

PENDO ADVISORS, LLC

North American Industry Market Multiples – As of August 31, 2019

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Source: CapitalIQ

Median Values	Stock Price Multiples			Enterprise Value Multiples			EBITDA Margin		EBITDA Growth	
	LTM P/E	NTM P/E	PEG	LTM EBITDA	NTM EBITDA	LTM Revenue	3-yr avg.	LTM	3-yr CAGR	NTM
Energy	9.4x	12.7x	1.47x	6.1x	5.6x	2.03x	20.2%	21.0%	18.3%	2.9%
Coal	6.4x	10.5x	2.12x	5.3x	4.9x	1.55x	14.5%	11.0%	(3.4%)	(10.9%)
Equipment & Services	12.7x	18.6x	0.76x	6.8x	5.7x	0.92x	11.3%	12.1%	9.8%	(0.1%)
Integrated Oil & Gas	10.8x	13.8x	2.18x	6.1x	5.6x	1.46x	20.4%	18.2%	32.8%	(6.8%)
Oil & Gas Exploration / Production	6.7x	11.0x	1.14x	4.2x	4.0x	2.69x	41.4%	50.9%	37.4%	4.2%
Oil & Gas Refining / Marketing	15.3x	10.2x	0.86x	9.8x	7.2x	0.50x	6.7%	2.0%	3.3%	(10.8%)
Oil & Gas Storage / Transportation	13.8x	12.5x	2.43x	11.3x	9.8x	3.75x	30.6%	28.6%	12.1%	7.7%
Industrials	17.9x	15.2x	1.24x	10.9x	8.9x	1.35x	9.8%	9.1%	8.1%	7.7%
Aerospace & Defense	23.3x	16.8x	1.63x	13.4x	11.4x	1.85x	13.0%	11.4%	8.4%	12.8%
Building Products	17.6x	14.5x	1.31x	9.5x	7.9x	1.24x	10.5%	10.4%	8.8%	4.5%
Commercial & Professional Services	19.3x	17.9x	1.28x	11.9x	9.9x	1.44x	9.6%	7.9%	5.7%	9.4%
Construction & Engineering	17.2x	14.2x	1.10x	9.8x	6.9x	0.72x	5.7%	6.2%	12.6%	11.1%
Machinery	18.6x	15.0x	1.19x	11.3x	9.4x	1.50x	11.8%	12.5%	9.1%	6.0%
Transportation	15.5x	12.9x	1.01x	7.9x	6.6x	1.29x	15.3%	13.1%	5.6%	5.7%
Materials	17.1x	13.8x	1.53x	8.6x	7.3x	1.98x	13.3%	13.0%	7.5%	2.4%
Chemicals	17.9x	12.4x	1.59x	9.4x	8.2x	1.99x	13.8%	12.9%	3.7%	0.2%
Construction Materials	20.6x	24.0x	1.50x	9.7x	9.5x	1.67x	19.8%	21.5%	6.2%	11.3%
Containers & Packaging	18.4x	13.8x	1.85x	9.6x	8.4x	1.34x	14.3%	14.1%	8.1%	6.3%
Metals & Mining	14.4x	13.8x	1.32x	7.8x	6.1x	2.60x	11.8%	11.7%	13.4%	4.8%
Paper & Forest Products	16.7x	15.5x	0.74x	7.9x	7.6x	0.95x	10.2%	11.1%	3.6%	(17.1%)
Consumer Discretionary	17.4x	14.4x	1.25x	10.8x	9.6x	1.20x	10.3%	8.6%	3.4%	3.6%
Automobile Manufacturers	13.1x	7.8x	0.54x	9.6x	6.3x	1.03x	9.1%	9.2%	(0.4%)	(0.2%)
Auto Parts & Equipment	10.3x	7.6x	1.13x	5.6x	5.1x	0.68x	10.1%	10.1%	4.3%	(5.3%)
Consumer Durables & Apparel	15.2x	12.3x	0.98x	10.8x	8.9x	1.04x	9.4%	7.8%	4.5%	7.5%
Hotels, Restaurants & Leisure	22.0x	19.2x	1.93x	11.5x	10.4x	2.44x	17.6%	16.4%	6.5%	3.8%
Media	13.1x	13.9x	1.22x	8.9x	7.9x	1.96x	19.4%	16.8%	4.1%	3.1%
Retailing	14.8x	13.6x	1.25x	10.5x	10.0x	0.86x	8.6%	6.0%	0.5%	2.8%
