Industry Average Betas* Value Line Investment Survey Betas** 6-Jul-20

Rank	Industry	Beta	Rank	Industry	Beta	Rank	Industry	Beta
1	Homebuilding	1.49	34	Recreation	1.17	67	Publishing	1.03
2	Oilfield Svcs/Equip.	1.43	35	Diversified Co.	1.16	68	Insurance (Prop/Cas.)	1.02
3	Insurance (Life)	1.43	36	Electrical Equipment	1.15	69	Med Supp Non-Invasive	1.01
4	Hotel/Gaming	1.38	37	Electronics	1.14	70	Human Resources	1.01
5	Petroleum (Integrated)	1.38	38	Restaurant	1.14	71	Telecom. Equipment	1.01
6	Petroleum (Producing)	1.37	39	Computers/Peripherals	1.14	72	Investment Co.(Foreign)	1.00
7	Metal Fabricating	1.33	40	Bank (Midwest)	1.14	73	Investment Co.	1.00
8	Metals & Mining (Div.)	1.32	41	Bank	1.13	74	Computer Software	1.00
9	Natural Gas (Div.)	1.32	42	Automotive	1.13	75	Biotechnology	0.99
10	Building Materials	1.31	43	Retail (Softlines)	1.12	76	E-Commerce	0.99
11	Advertising	1.31	44	Reinsurance	1.11	77	Cable TV	0.96
12	Shoe	1.31	45	Railroad	1.11	78	Trucking	0.95
13	Maritime	1.28	46	Heavy Truck & Equip	1.11	79	Thrift	0.95
14	Steel	1.28	47	Semiconductor Equip	1.10	80	Tobacco	0.94
15	Apparel	1.28	48	R.E.I.T.	1.10	81	Foreign Electronics	0.94
16	Oil/Gas Distribution	1.28	49	Industrial Services	1.10	82	Telecom. Utility	0.93
17	Air Transport	1.27	50	Power	1.10	83	Environmental	0.93
18	Pipeline MLPs	1.27	51	Precision Instrument	1.09	84	Healthcare Information	0.92
19	Public/Private Equity	1.26	52	Wireless Networking	1.09	85	Beverage	0.89
20	Aerospace/Defense	1.26	53	Toiletries/Cosmetics	1.09	86	Telecom. Services	0.88
21	Retail Automotive	1.26	54	Internet	1.08	87	Electric Util. (Central)	0.88
22	Office Equip/Supplies	1.24	55	Semiconductor	1.07	88	Electric Utility (East)	0.87
23	Retail (Hardlines)	1.23	56	Retail Building Supply	1.07	89	Natural Gas Utility	0.85
24	Financial Svcs. (Div.)	1.22	57	Newspaper	1.07	90	Electric Utility (West)	0.85
25	Auto Parts	1.22	58	Packaging & Container	1.06	91	Entertainment Tech	0.84
26	Paper/Forest Products	1.22	59	Retail Store	1.05	92	Household Products	0.82
27	Chemical (Diversified)	1.21	60	Med Supp Invasive	1.05	93	Retail/Wholesale Food	0.79
28	Furn/Home Furnishings	1.21	61	Educational Services	1.05	94	Water Utility	0.78
29	Chemical (Specialty)	1.20	62	Information Services	1.04	95	Food Processing	0.77
30	Medical Services	1.20	63	Entertainment	1.04	96	Pharmacy Services	0.73
31	Chemical (Basic)	1.18	64	Funeral Services	1.04	97	Precious Metals	0.70
32	Engineering & Const	1.18	65	IT Services	1.03			
33	Machinery	1.17	66	Drug	1.03		Mean	1.10
	my avarages for 07 industries			-				

* Industry averages for 97 industries using *Value Line*'s database of 1,704 companies - Updated 7-6-20.

** *Value Line* computes betas using monthly returns regressed against the New York Stock Exchange Index for five years. These betas are then adjusted as follows: *VL* Beta = [{(2/3) * Regressed Beta} + {(1/3) * (1.0)}] to account to tendency

for Betas to regress toward average of 1.0. See M. Blume, "On the Assessment of Risk," Journal of Finance, March 1971.