



MONTANA
DEPARTMENT OF
REVENUE

**2024 Capitalization Rate Study
Telecommunications - Medium & Small**

Completed: April 26, 2024

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Conclusion

Industry: Telecommunications - Medium & Small

2024 Assessment Year

Capital Structure ^[1]

| | |
|--------|---------------|
| Equity | 45.00% |
| Debt | 55.00% |

Equity Cost of Capital

| | | Weighting |
|--|----------------------|------------------|
| Capital Asset Pricing Model - Ex Post ^[2] | 12.09% | 48% |
| Capital Asset Pricing Model - Ex Ante ^[2] | 9.57% | 12% |
| 3 Stage Dividend Discount Model - Dividends ^[3] | 6.14% | 25% |
| 3 Stage Dividend Discount Model - Earnings ^[3] | 26.76% | <u>15%</u> |
| Weighted Average | <u>12.50%</u> | 100% |
| Selected Cost of Equity | <u>12.50%</u> | |

Debt Cost of Capital ^[4]

| | | Weighting |
|--|---------------------|------------------|
| A - Mergent's - Avg. YTM of A Rated Corporate Bonds ^[4] | 5.12% | 0% |
| Baa - Mergent's - Avg. YTM of Baa Rated Corporate Bonds ^[4] | 5.59% | 0% |
| Ba - Avg. of MTDOR Debt Study ^[5] , Bloomberg and Capital IQ | 6.70% | 20% |
| B - Avg. of MTDOR Debt Study ^[5] , Bloomberg and Capital IQ | 7.67% | 60% |
| Caa - Avg. of MTDOR Debt Study ^[5] , Bloomberg and Capital IQ | 10.58% | <u>20%</u> |
| Weighted Average | <u>8.06%</u> | 100% |
| Selected Cost of Debt | <u>8.06%</u> | |

Weighted Average Cost of Capital (WACC)

| Source of Capital | Capital Structure | Capital Cost of Capital | Marginal Tax Rate | Pre-tax Cost of Capital | After-tax Cost of Capital |
|--------------------------|--------------------------|--------------------------------|--------------------------|--------------------------------|----------------------------------|
| Equity | 45.00% | 12.50% | | 5.62% | 5.62% |
| Debt | 55.00% | 8.06% | 24.00% | 4.43% | 3.37% |
| WACC | 100.00% | | | 10.06% | 8.99% |
| WACC (Rounded) | | | | | 9.00% |

Notes

- [1] From worksheet: Capital Structure
- [2] From worksheet: Capital Asset Pricing Model Summary
- [3] From worksheet: Yield Equity Summary
- [4] January 2024, Mergent Bond Record
- [5] Montana Department of Revenue High Yield Debt Study

MONTANA DEPARTMENT OF REVENUE

**Direct Capitalization Rate Conclusion
Industry: Telecommunications - Medium & Small
2024 Assessment Year**

Capital Structure ^[1]

| | |
|--------|---------------|
| Equity | 45.00% |
| Debt | 55.00% |

Equity Capitalization Rate ^[2]

| | |
|---------------|---------------|
| NOI After-tax | 5.33% |
| GCF | 21.71% |

Debt Capitalization Rate ^[3]

| | |
|--------------------------|--------------|
| Calculated Current Yield | 6.00% |
|--------------------------|--------------|

NOI After-tax Direct Capitalization Rate

| Source of Capital | Capital Structure | Capitalization Rate | Marginal Tax Rate | Pre-tax Capitalization Rate | After-tax Capitalization Rate |
|------------------------|-------------------|---------------------|-------------------|-----------------------------|-------------------------------|
| Equity | 45.00% | 5.33% | | 2.40% | 2.40% |
| Debt | 55.00% | 6.00% | 24.00% | 3.30% | 2.51% |
| Total | 100.00% | | | 5.70% | 4.91% |
| Total (Rounded) | | | | | 4.95% |

GCF Direct Capitalization Rate

| Source of Capital | Capital Structure | Capitalization Rate | Marginal Tax Rate | Pre-tax Capitalization Rate | After-tax Capitalization Rate |
|------------------------|-------------------|---------------------|-------------------|-----------------------------|-------------------------------|
| Equity | 45.00% | 21.71% | | 9.77% | 9.77% |
| Debt | 55.00% | 6.00% | 24.00% | 3.30% | 2.51% |
| WACC | 100.00% | | | 13.07% | 12.28% |
| Total (Rounded) | | | | | 12.30% |

Notes:

[1] From worksheet: Capital Structure

[2] From worksheet: Direct Equity Summary

[3] From worksheet: Calculated Current Yield

MONTANA DEPARTMENT OF REVENUE

Selection of Guideline Companies

Industry: Telecommunications - Medium & Small

2024 Assessment Year

Screening Requirements:

The universe of companies is all companies listed in Value Line under the Cable TV and Telecom Services industries with a market capitalization under \$50B (excludes CHTR, CMCSA, T, TMUS, VZ, DTEGY, AMX).