Consumer Staples	23.3x	20.6x	2.55x	13.0x	11.8x	1.81x	7.8%	5.6%	2.1%	5.2%
Beverages	26.5x	25.1x	2.06x	15.8x	15.9x	2.87x	12.3%	11.8%	7.5%	5.1%
Food Products	25.0x	20.1x	2.76x	14.2x	12.2x	1.61x	8.4%	7.6%	(0.0%)	3.0%
Food & Staples Retailing	21.3x	17.6x	2.35x	11.7x	10.8x	0.70x	4.9%	4.3%	0.9%	7.3%
Household & Personal Products	26.3x	23.7x	2.59x	12.3x	13.5x	3.10x	10.4%	5.2%	3.3%	4.4%
Healthcare	29.0x	23.8x	1.77x	15.8x	14.7x	6.13x	1.4%	(5.4%)	7.8%	8.5%
Biotechnology	19.0x	17.2x	1.01x	9.1x	15.2x	11.40x	(51.8%)	(47.7%)	12.6%	15.7%
Healthcare Equipment & Supplies	48.7x	30.9x	2.18x	22.4x	19.0x	4.94x	(2.7%)	1.3%	11.3%	8.6%
Healthcare Services	23.7x	23.4x	1.64x	13.2x	11.1x	2.03x	7.0%	4.7%	6.6%	14.3%
Pharmaceuticals	16.3x	17.1x	1.61x	9.9x	11.6x	10.60x	(1.7%)	(41.7%)	4.1%	12.5%
Information Technology	27.7x	21.4x	1.52x	14.5x	12.4x	2.63x	5.0%	4.2%	10.7%	6.7%
Communications Equipment	26.3x	19.5x	1.53x	13.7x	9.3x	1.24x	4.5%	3.2%	2.4%	10.1%
Hardware, Storage & Peripherals	18.2x	12.6x	1.06x	10.5x	7.5x	1.21x	5.9%	4.6%	2.4%	3.8%
Internet Software & Services	38.3x	26.6x	1.82x	17.6x	16.4x	4.21x	2.0%	1.2%	11.4%	11.5%
IT Services	32.2x	20.4x	1.80x	15.0x	11.8x	2.52x	10.0%	8.4%	8.0%	8.0%
Semiconductors	34.4x	22.4x	1.50x	19.2x	15.6x	3.81x	13.7%	9.2%	13.0%	(9.8%)
Software	45.8x	34.2x	1.86x	27.5x	22.5x	5.51x	(7.2%)	(5.7%)	12.8%	14.5%
Technology Hardware & Equipment	20.8x	17.6x	1.23x	11.6x	9.1x	1.22x	4.9%	4.4%	6.9%	7.2%
Telecommunications	19.3x	16.8x	1.13x	10.2x	8.9x	2.44x	15.4%	10.9%	4.7%	4.5%
Alternative Carriers	70.7x	46.2x	0.81x	18.6x	13.9x	4.70x	12.9%	11.5%	7.0%	4.9%
Integrated Telecommunication Services	14.8x	15.7x	2.15x	6.6x	7.7x	2.02x	25.9%	24.4%	2.5%	6.0%
Wireless Telecommunication Services	20.5x	25.9x	1.92x	8.8x	7.7x	1.83x	20.8%	19.8%	11.8%	0.2%
Utilities	22.7x	21.6x	3.79x	13.5x	12.0x	4.62x	31.0%	32.2%	4.0%	7.8%
Electric Utilities	22.6x	21.5x	3.80x	13.3x	11.8x	4.55x	30.7%	32.7%	3.1%	7.4%
Gas Utilities	23.7x	21.6x	3.82x	11.9x	12.8x	3.17x	24.1%	21.1%	5.7%	6.1%
Water Utilities	39.5x	33.0x	4.46x	20.0x	16.7x	8.76x	41.1%	37.6%	1.8%	8.7%
	Price / Earnings Multiples			Price / BV Multiples			Net Income Margin		Return on Equity	
	LTM P/E	NTM P/E	PEG	Book Value		Tangible BV	3-yr avg.	LTM	3-yr avg.	LTM
Financials	12.6x	11.3x	1.29x		1.15x	1.28x	18.4%	24.1%	8.2%	9.6%
Commercial Banks	9.9x	9.6x	1.86x		1.31x	1.67x	27.4%	29.9%	13.0%	12.4%
Investment Banking & Brokerage	12.3x	10.5x	1.35x		1.68x	1.93x	5.4%	7.4%	7.3%	9.9%
Insurance	15.0x	12.0x	1.26x		1.23x	1.37x	7.1%	5.9%	8.8%	7.7%

