%	4.46%	0.00%	BBB+	\$	4,546,158	85.89%		185,255	0.00000083	0.0002%	4.44
Verizon Communications	CORP	Y	4.050	2049	84.61	4,665,000	4.79%	5.17%	0.00%	BBB+	\$	3,947,057	84.61%		188,933	0.00000085	0.0002%	5.16
Verizon Communications	CORP	Y	4.100	2049	80.93	3,560,000	5.07%	5.54%	0.00%	BBB+	\$	2,881,108	80.93%		145,960	0.00000070	0.0002%	5.53
Verizon Communications	CORP	Y	4.050	2049	84.21	2,711,000	4.81%	5.21%	0.00%	BBB+	\$	2,282,933	84.21%		109,796	0.00000050	0.0001%	5.19
Verizon Communications	CORP	Y	4.500	2049	85.99	3,561,000	5.23%	5.56%	0.00%	BBB+	\$	3,062,104	85.99%		160,245	0.00000070	0.0002%	5.55
Verizon Communications	CORP	Y	4.550	2049	89.25	1,564,000	5.10%	5.35%	0.00%	BBB+	\$	1,395,870	89.25%		71,162	0.00000030	0.0001%	5.34
Verizon Communications	CORP	Y	4.500	2049	83.52	3,167,000	5.39%	5.77%	0.00%	BBB+	\$	2,645,078	83.52%		142,515	0.00000065	0.0002%	5.77
Verizon Communications	CORP	Y	4.550	2049	81.83	5,536,000	5.56%	5.98%	0.00%	BBB+	\$	4,530,109	81.83%		251,888	0.00000117	0.0003%	5.98
Verizon Communications	CORP	Y	4.850	2049	84.55	1,848,000	5.74%	6.08%	0.00%	BBB+	\$	1,562,484	84.55%		89,628	0.00000040	0.0001%	6.07
Verizon Communications	CORP	Y	4.000	2050	76.12	1,250,000,000	5.25%	5.82%	0.03%	BBB+	\$	951,500,000	76.12%		50,000,000	0.00025717	0.0714%	5.81
Verizon Communications	CORP	Y	2.875	2050	61.58	2,750,000,000	4.67%	5.80%	0.06%	BBB+	\$	1,693,450,000	61.58%		79,062,500	0.00056348	0.1565%	5.74
Verizon Communications	CORP	Y	2.650	2050	80.50	1,263,000	3.29%	3.87%	0.00%	BBB	\$	1,016,715	80.50%		33,470	0.00000017	0.0000%	3.82
Verizon Communications	CORP	Y	2.750	2050	79.16	6,160,000	3.47%	4.08%	0.00%	BBB+	\$	4,876,256	79.16%		169,400	0.00000089	0.0002%	4.05
Verizon Communications	CORP	Y	2.800	2050	84.25	3,573,000	3.32%	3.77%	0.00%	BBB+	\$	3,010,253	84.25%		100,044	0.00000048	0.0001%	3.76
Verizon Communications	CORP	Y	2.950	2050	77.68	1,828,000	3.80%	4.43%	0.00%	BBB+	\$	1,419,990	77.68%		53,926	0.00000029	0.0001%	4.42
Verizon Communications	CORP	Y	2.950	2050	77.19	1,565,000	3.82%	4.47%	0.00%	BBB+	\$	1,208,024	77.19%		46,168	0.00000025	0.0001%	4.45
Verizon Communications	CORP	Y	2.750	2050	81.50	468,000	3.37%	3.91%	0.00%	BBB+	\$	381,420	81.50%		12,870	0.00000006	0.0000%	3.9
Verizon Communications	CORP	Y	3.000	2050	81.03	3,001,000	3.70%	4.23%	0.00%	BBB+	\$	2,431,710	81.03%		90,030	0.00000045	0.0001%	4.23
Verizon Communications	CORP	Y	4.000	2050	76.12	1,250,000,000	5.25%	5.82%	0.03%	BBB+	\$	951,500,000	76.12%		50,000,000	0.00025717	0.0714%	5.81
Verizon Communications	CORP	Y	3.550	2051	70.57	4,500,000,000	5.03%	5.74%	0.09%	BBB+	\$	3,175,650,000	70.57%		159,750,000	0.00091264	0.2534%	5.73
Verizon Communications	CORP	Y	3.875	2052	74.15	1,000,000,000	5.23%	5.77%	0.02%	BBB+	\$	741,500,000	74.15%		38,750,000	0.00020407	0.0567%	5.77
Verizon Communications	CORP	N	5.012	2054	89.08	827,118,000	5.63%	5.79%	0.02%	BBB+	\$	736,796,714	89.08%		41,455,154	0.00016938	0.0470%	5.78
Verizon Communications	CORP	Y	5.500	2054	95.98	1,000,000,000	5.73%	5.79%	0.02%	BBB+	\$	959,800,000	95.98%		55,000,000	0.00020458	0.0568%	5.78
Verizon Communications	CORP	N	4.672	2055	84.60	851,790,000	5.52%	5.75%	0.02%	BBB+	\$	720,614,340	84.60%		39,795,629	0.00017328	0.0481%	5.75
Verizon Communications	CORP	Y	2.987	2056	59.45	4,486,872,000	5.02%	5.83%	0.09%	BBB+	\$	2,667,445,404	59.45%		134,022,867	0.00092419	0.2566%	5.79
Verizon Communications	CORP	Y	3.000	2060	58.09	2,000,000,000	5.16%	5.82%	0.04%	BBB+	\$	1,161,800,000	58.09%		60,000,000	0.00041119	0.1142%	5.78
Verizon Communications	CORP	Y	3.700	2061	68.05	3,500,000,000	5.44%	5.83%	0.07%	BBB+	\$	2,381,750,000	68.05%		129,500,000	0.00072169	0.2004%	5.82
137	13700			sum	#####	101,883,836,000	Percent of bc	89.03%	1.98%			87,278,325,752	85.66%	3.56%	3,626,717,283		5.49%	