Companies were then selected using the following screening criteria:

1. Headquartered and primarily operated in the United States.
2. Actively traded on an American exchange. All OTC and TO companies excluded.
3. Primarily provides two-way transmission of voice, image, data, or other information over wire, cable, fiber optics, microwave, or similar facilities.
4. Not engaged in material M&A activity.
5. Under \$50 Billion in market capitalization.

| Ticker Symbol | Headquartered /Incorporated in the U.S. | Actively traded on American exchange | Under \$50 Billion in Market Capitalization | Primarily operates a two-way comm network | Consider as Potential Guideline Company | Not Engaged in Material M&A Activity | Use as Guideline Company | Note |
|----------------------|--|---|--|--|--|---|---------------------------------|-------------|
| AMX | | | No | | | | | |
| ATNI | | | | No | | | | |
| ATUS | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| BAND | | | | No | | | | |
| BCE | No | | | | | | | |
| CABO | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| CCA.TO | No | | | | | | | |
| CHTR | | | No | | | | | |
| CMCSA | | | No | | | | | |
| DISH | | | | No | | | | |
| DTEGY | No | | | | | | | |
| DY | | | | No | | | | |
| FNGR | | | | No | | | | |
| FYBR | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| GOGO | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| GSAT | Yes | Yes | Yes | Yes | Yes | | No | [1] |
| IHS | No | | | | | | | |
| IDT | | | | No | | | | |
| IRDM | | | | | | | No | [1] |
| KLTR | | | | No | | | | |
| LIBTYA | No | | | | | | | |
| LILA | No | | | | | | | |
| LUMN | Yes | Yes | Yes | Yes | Yes | No | No | [2] |
| LVOX | | | | No | | | | |
| NN | | | | No | | | | |
| NUVR | | No | | | | | | |
| OOMA | | | | No | | | | |
| SATS | | | | | | No | | [3] |
| SHEN | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |

MONTANA DEPARTMENT OF REVENUE

Selection of Guideline Companies

Industry: Telecommunications - Medium & Small

2024 Assessment Year

Screening Requirements:

The universe of companies is all companies listed in Value Line under the Cable TV and Telecom Services industries with a market capitalization under \$50B (excludes CHTR, CMCSA, T, TMUS, VZ, DTEGY, AMX).

Companies were then selected using the following screening criteria:

1. Headquartered and primarily operated in the United States.
2. Actively traded on an American exchange. All OTC and TO companies excluded.
3. Primarily provides two-way transmission of voice, image, data, or other information over wire, cable, fiber optics, microwave, or similar facilities.
4. Not engaged in material M&A activity.
5. Under \$50 Billion in market capitalization.

| Ticker Symbol | Headquartered /Incorporated in the U.S. | Actively traded on American exchange | Under \$50 Billion in Market Capitalization | Primarily operates a two-way comm network | Consider as Potential Guideline Company | Not Engaged in Material M&A Activity | Use as Guideline Company | Note |
|----------------------|--|---|--|--|--|---|---------------------------------|-------------|
| T | | | No | | | | | |
| T.TO | No | | | | | | | |
| TCX | No | | | | | | | |
| TDS | Yes | Yes | Yes | Yes | Yes | No | No | [4] |
| TEF | No | | | | | | | |
| TIGO | No | | | | | | | |
| TMUS | | | No | | | | | |
| USM | Yes | Yes | Yes | Yes | Yes | No | No | [4] |
| VOD | No | | | | | | | |
| VZ | | | No | | | | | |
| WOW | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| ZD | | | | No | | | | |
| ZM | | | | No | | | | |

[1] Removed because primarily satellite based operations are not sufficiently comparable with other guideline public companies.

[2] Removed for significant M&A activity.

[3] Merging with DISH

[4] TDS & USM exploring strategic alternatives to current structure

MONTANA DEPARTMENT OF REVENUE

Support for Capital Structure
Telecommunications - Medium & Small
2024 Assessment Year

(\$ and Shares Outstanding In Millions, Except Per Share Amounts)

| A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|----------------------|-------------------------|-------------------|--------------------|--------------------|---------------------------------|-----------------|--------------------|-------------------|------------------------|---|------------|-------------|--------------------|
| Ticker | Company | Industry Group | Financial Strength | Shares Outstanding | End of Year Closing Stock Price | MV Common Stock | MV Preferred Stock | MV Long Term Debt | PV of Operating Leases | Total Common, Preferred, LT Debt, & Op Leases | % Common | % Preferred | % Debt & Op Leases |
| | | <i>Value Line</i> | <i>Value Line</i> | <i>10-K</i> | <i>Yahoo</i> | <i>ExF</i> | <i>10-K</i> | <i>10-K</i> | <i>10-K</i> | <i>G+H+I+J</i> | <i>G/K</i> | <i>H/K</i> | <i>(I+J)/K</i> |
| | | | | | | | <i>Note [1]</i> | <i>[Note 2]</i> | | | | | |
| ATUS | Altice USA | CABLETV | C+ | 456 | 3.25 | 1,482 | 0 | 21,444 | 313 | 23,238 | 6% | 0% | 94% |
| CABO | Cable One | CABLETV | B+ | 6 | 556.59 | 3,126 | 0 | 3,349 | 10 | 6,486 | 48% | 0% | 52% |
| FYBR | Frontier Commun. Parent | TELESERV | B | 246 | 25.34 | 6,229 | 0 | 10,742 | 195 | 17,166 | 36% | 0% | 64% |
| GOGO | Gogo Inc. | TELESERV | C++ | 128 | 10.13 | 1,301 | 0 | 600 | 83 | 1,985 | 66% | 0% | 34% |
| SHEN | Shenandoah Telecom. | TELESERV | B+ | 50 | 21.62 | 1,087 | 0 | 300 | 51 | 1,438 | 76% | 0% | 24% |
| WOW | WideOpenWest Inc. | CABLETV | C++ | 84 | 4.05 | 338 | 0 | 887 | 22 | 1,248 | 27% | 0% | 73% |
| All Companies | | | | | | 13,564 | 0 | 37,322 | 675 | 51,561 | 26% | 0% | 74% |
| | Average | | | | | | | | | | 43% | 0% | 57% |
| | Median | | | | | | | | | | 42% | 0% | 58% |
| | Trimmed Average | | | | | | | | | | 44% | 0% | 56% |
| | High | | | | | | | | | | 76% | 0% | 94% |
| | Low | | | | | | | | | | 6% | 0% | 24% |
| | Selected | | | | | | | | | | 45% | | 55% |