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PENDO ADVISORS, LLC

Year-Over-Year Trend Analysis: August 2018 to August 2019

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Stock Price / LTM EPS: August 2018 to August 2019

	Year-Over-Year		Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19
	Delta	% Delta													
Energy	(6.8x)	(42.0%)	16.2x	16.2x	14.1x	12.8x	10.7x	11.6x	12.9x	12.8x	13.0x	12.4x	12.8x	12.5x	9.4x
Industrials	(3.4x)	(16.0%)	21.3x	20.9x	17.5x	17.3x	15.7x	17.8x	19.0x	18.7x	19.5x	17.4x	18.5x	18.4x	17.9x
Materials	1.4x	8.9%	15.7x	15.4x	14.0x	13.0x	12.6x	14.4x	16.1x	16.2x	16.8x	15.9x	17.2x	17.1x	17.1x
Consumer Discretionary	(1.5x)	(7.9%)	18.9x	19.1x	17.4x	16.9x	14.8x	16.6x	17.4x	17.2x	18.7x	17.2x	17.6x	18.3x	17.4x
Consumer Staples	2.8x	13.7%	20.5x	21.0x	20.5x	20.9x	19.5x	20.1x	21.6x	23.6x	24.1x	22.8x	23.6x	24.1x	23.3x
Healthcare	(0.8x)	(2.7%)	29.8x	31.3x	28.9x	31.9x	26.9x	29.4x	28.3x	28.9x	28.1x	30.0x	30.7x	30.9x	29.0x
Information Technology	(4.2x)	(13.2%)	31.9x	30.1x	27.7x	27.6x	25.7x	26.2x	26.4x	27.6x	29.6x	26.2x	27.5x	28.5x	27.7x
Telecommunications	3.7x	23.7%	15.6x	15.8x	15.7x	15.4x	14.0x	15.6x	18.2x	19.6x	20.6x	21.2x	20.4x	19.0x	19.3x
Utilities	1.0x	4.6%	21.7x	21.9x	21.0x	20.5x	19.6x	20.1x	22.0x	22.7x	22.5x	21.5x	22.4x	22.7x	22.7x
Financials	(5.3x)	(29.6%)	17.9x	17.6x	15.6x	15.4x	14.0x	13.4x	13.7x	13.2x	13.2x	12.8x	13.0x	13.1x	12.6x