12/31/2024

Wireless Bond Analysis

Company	type	Call	coupon	maturity	Price 12/16	Issued / Book	current yield	yield to ma	Weighted Aver	Rating	Mkt Val	Mkt : Book	Embedded Debt Service	WAYTM	WAYTM	Finra YTM	
AT&T Inc	CORP	Y	4.350	2045	82.60	1,115,240,000	5.27%	5.83%	0.022969%	BBB	\$ 921,188,240	82.60%		48,512,940	0.00022969	0.0631%	5.81
AT&T Inc	CORP	Y	4.850	2045	87.67	310,945,000	5.53%	5.90%	0.006488%	BBB	\$ 272,605,482	87.67%		15,080,833	0.00006488	0.0178%	5.89
AT&T Inc	CORP	N	5.850	2045	127.97	379,000	4.57%	3.85%	0.000005%	BBB	\$ 485,006	127.97%		22,172	0.00000005	0.0000%	4.02
AT&T Inc	CORP	Y	4.750	2046	87.07	3,500,000,000	5.46%	5.82%	0.072001%	BBB	\$ 3,047,450,000	87.07%		166,250,000	0.00072001	0.1979%	5.81
AT&T Inc	CORP	Y	5.150	2046	92.00	742,629,000	5.60%	5.81%	0.015256%	BBB	\$ 683,218,680	92.00%		38,245,394	0.00015256	0.0419%	5.79
AT&T Inc	CORP	Y	5.450	2047	96.80	530,518,000	5.63%	5.71%	0.010701%	BBB	\$ 513,541,424	96.80%		28,913,231	0.00010701	0.0294%	5.7
AT&T Inc	CORP	Y	5.650	2047	98.68	806,157,000	5.73%	5.76%	0.016404%	BBB	\$ 795,515,728	98.68%		45,547,871	0.00016404	0.0451%	5.75
AT&T Inc	CORP	Y	4.500	2048	82.87	1,732,691,000	5.43%	5.86%	0.035898%	BBB	\$ 1,435,881,032	82.87%		77,971,095	0.00035898	0.0987%	5.85
AT&T Inc	CORP	Y	4.550	2049	82.92	930,104,000	5.49%	5.88%	0.019345%	BBB	\$ 771,242,237	82.92%		42,319,732	0.00019345	0.0532%	5.88
AT&T Inc	CORP	Y	5.150	2050	90.31	587,785,000	5.70%	5.89%	0.012246%	BBB	\$ 530,828,634	90.31%		30,270,928	0.00012246	0.0337%	5.89
AT&T Inc	CORP	Y	3.650	2051	70.60	3,000,000,000	5.17%	5.86%	0.062172%	BBB	\$ 2,118,000,000	70.60%		109,500,000	0.00062172	0.1709%	5.84
AT&T Inc	CORP	Y	3.300	2052	67.00	968,594,000	4.93%	5.71%	0.019538%	BBB	\$ 648,957,980	67.00%		31,963,602	0.00019538	0.0537%	5.7
AT&T Inc	CORP	Y	3.500	2053	67.44	7,496,266,000	5.19%	5.88%	0.155887%	BBB	\$ 5,055,481,790	67.44%		262,369,310	0.00155887	0.4285%	5.85
AT&T Inc	CORP	Y	3.550	2055	67.51	7,495,129,000	5.26%	5.86%	0.155290%	BBB	\$ 5,059,961,588	67.51%		266,077,080	0.00155290	0.4269%	5.83
AT&T Inc	CORP	Y	3.800	2057	69.27	5,923,231,000	5.49%	5.96%	0.124815%	BBB	\$ 4,103,022,114	69.27%		225,082,778	0.00124815	0.3431%	5.93
AT&T Inc	CORP	Y	5.700	2057	96.70	325,476,000	5.89%	5.93%	0.006824%	BBB	\$ 314,735,292	96.70%		18,552,132	0.00006824	0.0188%	5.93
AT&T Inc	CORP	Y	5.300	2058	87.64	172,725,000	6.05%	6.18%	0.003775%	BBB	\$ 151,376,190	87.64%		9,154,425	0.00003775	0.0104%	6.17
AT&T Inc	CORP	Y	3.650	2059	66.49	6,495,911,000	5.49%	5.96%	0.136885%	BBB	\$ 4,319,131,224	66.49%		237,100,752	0.00136885	0.3763%	5.94
AT&T Inc	CORP	Y	3.850	2060	69.44	1,500,000,000	5.54%	5.93%	0.031455%	BBB	\$ 1,041,600,000	69.44%		57,750,000	0.00031455	0.0865%	5.92
AT&T Inc	CORP	Y	3.500	2061	64.40	646,670,000	5.43%	5.89%	0.013475%	BBB	\$ 416,455,480	64.40%		22,633,450	0.00013475	0.0370%	5.89
AT&T Inc	CORP	N	7.000	2095	96.62	45,534,000	7.24%	7.25%	0.001166%	BBB	\$ 43,994,951	96.62%		3,187,380	0.00001166	0.0032%	7.24
AT&T Inc	CORP	N	7.120	2097	107.90	85,856,000	6.60%	6.59%	0.002001%	BBB	\$ 92,638,624	107.90%		6,112,947	0.00002001	0.0055%	6.59
T-Mobile	CORP	Y	2.050	2050	91.88	1,750,000,000	2.23%	2.48%	0.02%	BBB	\$ 1,607,900,000	91.88%		35,875,000	0.00015365	0.0560%	4.88
T-Mobile	CORP	Y	4.500	2050	82.11	3,000,000,000	5.48%	5.87%	0.06%	BBB	\$ 2,463,300,000	82.11%		135,000,000	0.00062252	0.2268%	5.86
T-Mobile	CORP	Y	3.300	2051	66.11	3,000,000,000	4.99%	5.85%	0.06%	BBB	\$ 1,983,300,000	66.11%		99,000,000	0.00062000	0.2259%	5.840
T-Mobile	CORP	Y	3.400	2052	66.76	2,793,148,000	5.09%	5.86%	0.06%	BBB	\$ 1,864,705,605	66.76%		94,967,032	0.00057889	0.2109%	5.820
T-Mobile	CORP	Y	5.650	2053	96.84	1,750,000,000	5.83%	5.88%	0.04%	BBB	\$ 1,694,700,000	96.84%		98,875,000	0.00036383	0.1325%	5.880
T-Mobile	CORP	Y	5.750	2054	97.82	1,250,000,000	5.88%	5.91%	0.03%	BBB	\$ 1,222,750,000	97.82%		71,875,000	0.00026105	0.0951%	5.900
T-Mobile	CORP	Y	6.000	2054	101.51	1,000,000,000	5.91%	5.89%	0.02%	BBB	\$ 1,015,100,000	101.51%		60,000,000	0.00020824	0.0759%	5.890