Notes:

[1] Market value of preferred stock assumed to equal book value

[2] Market value of debt is fair value of long term debt from 10-K notes

2024 Changes to Guideline Companies

2024 - Removed TDS & USM for merger activity

| | | Median | |
|----------------|-----|---------------|-----|
| Current Year | 42% | 0% | 58% |
| Prior Year | 46% | 0% | 54% |
| 2 Years Prior | 30% | 0% | 64% |
| 3 Year Average | 39% | 0% | 58% |

MONTANA DEPARTMENT OF REVENUE

**Capital Asset Pricing Model (CAPM)
Telecommunications - Medium & Small
2024 Assessment Year**

$$k_e = R_f + \beta \times ERP$$

| | | <i>Ex Post</i> | <i>Ex Ante</i> |
|-----------|-------------------------------------|----------------|----------------|
| $k_e =$ | Cost of Equity | 12.09% | 9.57% |
| $R_f =$ | Risk Free Rate | 4.20% | 4.20% |
| $\beta =$ | Beta | 1.10 | 1.10 |
| $ERP =$ | Equity Risk Premium ($R_m - R_f$) | 7.17% | 4.88% |
| $R_m =$ | Market Rate of Return | 11.37% | 9.08% |

Risk Free Rate Measures (R_f):

The Value Line Investment Survey: Selection & Opinion^[1]

January 5, 2024 Page 841

Selected Yields on Taxable U.S. Treasury Securities as of 12/22/23

| | |
|---------|-------|
| 10-year | 3.90% |
| 30-year | 4.05% |

Federal Reserve Statistical Release^[2]

U.S. government securities, Treasury constant maturities, Nominal, December 29, 2023

| | |
|--------------------------------|---------------------|
| 10-year | 3.88% |
| 20-year | 4.20% |
| 30-year | 4.03% |
| Risk Free Rate Selected | <u>4.20%</u> |

Notes

[1] "Value Line Selection & Opinion", Value Line (January 5, 2024)

[2] <https://www.federalreserve.gov/releases/h15/>

Ex Post - Equity Risk Premium Measures ($ERP = R_m - R_f$)

Kroll, 2024 Cost of Capital Navigator

| | | <u>R_m</u> | <u>R_f</u> | <u>ERP</u> |
|---|------------------------|-------------------------|-------------------------|---------------------|
| ERP "Historical" - <i>Ex Post</i> | <i>Arithmetic Avg.</i> | 11.31% | 4.14% | 7.17% |
| ERP "Supply-side" - <i>Ex Post</i> | <i>Arithmetic Avg.</i> | 10.36% | 4.14% | 6.22% |
| Ex Post Equity Risk Premium Selected | | <u>11.37%</u> | <u>4.20%</u> | <u>7.17%</u> |

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model (CAPM)
Telecommunications - Medium & Small
2024 Assessment Year

$$k_e = R_f + \beta \times ERP$$

Ex Ante - Equity Risk Premium Measures (ERP = Rm - Rf)

DOR 3 Stage Dividend Growth Model, S & P 500, See Exhibit

| | <u>R_m</u> | <u>R_f</u> | <u>ERP</u> |
|----------------------|----------------------|----------------------|------------|
| ERP - <i>Ex Ante</i> | 7.22% | 4.20% | 3.02% |

Kroll, 2024 Cost of Capital Navigator

| | <u>R_m</u> | <u>R_f</u> | <u>ERP</u> |
|------------------------------------|----------------------|----------------------|------------|
| ERP "Conditional" - <i>Ex Ante</i> | 9.00% | 3.50% | 5.50% |