Stock Price / NTM EPS: August 2018 to August 2019

	Year-Over-Year		Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19
	Delta	% Delta													
Energy	(2.5x)	(16.4%)	15.2x	15.2x	13.6x	12.4x	11.4x	14.5x	15.1x	15.0x	14.7x	12.2x	12.3x	12.3x	12.7x
Industrials	(2.5x)	(14.1%)	17.7x	17.8x	15.2x	15.4x	13.4x	14.9x	15.9x	15.4x	15.9x	14.7x	15.9x	16.1x	15.2x
Materials	0.4x	3.0%	13.4x	13.1x	12.1x	12.0x	11.3x	13.2x	14.0x	13.4x	13.5x	12.0x	14.2x	14.4x	13.8x
Consumer Discretionary	(2.6x)	(15.3%)	17.0x	17.2x	15.3x	15.2x	13.9x	14.9x	16.3x	15.9x	16.5x	15.0x	15.3x	15.5x	14.4x
Consumer Staples	(0.2x)	(1.0%)	20.8x	20.2x	20.0x	20.4x	18.8x	20.5x	19.3x	20.0x	20.4x	20.7x	21.8x	21.7x	20.6x
Healthcare	(0.1x)	(0.4%)	23.9x	23.9x	21.8x	23.5x	21.9x	23.4x	24.4x	24.0x	23.6x	24.8x	25.1x	25.7x	23.8x
Information Technology	(1.5x)	(6.6%)	22.9x	21.8x	19.3x	19.7x	18.2x	19.5x	22.3x	22.8x	23.8x	21.3x	22.2x	22.2x	21.4x
Telecommunications	(12.8x)	(43.2%)	29.6x	19.4x	18.0x	17.9x	16.7x	18.1x	17.0x	18.0x	18.7x	17.7x	17.9x	17.8x	16.8x
Utilities	2.7x	14.3%	18.9x	18.7x	19.0x	19.1x	18.5x	19.3x	20.1x	20.8x	20.8x	19.6x	20.9x	21.4x	21.6x
Financials	(2.5x)	(18.1%)	13.8x	13.3x	12.0x	12.2x	10.6x	11.6x	12.1x	11.4x	11.7x	11.2x	11.6x	11.8x	11.3x

Enterprise Value / LTM EBITDA: August 2018 to August 2019

	Year-Over-Year		Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19
	Delta	% Delta													
Energy	(4.0x)	(39.8%)	10.1x	10.2x	9.0x	8.1x	7.1x	7.6x	7.6x	6.9x	6.8x	6.9x	7.1x	6.9x	6.1x
Industrials	(1.0x)	(8.4%)	11.9x	11.8x	10.6x	10.5x	9.7x	10.4x	10.7x	10.6x	11.0x	10.7x	11.4x	11.5x	10.9x
Materials	(0.1x)	(1.5%)	8.7x	8.8x	7.8x	7.5x	7.1x	7.9x	8.1x	8.3x	8.5x	7.9x	8.4x	8.8x	8.6x
Consumer Discretionary	0.4x	3.8%	10.4x	10.5x	9.9x	9.9x	8.9x	9.5x	9.6x	9.8x	10.1x	10.5x	11.2x	11.3x	10.8x
Consumer Staples	0.4x	3.2%	12.6x	12.2x	12.2x	12.2x	11.6x	12.2x	12.7x	12.5x	12.1x	12.6x	12.8x	13.1x	13.0x
Healthcare	(0.6x)	(3.7%)	16.4x	16.6x	15.5x	16.3x	14.3x	15.2x	15.6x	15.7x	16.1x	16.2x	15.5x	15.1x	15.8x
Information Technology	(2.4x)	(14.2%)	16.9x	15.6x	14.2x	14.1x	12.8x	13.5x	15.1x	14.5x	15.6x	14.4x	14.9x	15.2x	14.5x
Telecommunications	1.6x	19.2%	8.6x	10.1x	9.8x	9.8x	9.0x	9.7x	9.5x	9.8x	10.0x	10.3x	10.6x	11.1x	10.2x
Utilities	1.8x	15.4%	11.7x	11.6x	11.7x	11.8x	11.6x	12.0x	12.6x	12.8x	12.8x	12.4x	13.0x	13.2x	13.5x