T-Mobile	CORP	Y	5.500	2055	94.13	750,000,000	5.84%	5.92%	0.02%	BBB	\$ 705,975,000	94.13%		41,250,000	0.00015696	0.0572%	5.910
T-Mobile	CORP	Y	5.250	2055	91.53	900,000,000	5.74%	5.85%	0.02%	BBB	\$ 823,770,000	91.53%		47,250,000	0.00018618	0.0678%	5.84
T-Mobile	CORP	Y	3.600	2060	66.10	1,698,018,000	5.45%	5.90%	0.04%	BBB	\$ 1,122,389,898	66.10%		61,128,648	0.00035421	0.1290%	5.870
T-Mobile	CORP	Y	5.800	2062	96.97	750,000,000	5.98%	6.00%	0.02%	BBB	\$ 727,275,000	96.97%		43,500,000	0.00015921	0.0580%	6.000
Verizon Communications	CORP	N	4.125	2046	79.43	1,274,054,000	5.19%	5.83%	0.03%	BBB+	\$ 1,011,981,092	79.43%		52,554,728	0.00026246	0.0729%	5.8
Verizon Communications	CORP	N	4.862	2046	89.21	3,505,989,000	5.45%	5.75%	0.07%	BBB+	\$ 3,127,692,787	89.21%		170,461,185	0.00071252	0.1978%	5.73
Verizon Communications	CORP	Y	4.900	2047	87.89	207,017,000	5.58%	5.88%	0.00%	BBB	\$ 181,947,241	87.89%		10,143,833	0.00004306	0.0118%	5.87
Verizon Communications	CORP	N	5.500	2047	97.63	566,109,000	5.63%	5.69%	0.01%	BBB+	\$ 552,692,217	97.63%		31,135,995	0.00011386	0.0316%	5.68
Verizon Communications	CORP	Y	4.500	2047	81.93	27,184,000	5.49%	5.98%	0.00%	BBB+	\$ 22,271,851	81.93%		1,223,280	0.00000575	0.0016%	5.95
Verizon Communications	CORP	N	4.522	2048	83.56	5,000,000,000	5.41%	5.82%	0.10%	BBB+	\$ 4,178,000,000	83.56%		226,100,000	0.00102932	0.2858%	5.8
Verizon Communications	CORP	Y	4.900	2048	90.31	1,636,000	5.43%	5.66%	0.00%	BBB+	\$ 1,477,472	90.31%		80,164	0.00000033	0.0001%	5.64
Verizon Communications	CORP	Y	5.000	2048	89.12	6,595,000	5.61%	5.86%	0.00%	BBB+	\$ 5,877,464	89.12%		329,750	0.00000137	0.0004%	5.84
Verizon Communications	CORP	Y	4.900	2048	90.89	1,304,000	5.39%	5.61%	0.00%	BBB+	\$ 1,185,206	90.89%		63,896	0.00000026	0.0001%	5.59
Verizon Communications	CORP	Y	5.000	2048	93.57	6,096,000	5.34%	5.49%	0.00%	BBB+	\$ 5,704,027	93.57%		304,800	0.00000118	0.0003%	5.48
Verizon Communications	CORP	Y	5.000	2048	89.00	8,487,000	5.62%	5.88%	0.00%	BBB+	\$ 7,553,430	89.00%		424,350	0.00000176	0.0005%	5.85
Verizon Communications	CORP	Y	4.750	2048	88.57	2,774,000	5.36%	5.64%	0.00%	BBB+	\$ 2,456,932	88.57%		131,765	0.00000055	0.0002%	5.62
Verizon Communications	CORP	Y	4.700	2048	89.00	2,457,000	5.28%	5.55%	0.00%	BBB+	\$ 2,186,730	89.00%		115,479	0.00000048	0.0001%	5.53
Verizon Communications	CORP	Y	4.700	2048	87.33	3,081,000	5.38%	5.69%	0.00%	BBB+	\$ 2,690,637	87.33%		144,807	0.00000062	0.0002%	5.67
Verizon Communications	CORP	Y	4.850	2048	87.29	4,589,000	5.56%	5.86%	0.00%	BBB+	\$ 4,005,738	87.29%		222,567	0.00000095	0.0003%	5.84
Verizon Communications	CORP	Y	4.650	2048	88.12	2,808,000	5.28%	5.57%	0.00%	BBB+	\$ 2,474,410	88.12%		130,572	0.00000055	0.0002%	5.55
Verizon Communications	CORP	Y	4.800	2048	92.82	5,265,000	5.17%	5.34%	0.00%	BBB+	\$ 4,886,973	92.82%		252,720	0.00000099	0.0003%	5.33
Verizon Communications	CORP	Y	5.050	2048	89.20	37,628,000	5.66%	5.91%	0.00%	BBB+	\$ 33,564,176	89.20%		1,900,214	0.00000786	0.0022%	5.9
Verizon Communications	CORP	Y	4.900	2048	87.33	11,013,000	5.61%	5.91%	0.00%	BBB+	\$ 9,617,653	87.33%		539,637	0.00000230	0.0006%	5.9
Verizon Communications	CORP	Y	4.950	2048	88.96	9,709,000	5.56%	5.82%	0.00%	BBB+	\$ 8,637,126	88.96%		480,596	0.00000200	0.0006%	5.81
Verizon Communications	CORP	Y	5.000	2048	88.40	51,593,000	5.66%	5.93%	0.00%	BBB+	\$ 45,608,212	88.40%		2,579,650	0.00001081	0.0030%	5.92
Verizon Communications	CORP	Y	4.850	2048	90.98	4,688,000	5.33%	5.55%	0.00%	BBB+	\$ 4,265,142	90.98%		227,368	0.00000092	0.0003%	5.54
Verizon Communications	CORP	Y	4.900	2048	87.01	9,694,000	5.63%	5.94%	0.00%	BBB+	\$ 8,434,749	87.01%		475,006	0.00000204	0.0006%	5.93
Verizon Communications	CORP	Y	4.850	2048	86.97	7,212,000	5.58%	5.89%	0.00%	BBB+	\$ 6,272,276	86.97%		349,782	0.00000150	0.0004%	5.88
Verizon Communications	CORP	Y	4.850	2048	88.42	4,533,000	5.49%	5.76%	0.00%	BBB+	\$ 4,008,079	88.42%		219,851	0.00000092	0.0003%	5.75