Damodaran Implied ERP (Jan 5, 2024)

| | <u>R_m</u> | <u>R_f</u> | <u>ERP</u> |
|--|----------------------|----------------------|--------------|
| Implied Premium - <i>Ex Ante</i> - Trailing 12 month, with adjusted payout | 8.45% | 3.88% | 4.57% |
| Implied Premium - <i>Ex Ante</i> - Trailing 12 month cash yields | 8.48% | 3.88% | 4.60% |
| Implied Premium - <i>Ex Ante</i> - Average CF yield last 10 years | 9.95% | 3.88% | 6.07% |
| Implied Premium - <i>Ex Ante</i> - Net cash yield | 8.31% | 3.88% | 4.43% |
| Implied Premium - <i>Ex Ante</i> - Normalized earnings and payout | <u>8.17%</u> | <u>3.88%</u> | <u>4.29%</u> |
| Damodaran Average | 8.67% | 3.88% | 4.79% |

| | <u>R_m</u> | <u>R_f</u> | <u>ERP</u> |
|----------------|----------------------|----------------------|------------|
| <u>Average</u> | 8.51% | | 4.64% |
| <u>Median</u> | 8.45% | | 4.57% |
| <u>High</u> | 9.95% | | 6.07% |
| <u>Low</u> | 7.22% | | 3.02% |

Ex Ante Equity Risk Premium Selected

| | | |
|--------------|--------------|--------------|
| 9.08% | 4.20% | 4.88% |
|--------------|--------------|--------------|

MONTANA DEPARTMENT OF REVENUE

**Support for Beta Selection in CAPM
Telecommunications - Medium & Small
2024 Assessment Year**

| A | B | C | D | E |
|-----------------|-------------------------|-------------------|--------------------|-------------------|
| Ticker | Company | Industry Group | Financial Strength | Beta |
| | | <i>Value Line</i> | <i>Value Line</i> | <i>Value Line</i> |
| ATUS | Altice USA | CABLETV | C+ | 1.15 |
| CABO | Cable One | CABLETV | B+ | 1.00 |
| FYBR | Frontier Commun. Parent | TELESERV | B | 1.45 |
| GOGO | Gogo Inc. | TELESERV | C++ | 0.85 |
| SHEN | Shenandoah Telecom. | TELESERV | B+ | 0.90 |
| WOW | WideOpenWest Inc. | CABLETV | C++ | 1.40 |
| | Average | | | 1.13 |
| | Median | | | 1.08 |
| | Trimmed Average | | | 1.11 |
| | High | | | 1.45 |
| | Low | | | 0.85 |
| Selected | | | | 1.10 |

MONTANA DEPARTMENT OF REVENUE

**Inflation & Real Growth
Telecommunications - Medium & Small
2024 Assessment Year**

| A | B | C | D | Nominal Growth | |
|---|-----------------|-------------------|----------------|----------------|--------------|
| | | | | E | F |
| Source Description | Inflation (CPI) | Real Growth (GDP) | Nominal Growth | Low | High |
| Livingston Survey ^[1] | 2.30% | 2.00% | 4.30% | | |
| Survey of Professional Forecasters ^[2] | 2.24% | 2.00% | 4.24% | | |
| Congressional Budget Office ^[3] | 2.20% | 1.90% | 4.10% | | |
| Average | 2.25% | 1.97% | 4.21% | | |
| Median | 2.24% | 2.00% | 4.24% | | |
| High | 2.30% | 2.00% | 4.30% | | |
| Low | 2.20% | 1.90% | 4.10% | | |
| Selected | 2.25% | 2.00% | 4.25% | 4.10% | 4.30% |

| Inflationary Trend Factors | | | | | | |
|----------------------------|------------------|------------------------------|--------------------------------|-------------------------|------------------------------|--------------------------|
| Year | Dec. CPI-U Index | Percent Change From Previous | Dec. to Dec. Conversion Factor | Annual Avg. CPI-U Index | Percent Change From Previous | Annual Conversion Factor |
| | <i>Note [5]</i> | <i>Note [6]</i> | <i>Note [7]</i> | <i>Note [5]</i> | <i>Note [6]</i> | <i>Note [7]</i> |
| 2012 | 229.601 | 1.7% | 1.3360 | 229.594 | 2.0% | 1.3271 |
| 2013 | 233.049 | 1.5% | 1.3162 | 232.957 | 1.4% | 1.3080 |
| 2014 | 234.812 | 0.8% | 1.3063 | 236.736 | 1.6% | 1.2871 |
| 2015 | 236.525 | 0.7% | 1.2969 | 237.017 | 0.1% | 1.2856 |
| 2016 | 241.432 | 2.0% | 1.2705 | 240.007 | 1.2% | 1.2696 |
| 2017 | 246.524 | 2.1% | 1.2443 | 245.120 | 2.1% | 1.2431 |
| 2018 | 251.233 | 1.9% | 1.2210 | 251.107 | 2.4% | 1.2134 |
| 2019 | 256.974 | 2.2% | 1.1937 | 255.657 | 1.8% | 1.1918 |
| 2020 | 260.474 | 1.3% | 1.1776 | 258.811 | 1.2% | 1.1773 |
| 2021 | 278.802 | 6.6% | 1.1002 | 270.970 | 4.5% | 1.1245 |
| 2022 | 296.797 | 6.1% | 1.0335 | 292.655 | 7.4% | 1.0412 |
| 2023 | 306.746 | 3.2% | 1.0000 | 304.702 | 4.0% | 1.0000 |

Notes

[1] Federal Reserve Bank of Philadelphia The Livingston Survey December 15, 2023 Table 3 Inflation Rate and Real GDP mean

<https://www.philadelphiafed.org/research-and-data/real-time-center/livingston-survey>