Enterprise Value / NTM EBITDA: August 2018 to August 2019

	Year-Over-Year		Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19
	Delta	% Delta													
Energy	(1.3x)	(18.3%)	6.8x	6.8x	6.1x	5.9x	5.4x	6.2x	6.5x	6.3x	6.2x	5.8x	5.9x	5.9x	5.6x
Industrials	(1.0x)	(10.0%)	9.9x	10.0x	8.9x	8.9x	8.1x	8.6x	9.1x	8.9x	9.2x	9.1x	9.5x	9.4x	8.9x
Materials	0.2x	3.3%	7.0x	6.9x	6.7x	6.4x	6.3x	6.9x	7.4x	7.0x	7.0x	6.8x	7.5x	7.7x	7.3x
Consumer Discretionary	0.5x	5.7%	9.1x	9.1x	8.4x	8.6x	7.7x	8.4x	8.5x	8.5x	9.0x	9.3x	9.8x	9.9x	9.6x
Consumer Staples	(0.5x)	(4.1%)	12.3x	12.3x	11.8x	11.4x	10.5x	11.2x	11.5x	11.7x	11.9x	11.8x	12.0x	12.0x	11.8x
Healthcare	(0.3x)	(2.0%)	15.0x	14.9x	13.7x	14.1x	13.0x	14.1x	14.4x	14.7x	15.1x	13.8x	15.4x	15.4x	14.7x
Information Technology	(1.5x)	(10.8%)	13.9x	13.0x	11.6x	11.6x	10.5x	11.4x	12.7x	12.6x	13.0x	12.4x	12.9x	12.9x	12.4x
Telecommunications	1.1x	14.3%	7.8x	9.5x	9.0x	9.0x	8.1x	9.1x	9.4x	9.4x	9.8x	9.7x	9.6x	9.6x	8.9x
Utilities	1.5x	14.3%	10.5x	10.8x	10.8x	10.8x	10.5x	10.6x	11.0x	11.7x	11.6x	11.4x	11.8x	12.3x	12.0x

Enterprise Value / LTM Revenue: August 2018 to August 2019

	Year-Over-Year		Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19
	Delta	% Delta													
Energy	(1.09x)	(34.9%)	3.12x	3.11x	2.79x	2.57x	2.24x	2.42x	2.42x	2.42x	2.45x	2.28x	2.22x	2.17x	2.03x
Industrials	(0.15x)	(10.0%)	1.50x	1.48x	1.34x	1.34x	1.21x	1.29x	1.35x	1.28x	1.34x	1.29x	1.36x	1.40x	1.35x
Materials	0.10x	5.3%	1.88x	1.84x	1.60x	1.61x	1.62x	1.74x	1.77x	1.78x	1.75x	1.67x	1.83x	2.00x	1.98x
Consumer Discretionary	(0.25x)	(17.2%)	1.45x	1.26x	1.18x	1.21x	1.10x	1.21x	1.14x	1.15x	1.18x	1.28x	1.31x	1.29x	1.20x
Consumer Staples	0.05x	2.8%	1.76x	1.92x	2.05x	2.01x	1.88x	1.96x	1.90x	1.97x	1.91x	1.95x	1.89x	1.99x	1.81x
Healthcare	(0.26x)	(4.1%)	6.39x	6.26x	5.80x	5.96x	5.40x	5.95x	6.32x	6.37x	6.39x	6.39x	6.76x	6.55x	6.13x
Information Technology	(0.23x)	(8.0%)	2.86x	2.59x	2.38x	2.32x	2.12x	2.31x	2.53x	2.45x	2.66x	2.53x	2.63x	2.62x	2.63x
Telecommunications	(0.16x)	(6.2%)	2.60x	2.70x	2.67x	2.57x	2.25x	2.47x	2.53x	2.63x	2.65x	2.77x	2.58x	2.55x	2.44x
Utilities	0.57x	14.1%	4.05x	3.99x	4.11x	4.06x	3.96x	4.22x	4.31x	4.36x	4.28x	4.22x	4.46x	4.44x	4.62x

Merger & Acquisition Advisory
Fairness & Solvency Opinions

Private Placements
Restructuring Advisory

Business & Asset Valuation
ESOP / ERISA Advisory