

COVID-19 and Size/Style Investing

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- Study Objective
 - Analyze the returns for a number of size/style stock indexes during the initial decline and rebound periods for the COVID-19 Pandemic

- Willshire Size/Style Indexes
 - US Large Cap Growth
 - US Small Cap Growth
 - US Large Cap
 - US Small Cap
 - US Large Cap Value
 - US Small Cap Value

- Index Weighting Strategy
 - Market Value Weighted
 - Price Weighted

- Performance Tests – COVID-19 Downswing/Rebound Phase
 1. Determine which size portfolio outperforms
 2. Determine which growth/value portfolio outperforms
 3. Determine which weighting index outperforms

1. To determine dollars invested and shares held in each Willshire Index I developed a factor weight for each index
2. The factor weight was determined by doing time trend regressions on the Willshire Price and Total Market Indexes for two time periods:
 1. The market downswing period: 2/19/2020 – 3/23/2020
 2. The market upswing period: 3/23/2020 – 9/1/2020
3. The ratio of the upswing regression B coefficients to the downswing regression B coefficients became my factor weights
4. The dollars invested in each Willshire Index was found by multiplying the factor weights times \$1,000,000. The higher the weight, the more dollars invested
5. The shares held in each Willshire Index was found by dividing the dollars invested by the price
6. The shares held in each Willshire Index did not change over the period of analysis

Cumulative Returns Analysis (Market Value Weighted)

Market Value	\$ Invested	3/31/2020	12/31/2020	3/30/2021	Return	Ranking
W LCG	\$ 242,702.78	\$ 184,917.19	\$ 302,037.91	\$ 304,270.69	25%	4
W SMLG	\$ 174,204.19	\$ 120,061.97	\$ 216,671.34	\$ 232,715.50	34%	1
W LC	\$ 191,126.05	\$ 145,429.04	\$ 219,377.69	\$ 230,988.99	21%	5
W SML	\$ 144,677.22	\$ 97,456.33	\$ 166,810.22	\$ 187,984.91	30%	2
W LCV	\$ 132,018.38	\$ 100,299.19	\$ 138,242.93	\$ 152,497.56	16%	6
W SMLV	\$ 115,271.37	\$ 75,891.08	\$ 122,926.89	\$ 145,236.69	26%	3

Cumulative Returns Analysis (Price Weighted)

Price	\$ Invested	3/31/2020	12/31/2020	3/30/2021	Return	Ranking
W 5000P LCG	\$ 208,155.20	\$ 158,387.85	\$ 257,359.14	\$ 258,897.91	24%	4
W 5000 SCG	\$ 150,158.18	\$ 103,402.07	\$ 185,019.36	\$ 198,436.87	32%	2
W 5000 LC	\$ 160,735.21	\$ 122,011.27	\$ 181,609.96	\$ 190,537.70	19%	5
W 5000 SML	\$ 122,468.38	\$ 82,222.99	\$ 138,705.39	\$ 155,838.48	27%	3
W 5000 LCV	\$ 106,661.58	\$ 80,751.31	\$ 108,817.84	\$ 119,231.58	12%	6
W 5000 SMLV	\$ 106,661.58	\$ 125,899.75	\$ 199,933.05	\$ 235,130.94	120%	1