[2] Federal Reserve Bank of Philadelphia Survey of Professional Forecasters February 9, 2024 Table 8 and Table 9 Average over next 10-Year mean

<https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/survey-of-professional-forecasters>

[3] The Budget and Economic Outlook: 2024 To 2034, Table 2-1

<https://www.cbo.gov/about/products/budget-economic-data#4>

[5] Historical Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, all items, index averages (1982-84=100, unless otherwise noted)

<https://www.bls.gov/cpi/tables/supplemental-files/>

[6] (Row year - Previous Year) / Row Year

[7] Most current year / Row year

MONTANA DEPARTMENT OF REVENUE

3 Stage Dividend Discount Model (DDM)

Telecommunications - Medium & Small

2024 Assessment Year

$$k_e = (D_1 / P_0) + g$$

k_e = Cost of Equity

D_1 = Expected Dividend

P_0 = Current Price Per Share

g = Sustainable Long-Term Growth

| A | B | C | D | E | F | G | H | I |
|-----------------|-------------------------|---------------------------------|-------------------------------------|---------------------------------|--|--|--------------------------------------|--------------------------------------|
| Ticker | Company | 2023 Year End Stock Price | 2024 Est Div'ds Decl'd per sh | Expected Equity Payout Yield | Sustainable Long-Term Growth Rate ^[1] | Sustainable Long-Term Growth Rate ^[1] | Cost of Equity Dividend Growth | Cost of Equity Earnings Growth |
| | | <i>Yahoo</i> | <i>Value Line</i> | <i>D/C</i> | <i>Dividends</i> | <i>Earnings</i> | <i>E+F</i> | <i>E+G</i> |
| | | P_0 | D_1 | D_1/P_0 | g | g | k_e | k_e |
| ATUS | Altice USA | 3.25 | 0.00 | 0.00% | 0.00% | 0.00% | | |
| CABO | Cable One | 556.59 | 12.00 | 2.16% | 3.81% | 4.83% | 5.97% | 6.98% |
| FYBR | Frontier Commun. Parent | 25.34 | 0.00 | 0.00% | 0.00% | 0.00% | | |
| GOGO | Gogo Inc. | 10.13 | 0.00 | 0.00% | 0.00% | 0.00% | | |
| SHEN | Shenandoah Telecom. | 21.62 | 0.10 | 0.46% | 5.85% | 46.08% | 6.32% | 46.54% |
| WOW | WideOpenWest Inc. | 4.05 | 0.00 | 0.00% | 0.00% | 0.00% | | |
| Average | | | | | | | 6.14% | 26.76% |
| Median | | | | | | | 6.14% | 26.76% |
| High | | | | | | | 6.32% | 46.54% |
| Low | | | | | | | 5.97% | 6.98% |
| Selected | | | | | | | 6.14% | 26.76% |

Notes

[1] From worksheet: DDM Sustainable Long-Term Growth

Implied Sustainable LTG:

4.83%

25.45%

MONTANA DEPARTMENT OF REVENUE

Support for DDM - Short Term Growth Rate Calculations

Telecommunications - Medium & Small

2024 Assessment Year

| A | B | C | D | E | F | G |
|---------------|-------------------------|--|--------------------------------------|--------------------------------|---|-------------------------------|
| Ticker | Company | End of Year Closing Stock Price | Div'ds Decl'd per sh 2024 Est | Expected Dividend Yield | Div'ds Decl'd per sh 2026-2028 Est | Short-Term Growth Rate |
| | | <i>Yahoo</i> | <i>Value Line</i> | <i>D / C</i> | <i>Value Line</i> | <i>Note [1]</i> |
| ATUS | Altice USA | 3.25 | 0.00 | 0.00% | 0.00 | 0.00% |
| CABO | Cable One | 556.59 | 12.00 | 2.16% | 13.00 | 2.70% |
| FYBR | Frontier Commun. Parent | 25.34 | 0.00 | 0.00% | 0.00 | 0.00% |
| GOGO | Gogo Inc. | 10.13 | 0.00 | 0.00% | 0.00 | 0.00% |
| SHEN | Shenandoah Telecom. | 21.62 | 0.10 | 0.46% | 0.15 | 14.47% |
| WOW | WideOpenWest Inc. | 4.05 | 0.00 | 0.00% | 0.00 | 0.00% |

| A | B | C | D | E |
|---------------|-------------------------|------------------------------------|---|-------------------------------|
| Ticker | Company | Earnings per share 2024 Est | Earnings per share 2026-2028 Est | Short-Term Growth Rate |
| | | <i>Value Line</i> | <i>Value Line</i> | <i>Note [1]</i> |
| ATUS | Altice USA | 0.35 | 0.50 | 12.62% |
| CABO | Cable One | 42.00 | 50.00 | 5.98% |
| FYBR | Frontier Commun. Parent | 0.60 | 1.30 | 29.40% |
| GOGO | Gogo Inc. | 0.55 | 1.10 | 25.99% |
| SHEN | Shenandoah Telecom. | 0.10 | 0.60 | 81.71% |
| WOW | WideOpenWest Inc. | 0.30 | 0.50 | 18.56% |