Verizon Communications	CORP	Y	4.850	2048	85.00	16,621,000	5.71%	6.06%	0.00%	BBB+	\$ 14,127,850	85.00%		806,119	0.00000356	0.0010%	6.05
Verizon Communications	CORP	Y	4.800	2048	86.13	8,660,000	5.57%	5.91%	0.00%	BBB+	\$ 7,458,858	86.13%		415,680	0.00000181	0.0005%	5.9
Verizon Communications	CORP	Y	4.750	2048	86.43	7,792,000	5.50%	5.82%	0.00%	BBB+	\$ 6,734,626	86.43%		370,120	0.00000160	0.0004%	5.82
Verizon Communications	CORP	Y	4.750	2048	85.95	9,556,000	5.53%	5.87%	0.00%	BBB+	\$ 8,213,382	85.95%		453,910	0.00000198	0.0006%	5.86
Verizon Communications	CORP	Y	4.750	2048	85.80	13,618,000	5.54%	5.88%	0.00%	BBB+	\$ 11,684,244	85.80%		646,855	0.00000283	0.0008%	5.87
Verizon Communications	CORP	Y	4.550	2048	86.84	4,836,000	5.24%	5.57%	0.00%	BBB+	\$ 4,199,582	86.84%		220,038	0.00000095	0.0003%	5.56
Verizon Communications	CORP	Y	4.450	2048	84.94	5,980,000	5.24%	5.62%	0.00%	BBB+	\$ 5,079,412	84.94%		266,110	0.00000119	0.0003%	5.62
Verizon Communications	CORP	Y	4.550	2048	83.35	15,072,000	5.46%	5.87%	0.00%	BBB+	\$ 12,562,512	83.35%		685,776	0.00000313	0.0009%	5.87
Verizon Communications	CORP	N	5.012	2049	93.85	723,998,000	5.34%	5.47%	0.01%	BBB+	\$ 679,472,123	93.85%		36,286,780	0.00014009	0.0389%	5.47
Verizon Communications	CORP	Y	3.400	2049	76.50	2,635,000	4.44%	5.10%	0.00%	BBB+	\$ 2,015,775	76.50%		89,590	0.00000048	0.0001%	5.06
Verizon Communications	CORP	Y	3.450	2049	80.90	4,042,000	4.26%	4.79%	0.00%	BBB+	\$ 3,269,978	80.90%		139,449	0.00000068	0.0002%	4.76
Verizon Communications	CORP	Y	3.450	2049	82.00	2,110,000	4.21%	4.70%	0.00%	BBB+	\$ 1,730,200	82.00%		72,795	0.00000035	0.0001%	4.67
Verizon Communications	CORP	Y	3.500	2049	84.11	4,034,000	4.16%	4.59%	0.00%	BBB+	\$ 3,392,997	84.11%		141,190	0.00000066	0.0002%	4.57
Verizon Communications	CORP	Y	3.550	2049	83.36	3,740,000	4.26%	4.71%	0.00%	BBB+	\$ 3,117,664	83.36%		132,770	0.00000062	0.0002%	4.68
Verizon Communications	CORP	Y	3.500	2049	84.40	3,130,000	4.15%	4.57%	0.00%	BBB+	\$ 2,641,720	84.40%		109,550	0.00000051	0.0001%	4.54
Verizon Communications	CORP	Y	3.550	2049	83.25	8,658,000	4.26%	4.72%	0.00%	BBB+	\$ 7,207,785	83.25%		307,359	0.00000144	0.0004%	4.7
Verizon Communications	CORP	Y	3.550	2049	80.51	7,893,000	4.41%	4.94%	0.00%	BBB+	\$ 6,354,654	80.51%		280,202	0.00000138	0.0004%	4.91
Verizon Communications	CORP	Y	3.550	2049	77.00	6,658,000	4.61%	5.24%	0.00%	BBB+	\$ 5,126,660	77.00%		236,359	0.00000123	0.0003%	5.21
Verizon Communications	CORP	Y	3.300	2049	81.39	1,737,000	4.05%	4.58%	0.00%	BBB+	\$ 1,413,744	81.39%		57,321	0.00000028	0.0001%	4.56
Verizon Communications	CORP	Y	3.500	2049	85.89	5,293,000	4.07%	4.46%	0.00%	BBB+	\$ 4,546,158	85.89%		185,255	0.00000083	0.0002%	4.44
Verizon Communications	CORP	Y	4.050	2049	84.61	4,665,000	4.79%	5.17%	0.00%	BBB+	\$ 3,947,057	84.61%		188,933	0.00000085	0.0002%	5.16
Verizon Communications	CORP	Y	4.100	2049	80.93	3,560,000	5.07%	5.54%	0.00%	BBB+	\$ 2,881,108	80.93%		145,960	0.00000070	0.0002%	5.53
Verizon Communications	CORP	Y	4.050	2049	84.21	2,711,000	4.81%	5.21%	0.00%	BBB+	\$ 2,282,933	84.21%		109,796	0.00000050	0.0001%	5.19
Verizon Communications	CORP	Y	4.500	2049	85.99	3,561,000	5.23%	5.56%	0.00%	BBB+	\$ 3,062,104	85.99%		160,245	0.00000070	0.0002%	5.55
Verizon Communications	CORP	Y	4.550	2049	89.25	1,564,000	5.10%	5.35%	0.00%	BBB+	\$ 1,395,870	89.25%		71,162	0.00000030	0.0001%	5.34
Verizon Communications	CORP	Y	4.500	2049	83.52	3,167,000	5.39%	5.77%	0.00%	BBB+	\$ 2,645,078	83.52%		142,515	0.00000065	0.0002%	5.77
Verizon Communications	CORP	Y	4.550	2049	81.83	5,536,000	5.56%	5.98%	0.00%	BBB+	\$ 4,530,109	81.83%		251,888	0.00000117	0.0003%	5.98
Verizon Communications	CORP	Y	4.850	2049	84.55	1,848,000	5.74%	6.08%	0.00%	BBB+	\$ 1,562,484	84.55%		89,628	0.00000040	0.0001%	6.07
Verizon Communications	CORP	Y	4.000	2050	76.12	1,250,000,000	5.25%	5.82%	0.03%	BBB+	\$ 951,500,000	76.12%		50,000,000	0.00025717	0.0714%	5.81
Verizon Communications	CORP	Y	2.875	2050	61.58	2,750,000,000	4.67%	5.80%	0.06%	BBB+	\$ 1,693,450,000	61.58%		79,062,500	0.00056348	0.1565%	5.74