Notes

[1] 4 year compound annual growth rate (CAGR) - 3 periods

MONTANA DEPARTMENT OF REVENUE

Support for DDM - Sustainable Long Term Growth

Telecommunications - Medium & Small

2024 Assessment Year

| Dividend Growth Rate | | | | | | | | | Stage 1 | | | | |
|----------------------|-----------------------|----------------------|--|--------------------------------|-------------------------|---------------------------------------|---|--------------------|----------------|----------------|----------------|----------------|----------------|
| Ticker | Company | Year End Stock Price | Expected Short-Term Dividend Growth Rate | Expected Long-Term Growth Rate | Expected Dividend Yield | Internal Rate of Return | Implied Sustainable Long-Term Growth Rate (g) | Initial Investment | D ₁ | D ₂ | D ₃ | D ₄ | D ₅ |
| | | <i>Yahoo</i> | <i>Note [1]</i> | <i>Note [2]</i> | D_1/P_0 | $K_e = IRR \text{ of } D_1 : D_{500}$ | $g = IRR - Div. \text{ Yield}$ | | | | | | |
| ATUS | Alice USA | 3.25 | 0.00% | 4.25% | 0.00% | 0.00% | 0.00% | (3.25) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CABO | Cable One | 556.59 | 2.70% | 4.25% | 2.16% | 5.97% | 3.81% | (556.59) | 12.00 | 12.32 | 12.66 | 13.00 | 13.35 |
| FYBR | Frontier Commun. Pare | 25.34 | 0.00% | 4.25% | 0.00% | 0.00% | 0.00% | (25.34) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| GOGO | Gogo Inc. | 10.13 | 0.00% | 4.25% | 0.00% | 0.00% | 0.00% | (10.13) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHEN | Shenandoah Telecom. | 21.62 | 14.47% | 4.25% | 0.46% | 6.32% | 5.85% | (21.62) | 0.10 | 0.11 | 0.13 | 0.15 | 0.17 |
| WOW | WideOpenWest Inc. | 4.05 | 0.00% | 4.25% | 0.00% | 0.00% | 0.00% | (4.05) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Earnings Growth Rate | | | | | | | | | Stage 1 | | | | |
|----------------------|-----------------------|----------------------|--|--------------------------------|-------------------------|---------------------------------------|---|--------------------|----------------|----------------|----------------|----------------|----------------|
| Ticker | Company | Year End Stock Price | Expected Short-Term Earnings Growth Rate | Expected Long-Term Growth Rate | Expected Dividend Yield | Internal Rate of Return | Implied Sustainable Long-Term Growth Rate (g) | Initial Investment | D ₁ | D ₂ | D ₃ | D ₄ | D ₅ |
| | | <i>Yahoo</i> | <i>Note [1]</i> | <i>Note [2]</i> | D_1/P_0 | $K_e = IRR \text{ of } D_1 : D_{500}$ | $g = IRR - Div. \text{ Yield}$ | | | | | | |
| ATUS | Alice USA | 3.25 | 12.62% | 4.25% | 0.00% | 0.00% | 0.00% | (3.25) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| CABO | Cable One | 556.59 | 5.98% | 4.25% | 2.16% | 6.98% | 4.83% | (556.59) | 12.00 | 12.72 | 13.48 | 14.29 | 15.14 |
| FYBR | Frontier Commun. Pare | 25.34 | 29.40% | 4.25% | 0.00% | 0.00% | 0.00% | (25.34) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| GOGO | Gogo Inc. | 10.13 | 25.99% | 4.25% | 0.00% | 0.00% | 0.00% | (10.13) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SHEN | Shenandoah Telecom. | 21.62 | 81.71% | 4.25% | 0.46% | 46.54% | 46.08% | (21.62) | 0.10 | 0.18 | 0.33 | 0.60 | 1.09 |
| WOW | WideOpenWest Inc. | 4.05 | 18.56% | 4.25% | 0.00% | 0.00% | 0.00% | (4.05) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Notes

[1] From worksheet: DDM Short Term Growth Rate Calculations

[2] From worksheet: Inflation & Real Growth

MONTANA DEPARTMENT OF REVENUE

Support for DDM - Sustainable Long Term Growth

Telecommunications - Medium & Small

2024 Assessment Year

| Dividend | Stage 2 | | | | | | | | | | | | | | | Stage 3 | | |
|----------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Ticker | D ₆ | D ₇ | D ₈ | D ₉ | D ₁₀ | D ₁₁ | D ₁₂ | D ₁₃ | D ₁₄ | D ₁₅ | D ₁₆ | D ₁₇ | D ₁₈ | D ₁₉ | D ₂₀ | D ₂₁ | D ₂₂ | D ₅₀₀ |
| ATUS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| CABO | 13.73 | 14.11 | 14.51 | 14.91 | 15.33 | 15.76 | 16.21 | 16.66 | 17.13 | 17.61 | 18.10 | 18.61 | 19.14 | 19.67 | 20.22 | 21.08 | 21.98 | 9,602,535,791 |
| FYBR | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| GOGO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| SHEN | 0.20 | 0.22 | 0.25 | 0.29 | 0.33 | 0.37 | 0.42 | 0.48 | 0.55 | 0.62 | 0.71 | 0.81 | 0.92 | 1.05 | 1.19 | 1.24 | 1.30 | 566,056,949 |
| WOW | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |

| Earnings | Stage 2 | | | | | | | | | | | | | | | Stage 3 | | |
|----------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| Ticker | D ₆ | D ₇ | D ₈ | D ₉ | D ₁₀ | D ₁₁ | D ₁₂ | D ₁₃ | D ₁₄ | D ₁₅ | D ₁₆ | D ₁₇ | D ₁₈ | D ₁₉ | D ₂₀ | D ₂₁ | D ₂₂ | D ₅₀₀ |
| ATUS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| CABO | 16.03 | 16.97 | 17.97 | 19.02 | 20.14 | 21.32 | 22.57 | 23.89 | 25.30 | 26.78 | 28.35 | 30.01 | 31.78 | 33.64 | 35.62 | 37.13 | 38.71 | 16,910,133,354 |
| FYBR | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| GOGO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| SHEN | 1.92 | 3.40 | 6.00 | 10.59 | 18.70 | 33.01 | 58.29 | 102.90 | 181.68 | 320.75 | 566.27 | 999.74 | 1,765.02 | 3,116.10 | 5,501.41 | 5,735.22 | 5,978.97 | 2,612,069,351,869 |
| WOW | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |

MONTANA DEPARTMENT OF REVENUE

Support for Yield Capitalization Rate - Debt Rating

Telecommunications - Medium & Small

2024 Assessment Year

| A | B | C | D | E | I |
|--------|-------------------------|-------------------|--------------------|--------------------------|-------------------|
| Ticker | Company | Industry Group | Financial Strength | Moody's Long Term Rating | Yield to Maturity |
| | | <i>Value Line</i> | <i>Value Line</i> | <i>Moody's</i> | |
| ATUS | Altice USA | CABLETV | C+ | B1 | 7.67% |
| CABO | Cable One | CABLETV | B+ | Ba3 | 6.70% |
| FYBR | Frontier Commun. Parent | TELESERV | B | B1 | 7.67% |
| GOGO | Gogo Inc. | TELESERV | C++ | B1 | 7.67% |
| SHEN | Shenandoah Telecom. | TELESERV | B+ | | |
| WOW | WideOpenWest Inc. | CABLETV | C++ | Caa | 10.58% |
| | Average | | | | 8.06% |
| | Median | | | | 7.67% |
| | Trimmed Average | | | | 7.67% |
| | High | | | | 10.58% |
| | Low | | | | 6.70% |
| | Selected | | | | 8.06% |

**Highlighted ratings are estimated based on financial strength and historical interest coverage ratios*

MONTANA DEPARTMENT OF REVENUE
Support for Direct Capitalization - Equity Capitalization Rates
Telecommunications - Medium & Small
2024 Assessment Year

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R |
|------------------------|-------------------------|---------------------------------|-----------------|------------|-----------------------|------------------|------------------------------------|-----------------------------------|---------------------------------|----------------------------|------------------------|-------------------|--------------------------------------|-------------------------------------|------------------------|----------------------|---------------|
| Ticker | Company | End of Year Closing Stock Price | VL Historic EPS | VL Est EPS | VL Historic P/E Ratio | VL Est P/E Ratio | Ke Estimate - Earnings (Hist. P/E) | Ke Estimate - Earnings (Est. P/E) | VL Historic Cash Flow Per Share | VL Est Cash Flow Per Share | VL Historic P/CF Ratio | VL Est P/CF Ratio | Ke Estimate - Cash Flow (Hist. P/CF) | Ke Estimate - Cash Flow (Est. P/CF) | Market Value of Equity | Book Value of Equity | MTBR |
| | | Yahoo | Value Line | Value Line | C/D | C/E | 1/F | 1/G | Value Line | Value Line | C/J | C/K | 1/L | 1/M | Price x Shrs | Value Line | P/Q |
| ATUS | Altice USA | 3.25 | 0.12 | 0.35 | 27.08 | 9.29 | 3.69% | 10.77% | 3.72 | 4.05 | 0.87 | 0.80 | 114.46% | 124.62% | 1,482 | (422) | (3.51) |
| CABO | Cable One | 556.59 | 45.18 | 42.00 | 12.32 | 13.25 | 8.12% | 7.55% | 101.38 | 119.10 | 5.49 | 4.67 | 18.21% | 21.40% | 3,126 | 1,758 | 1.78 |
| FYBR | Frontier Commun. Parent | 25.34 | 0.12 | 0.60 | 211.17 | 42.23 | 0.47% | 2.37% | 6.62 | 5.85 | 3.83 | 4.33 | 26.12% | 23.09% | 6,229 | 5,134 | 1.21 |
| GOGO | Gogo Inc. | 10.13 | 0.50 | 0.55 | 20.26 | 18.42 | 4.94% | 5.43% | 0.82 | 0.75 | 12.35 | 13.51 | 8.09% | 7.40% | 1,301 | (102) | (12.77) |
| SHEN | Shenandoah Telecom. | 21.62 | 0.16 | 0.10 | 135.13 | 216.20 | 0.74% | 0.46% | 1.47 | 1.65 | 14.71 | 13.10 | 6.80% | 7.63% | 1,087 | 653 | 1.67 |
| WOW | WideOpenWest Inc. | 4.05 | (3.54) | 0.30 | (1.14) | 13.50 | | 7.41% | 2.03 | (0.90) | 2.00 | (4.50) | 50.12% | | 338 | 575 | 0.59 |
| Average | | | | | 67.47 | 52.15 | 3.59% | 5.66% | | | 6.54 | 5.32 | 37.30% | 36.83% | | | (1.84) |
| Median | | | | | 23.67 | 15.96 | 3.69% | 6.42% | | | 4.66 | 4.50 | 22.17% | 21.40% | | | 0.90 |
| Trimmed Average | | | | | 48.70 | 21.85 | 3.12% | 5.69% | | | 5.92 | 5.73 | 25.64% | 17.37% | | | (0.01) |
| High | | | | | 211.17 | 216.20 | 8.12% | 10.77% | | | 14.71 | 13.51 | 114.46% | 124.62% | | | 1.78 |
| Low | | | | | (1.14) | 9.29 | 0.47% | 0.46% | | | 0.87 | (4.50) | 6.80% | 7.40% | | | (12.77) |
| Selected | | | | | 18.77 | | 5.33% | | | | 4.61 | | 21.71% | | | | 0.90 |