Verizon Communications	CORP	Y	2.650	2050	80.50	1,263,000	3.29%	3.87%	0.00%	BBB	\$	1,016,715	80.50%		33,470	0.00000017	0.0000%	3.82	
Verizon Communications	CORP	Y	2.750	2050	79.16	6,160,000	3.47%	4.08%	0.00%	BBB+	\$	4,876,256	79.16%		169,400	0.00000089	0.0002%	4.05	
Verizon Communications	CORP	Y	2.800	2050	84.25	3,573,000	3.32%	3.77%	0.00%	BBB+	\$	3,010,253	84.25%		100,044	0.00000048	0.0001%	3.76	
Verizon Communications	CORP	Y	2.950	2050	77.68	1,828,000	3.80%	4.43%	0.00%	BBB+	\$	1,419,990	77.68%		53,926	0.00000029	0.0001%	4.42	
Verizon Communications	CORP	Y	2.950	2050	77.19	1,565,000	3.82%	4.47%	0.00%	BBB+	\$	1,208,024	77.19%		46,168	0.00000025	0.0001%	4.45	
Verizon Communications	CORP	Y	2.750	2050	81.50	468,000	3.37%	3.91%	0.00%	BBB+	\$	381,420	81.50%		12,870	0.00000006	0.0000%	3.9	
Verizon Communications	CORP	Y	3.000	2050	81.03	3,001,000	3.70%	4.23%	0.00%	BBB+	\$	2,431,710	81.03%		90,030	0.00000045	0.0001%	4.23	
Verizon Communications	CORP	Y	4.000	2050	76.12	1,250,000,000	5.25%	5.82%	0.03%	BBB+	\$	951,500,000	76.12%		50,000,000	0.00025717	0.0714%	5.81	
Verizon Communications	CORP	Y	3.550	2051	70.57	4,500,000,000	5.03%	5.74%	0.09%	BBB+	\$	3,175,650,000	70.57%		159,750,000	0.00091264	0.2534%	5.73	
Verizon Communications	CORP	Y	3.875	2052	74.15	1,000,000,000	5.23%	5.77%	0.02%	BBB+	\$	741,500,000	74.15%		38,750,000	0.00020407	0.0567%	5.77	
Verizon Communications	CORP	N	5.012	2054	89.08	827,118,000	5.63%	5.79%	0.02%	BBB+	\$	736,796,714	89.08%		41,455,154	0.00016938	0.0470%	5.78	
Verizon Communications	CORP	Y	5.500	2054	95.98	1,000,000,000	5.73%	5.79%	0.02%	BBB+	\$	959,800,000	95.98%		55,000,000	0.00020458	0.0568%	5.78	
Verizon Communications	CORP	N	4.672	2055	84.60	851,790,000	5.52%	5.75%	0.02%	BBB+	\$	720,614,340	84.60%		39,795,629	0.00017328	0.0481%	5.75	
Verizon Communications	CORP	Y	2.987	2056	59.45	4,486,872,000	5.02%	5.83%	0.09%	BBB+	\$	2,667,445,404	59.45%		134,022,867	0.00092419	0.2566%	5.79	
Verizon Communications	CORP	Y	3.000	2060	58.09	2,000,000,000	5.16%	5.82%	0.04%	BBB+	\$	1,161,800,000	58.09%		60,000,000	0.00041119	0.1142%	5.78	
Verizon Communications	CORP	Y	3.700	2061	68.05	3,500,000,000	5.44%	5.83%	0.07%	BBB+	\$	2,381,750,000	68.05%		129,500,000	0.00072169	0.2004%	5.82	
Total						98,130,834,000	Total			\$	73,772,776,311	75.18%	3.99%	\$	3,912,836,131	2.009%	5.869%	5.55	
Source: FINRA											Embedded debt rate								3.9874%
Corporate and Agency Bonds FINRA.org											Weighted average yield to maturity								5.8693%
											Debt service / Market value								5.3039%
											Finra YTM								5.55%
											SAY								5.85%