MONTANA DEPARTMENT OF REVENUE

**Support for Direct Capitalization - Debt Capitalization Rate
Telecommunications - Medium & Small
2024 Assessment Year**

(\$ in Millions)

| A | B | C | D | E | F | G | H | I | J |
|------------------------|-------------------------|----------------------------|--------------------------|--------------------------|-------------------------|-------------------------|--------------------|---------------|--------------|
| Ticker | Company | Current Year Interest Exp. | Previous Year MV LT Debt | Previous Year BV LT Debt | Current Year MV LT Debt | Current Year BV LT Debt | Average MV LT Debt | Current Yield | MTBR |
| | | <i>10-K</i> | <i>10-K</i> | <i>10-K</i> | <i>10-K</i> | <i>10-K</i> | <i>(D+F)/2</i> | <i>(C/H)</i> | <i>(F/G)</i> |
| ATUS | Altice USA | 1,639 | 21,935 | 26,588 | 21,444 | 25,075 | 21,689 | 7.56% | 0.86 |
| CABO | Cable One | 170 | 3,415 | 3,809 | 3,349 | 3,646 | 3,382 | 5.03% | 0.92 |
| FYBR | Frontier Commun. Parent | 653 | 8,241 | 9,125 | 10,742 | 11,261 | 9,492 | 6.88% | 0.95 |
| GOGO | Gogo Inc. | 33 | 694 | 697 | 600 | 595 | 647 | 5.11% | 1.01 |
| SHEN | Shenandoah Telecom. | 8 | 75 | 75 | 300 | 300 | 187 | 4.48% | 1.00 |
| WOW | WideOpenWest Inc. | 71 | 729 | 743 | 887 | 935 | 808 | 8.80% | 0.95 |
| All Companies | | 2,575 | 35,089 | 41,036 | 37,322 | 41,811 | 36,205 | 7.11% | 0.89 |
| Average | | | | | | | | 6.31% | 0.95 |
| Median | | | | | | | | 5.99% | 0.95 |
| Trimmed Average | | | | | | | | 6.14% | 0.96 |
| High | | | | | | | | 8.80% | 1.01 |
| Low | | | | | | | | 4.48% | 0.86 |
| Selected | | | | | | | | 6.00% | 0.95 |

MONTANA DEPARTMENT OF REVENUE
Support of Stock Price - From YAHOO Finance
Telecommunications - Medium & Small
2024 Assessment Year

| | | End of Period Closing Stock Price | | | | | | | | | | | |
|--------|-------------------------|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| A | B | C | D | E | F | G | H | I | J | K | L | M | N |
| Ticker | Company | Jan. | Feb. | Mar. | Apr. | May. | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. |
| ATUS | Altice USA | 4.90 | 3.96 | 3.42 | 3.50 | 2.56 | 3.02 | 3.39 | 3.07 | 3.27 | 2.89 | 2.30 | 3.25 |
| CABO | Cable One | 789.88 | 690.61 | 702.00 | 758.41 | 611.83 | 657.08 | 723.94 | 650.57 | 615.64 | 549.87 | 532.08 | 556.59 |
| FYBR | Frontier Commun. Parent | 29.61 | 27.36 | 22.77 | 22.54 | 14.88 | 18.64 | 18.21 | 16.02 | 15.65 | 17.92 | 21.89 | 25.34 |
| GOGO | Gogo Inc. | 16.77 | 16.46 | 14.50 | 13.41 | 15.05 | 17.01 | 15.07 | 11.35 | 11.93 | 10.50 | 10.03 | 10.13 |
| SHEN | Shenandoah Telecom. | 19.55 | 19.52 | 19.02 | 20.81 | 18.98 | 19.43 | 18.67 | 22.74 | 20.61 | 23.66 | 22.27 | 21.62 |
| WOW | WideOpenWest Inc. | 11.49 | 10.93 | 10.63 | 11.43 | 7.60 | 8.44 | 8.24 | 8.10 | 7.65 | 7.04 | 4.00 | 4.05 |