DATA INPUT

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

WIRELESS

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

		Current Year											
Guideline Companies		Stock Price 12/31/2024	Beta levered	Revenues Per Share	Cash Flow Per Share	Earnings Per Share	Dividends Per Share	Book Value Per Share	Common Shares (1,000s)	Long-Term Debt	Capital Spending per share	Trailing P/E Ratio	Average Annual Dividend Yield
Name	Ticker	Yahoo	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL
AT&T Inc	T	\$22.77	0.80	\$ 17.00	\$ 5.30	\$ 2.25	\$ 1.11	\$ 16.85	7,175,289	\$ 126,375,000,000	\$ 2.95	10.20	6.70%
Verizon	VZ	\$39.99	0.65	\$ 32.05	\$ 8.95	\$ 4.60	\$ 2.67	\$ 22.35	4,209,626	\$ 128,878,000,000	\$ 4.15	9.60	7.20%
US Cellular	USM	\$62.72	0.65	\$ 43.80	\$ 7.40	\$ 0.45	\$ -	\$ 54.65	86,000	\$ 2,882,000,000	\$ 7.00	-	n/a
T-Mobile	TMUS	\$220.73	0.75	\$ 69.05	\$ 20.70	\$ 9.55	\$ 2.83	\$ 56.90	1,160,487	\$ 77,714,000,000	\$ 7.50	27.40	0.50%

Value Line 12-6-2024

The harmonic mean is the preferable method for averaging multiples, such as the price/earning ratio, in which price is in the numerator. If these ratios are averaged using an arithmetic mean (a common error), high data points are given greater weights than low data points. The harmonic mean, on the other hand, gives equal weight to each data point

Note:

Value Line figures are all values in US dollars.

DATA INPUT

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

WIRELESS

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

Guideline Companies		Stock Price 12/31/2024	Operating Margin	Income Tax Rate	% Return on Shareholders' Equity
Name	Ticker	Yahoo	VL	VL	VL
AT&T Inc	T	\$22.77	14.5%	24.0%	14.5%
Verizon	VZ	\$39.99	14.4%	24.0%	19.0%
US Cellular	USM	\$62.72	19.0%	24.0%	1.2%
T-Mobile	TMUS	\$220.73	38.4%	26.0%	17.0%

Value Line 12-6-2024
The harmonic mean is the preferable method for averaging multiples, such as the price/earning ratio, in which price is in the numerator. If these ratios are averaged using an arithmetic mean (a common error), high data points are given greater weights than low data points. The harmonic mean, on the other hand, gives equal weight to each data point

12.9%

Note:
Value Line figures are all values in US dollars.

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

Guideline Companies		Stock Price 12/31/2024				Projected (Next Year)							
			Operating Margin	Income Tax Rate	% Return on Shareholders' Equity	Revenues Per Share	Cash Flow Per Share	Earnings Per Share	Dividends	Bk Value	Common Shares	Capital Spending per share	% Return on Shareholders' Equity
Name	Ticker	Yahoo	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL	VL
AT&T Inc	T	\$22.77	14.5%	24.0%	14.5%	\$ 17.55	\$ 5.60	\$ 2.40	\$ 1.11	20.15	7,178,183	3.10	13.5%
Verizon	VZ	\$39.99	14.4%	24.0%	19.0%	\$ 32.80	\$ 9.00	\$ 4.70	\$ 2.72	22.50	4,209,704	4.15	19.5%
US Cellular	USM	\$62.72	19.0%	24.0%	1.2%	\$ 44.70	\$ 9.05	\$ 0.90	\$ -	56.45	85,000	7.35	1.5%
T-Mobile	TMUS	\$220.73	38.4%	26.0%	17.0%	\$ 75.35	\$ 22.75	\$ 11.05	\$ 3.54	66.35	1,141,745	12.75	16.5%

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

Guideline Companies		Stock Price 12/31/2024	% Retained to Common Equity	All Dividends to Net Profits	Market to Book
Name	Ticker	Yahoo	VL	VL	VL
AT&T Inc	T	\$22.77	8.0%	41.0%	93.5%
Verizon	VZ	\$39.99	19.5%	58.0%	96.7%
US Cellular	USM	\$62.72	1.5%	0.0%	96.4%
T-Mobile	TMUS	\$220.73	11.5%	32.0%	92.2%

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

			Forecast % Change								
			Dividends	Earnings	Cash Flow	Revenue	Income	Balance Sheet			
Guideline Companies		Stock Price 12/31/2024	2027-2029	2027-2029	2027-2029	2027-2029					
							Operating Income	Current Assets	PP & E Gross	Current Liabilities	Long Term Debt
Name	Ticker	Yahoo	VL	VL	VL	VL	10K	10K	10K	10K	10K
AT&T Inc	T	\$22.77	1.24	4.00	3.50	0.00	\$ 19,049,000,000	\$ 31,168,000,000	\$ 350,914,000,000	\$ 46,872,000,000	\$ 118,443,000,000
Verizon	VZ	\$39.99	2.96	0.50	0.00	2.00	\$ 17,949,000,000	\$ 40,523,000,000	\$ 331,406,000,000	\$ 64,771,000,000	\$ 121,381,000,000
US Cellular	USM	\$62.72	0.00	3.50	1.50	1.50	\$ (12,000,000)	\$ 1,345,000,000	\$ 8,387,000,000	\$ 884,000,000	\$ 2,837,000,000
T-Mobile	TMUS	\$220.73	0.00	20.00	10.00	8.00	\$ 11,339,000,000	\$ 18,404,000,000	\$ 50,633,000,000	\$ 20,174,000,000	\$ 72,700,000,000

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

Guideline Companies		Stock Price 12/31/2024	Intangibles (excl. Goodwill)
Name	Ticker	Yahoo	10K
AT&T Inc	T	\$22.77	\$ 132,290,000,000
Verizon	VZ	\$39.99	\$ 167,742,000,000
US Cellular	USM	\$62.72	\$ 4,579,000,000
T-Mobile	TMUS	\$220.73	\$ 103,070,000,000

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

			Cash Flow		Fair Value	Carrying Value	Current Maturity	ROE	All Div'ds to Net Prof	Cash Flow	EPS
Guideline Companies		Stock Price 12/31/2024	Depreciation & Amortization	Share Repurchase	Debt - Fair Value	Debt - Carrying Value	Operating Lease Expense	5 yr	5 yr	5 yr	5 yr
Name	Ticker	Yahoo	10K	10K	10-K	10-k	10-K	VL	VL	VL	VL
AT&T Inc	T	\$22.77	\$ 222,043,000,000	\$ 12,314,924	\$ 114,167,000,000	\$ 122,116,000,000	\$ 5,776,000,000	13.5%	34%	\$ 6.75	\$ 3.40
Verizon	VZ	\$39.99	\$ 222,884,000,000	\$ -	\$ 137,016,000,000	\$ 141,665,000,000	\$ 6,149,000,000	20.0%	56%	\$ 9.25	\$ 5.25
US Cellular	USM	\$62.72	\$ 5,885,000,000	\$ 9,878,516	\$ 2,785,000,000	\$ 2,890,000,000	\$ 211,000,000	3.5%		\$ 10.70	\$ 2.00
T-Mobile	TMUS	\$220.73	\$ 12,100,000,000	\$ -	\$ 72,147,000,000	\$ 78,265,000,000	\$ 5,964,000,000	17.5%	24%	\$ 32.65	\$ 18.25

SUPPORT FOR DIRECT CAPITALIZATION EQUITY COMPONENT

WASHINGTON STATE DEPARTMENT OF REVENUE

2025 ASSESSMENT YEAR

WIRELESS

Company	Ticker	Stock Price	2024		2025		2024		2025	
			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	22.77	2.25	9.88%	2.40	10.54%	5.30	23.28%	5.60	24.59%
Verizon	VZ	39.99	4.60	11.50%	4.70	11.75%	8.95	22.38%	9.00	22.51%
US Cellular	USM	62.72	0.45	0.72%	0.90	1.43%	7.40	11.80%	9.05	14.43%
T-Mobile	TMUS	220.73	9.55	4.33%	11.05	5.01%	20.70	9.38%	22.75	10.31%
Mean				6.61%		7.18%		16.71%		17.96%
Median				7.10%		7.77%		17.09%		18.47%
Max				11.50%		11.75%		23.28%		24.59%
Min				0.72%		1.43%		9.38%		10.31%
stdev				4.99%		4.83%		7.14%		6.73%
cov				75.46%		67.21%		42.76%		37.45%
harmean				2.21%		3.72%		14.34%		15.91%
Say				2.25%		3.75%		14.00%		16.00%

Source:
Actual earnings: Value Line
Estimated Earnings: Value Line
Actual Cash Flow: Value Line
Estimated Cash Flow: Value Line

Date updated:	04-Jan-25	
Created by:	Aswath Damodaran, adamodar@stern.nyu.edu	
What is this data:	Implied Equity Risk Premiums (by year)	S&P 500
Home Page:	http://www.damodaran.com	
Data website:	https://pages.stern.nyu.edu/~adamodar/New_Home_Page/data.html	

Year	Earnings Yield	Dividend Yield	S&P 500	Earnings*	Dividends*	Dividends + Buybacks	Change in Earnings	Change in Dividends	T.Bill Rate	T.Bond Rate	Bond-Bill	Smoothed Growth	Implied Premium (DDM)	Analyst Growth Estimate	Implied ERP (FCFE)	Implied Premium (FCFE with sustainable Payout)	ERP/Riskfree Rate
1960	5.34%	3.41%	58.11	3.10	1.98				2.66%	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	30.08	-30.79%	-3.24%	1.80%	5.05%	3.25%	3.56%	1.73%	10.30%	3.62%	2.91%	0.72
2002	5.23%	1.83%	879.82	46.04	16.08	29.83	18.51%	2.15%	1.20%	3.81%	2.61%	3.57%	2.29%	8.00%	4.10%	4.73%	1.08
2003	4.87%	1.61%	1111.91	54.69	17.88	31.58	18.79%	11.19%	1.00%	4.25%	3.25%	5.35%	2.12%	11.00%	3.69%	4.74%	0.87
2004	5.58%	1.60%	1211.92	67.68	19.407	40.60	23.75%	8.54%	2.18%	4.22%	2.04%	4.90%	2.02%	8.50%	3.65%	4.86%	0.86
2005	5.47%	1.79%	1248.29	76.45	22.38	61.17	12.96%	15.32%	4.31%	4.39%	0.08%	6.16%	2.20%	8.00%	4.08%	5.22%	0.93
2006	6.18%	1.77%	1418.3	87.72	25.05	73.16	14.74%	11.93%	4.88%	4.70%	-0.18%	5.93%	1.97%	12.50%	4.16%	6.12%	0.89
2007	5.62%	1.89%	1468.36	82.54	27.73	95.36	-5.91%	10.70%	3.31%	4.02%	0.71%	5.03%	2.06%	5.00%	4.37%	4.59%	1.09
2008	7.24%	3.11%	903.25	65.39	28.05	67.52	-20.78%	1.15%	1.59%	2.21%	0.62%	2.11%	4.05%	4.00%	6.43%	6.92%	2.91
2009	5.35%	2.00%	1115.10	59.65	22.31	37.43	-8.78%	-20.46%	0.14%	3.84%	3.70%	0.28%	2.60%	7.20%	4.36%	4.64%	1.14
2010	6.65%	1.84%	1257.64	83.66	23.12	55.53	40.25%	3.63%	0.13%	3.29%	3.16%	3.33%	2.24%	6.95%	5.20%	6.09%	1.58
2011	7.72%	2.07%	1257.60	97.05	26.02	71.28	16.01%	12.54%	0.03%	1.88%	1.85%	2.75%	2.71%	7.18%	6.01%	8.34%	3.20
2012	7.18%	2.13%	1426.19	102.47	30.44	75.90	5.58%	16.99%	0.05%	1.76%	1.71%	2.93%	2.47%	5.27%	5.78%	7.30%	3.28
2013	5.81%	1.96%	1848.36	107.45	36.28	88.13	4.86%	19.19%	0.07%	3.04%	2.97%	5.01%	2.03%	4.28%	4.96%	4.99%	1.63
2014	5.49%	1.92%	2058.90	113.01	39.44	101.98	5.17%	8.71%	0.05%	2.17%	2.12%	2.77%	2.24%	5.58%	5.78%	5.48%	2.66
2015	5.20%	2.11%	2043.94	106.32	43.16	106.10	-5.92%	9.43%	0.21%	2.27%	2.06%	2.96%	2.46%	5.51%	6.12%	5.16%	2.70
2016	4.86%	2.01%	2238.83	108.86	45.03	108.67	2.39%	4.33%	0.51%	2.45%	1.94%	2.64%	2.41%	5.54%	5.69%	4.50%	2.32
2017	4.67%	1.86%	2673.61	124.94	49.73	108.28	14.77%	10.44%	1.39%	2.41%	1.02%	3.22%	2.36%	7.05%	5.08%	4.75%	2.11
2018	5.92%	2.14%	2506.85	148.34	53.61	136.65	18.73%	7.80%	2.37%	2.68%	0.31%	3.24%	2.50%	4.12%	5.96%	5.55%	2.22
2019	5.03%	1.82%	3230.78	162.35	58.80	150.50	9.44%	9.68%	1.55%	1.92%	0.37%	2.57%	2.03%	3.96%	5.20%	5.06%	2.71
2020	3.72%	1.51%	3756.07	139.76	56.70	127.78	-13.91%	-3.57%	0.09%	0.93%	0.84%	0.74%	1.65%	5.42%	4.72%	4.94%	5.08
2021	4.33%	1.24%	4766.18	206.38	59.20	147.24	47.67%	4.41%	0.06%	1.51%	1.45%	1.71%	1.72%	6.47%	4.24%	4.90%	2.81
2022	5.72%	1.78%	3839.50	219.49	68.34	181.99	6.35%	15.44%	4.42%	3.88%	-0.54%	5.59%	2.16%	6.41%	5.94%	5.11%	1.53
2023	4.64%	1.47%	4769.83	221.36	70.07	164.79	0.85%	2.53%	5.20%	3.88%	-1.32%	3.68%	1.97%	8.74%	4.60%	4.57%	1.19

2024 Multi Stage Earnings Growth Model

Wireless Industry

- 4.10% GDP
- 9.9 Median Trailing Industry P/E
- 34.0% Average Target Dividend Payout Ratio (All dividends to net profit)
- 15.5% Average Target ROE

AT&T							
T	Year	Growth Rate	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow
	0		43.01%	56.99%	2.25		stock price = -22.77
	1	6.67%	67.20%	32.80%	2.40	0.79	0.79
	2	10.42%	60.86%	39.14%	2.65	1.04	1.04
	3	9.43%	55.62%	44.38%	2.90	1.29	1.29
	4	8.62%	51.20%	48.80%	3.15	1.54	1.54
	5	7.94%	46.25%	53.75%	3.40	1.83	1.83
	6	7.17%	41.30%	58.70%	3.64	2.14	2.14
	7	6.40%	36.35%	63.65%	3.88	2.47	2.47
	8	5.63%	31.40%	68.60%	4.10	2.81	2.81
	9	4.87%	26.45%	73.55%	4.29	3.16	3.16
	10	4.10%	26.45%	73.55%	4.47	3.29	46.08 49.36
	11+	4.10%	26.45%	73.55%	4.65	3.42	
Value Line Earnings Growth Rate					Ke =	13.17%	

Verizon							
VZ	Year	Growth Rate	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow
	0		14.03%	85.97%	4.60		stock price = -39.99
	1	2.17%	18.87%	81.13%	4.70	3.81	3.81
	2	2.93%	18.34%	81.66%	4.84	3.95	3.95
	3	2.84%	17.83%	82.17%	4.98	4.09	4.09
	4	2.76%	17.35%	82.65%	5.11	4.23	4.23
	5	2.69%	19.17%	80.83%	5.25	4.24	4.24
	6	2.97%	20.99%	79.01%	5.41	4.27	4.27
	7	3.25%	22.81%	77.19%	5.58	4.31	4.31
	8	3.54%	24.63%	75.37%	5.78	4.36	4.36
	9	3.82%	26.45%	73.55%	6.00	4.41	4.41
	10	4.10%	26.45%	73.55%	6.25	4.59	64.37 68.96
	11+	4.10%	26.45%	73.55%	6.50	4.78	
Value Line Earnings Growth Rate					Ke =	13.59%	

US Cellular							
USM	Year	Growth Rate	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Cash Flow
	0		6.45%	93.55%	0.45		stock price = -62.72
	1	100.00%	1.97%	98.03%	0.90	0.88	0.88
	2	30.56%	1.51%	98.49%	1.18	1.16	1.16
	3	23.40%	1.22%	98.78%	1.45	1.43	1.43
	4	18.97%	1.03%	98.97%	1.73	1.71	1.71
	5	15.94%	0.88%	99.12%	2.00	1.98	1.98
	6	13.57%	0.72%	99.28%	2.27	2.26	2.26
	7	11.21%	0.57%	99.43%	2.53	2.51	2.51
	8	8.84%	0.42%	99.58%	2.75	2.74	2.74
	9	6.47%	26.45%	73.55%	2.93	2.15	2.15
	10	4.10%	26.45%	73.55%	3.05	2.24	31.40 33.64
	11+	4.10%	26.45%	73.55%	3.17	2.33	

Ke = -2.48%

Average	8.26%
Median	10.97%