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**PRVit Factor Report – U.S.**
August 2, 2022

PRVit Factor Report – U.S.

July Results

Investors looked to reward high Profitability (P) companies in the Large Cap universe (+144bps). In Small Cap, only the Profitability Trend (P2) factor was positive as the market rewarded companies that showed growth in Economic Value Added (EVA). Risk and Valuation both struggled in both spaces as investors bid up high-Risk names over low-Risk names by 438bps in Large Cap and 576bps in Small Cap, the 17th and 14th worst months for our Risk metric since 1998. Rate hike assumptions had been driving up cheap Value names, but June and July have both been driven by more expensive names.

Figure 1: Factor Performance
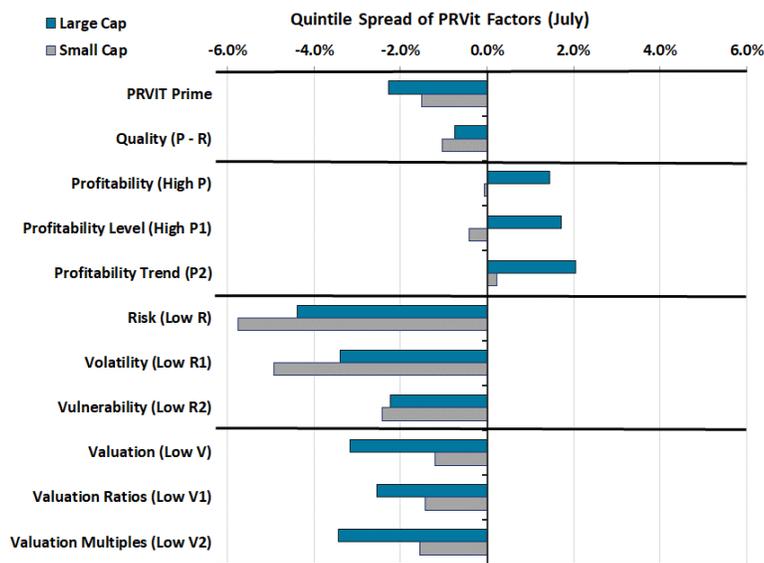
Sector Attractiveness

Overall, Small Cap (PRVit = 53) looks more attractive than Large Cap (PRVit = 48). Financials continue to be the most attractive sector in both spaces. Small Cap Industrials are more attractive than Large Cap Industrials. Large Cap Health Care looks more favorable than Small Cap Health Care (Pharmaceuticals, Biotech, and Life Sciences with Market Cap < $10B have been removed from both lists). A PRVit score above the average is favorable.

Figure 2: Sector Attractiveness

U.S. Large Cap	PRVit	Quality	Value	U.S. Small Cap	PRVit	Quality	Value
Financials	65	67	50	Financials	70	61	36
Materials	54	61	55	Consumer Discretionary	59	52	40
Consumer Staples	49	59	60	Materials	58	48	37
Communication Services	47	52	56	Industrials	54	49	45
Industrials	46	59	63	Consumer Staples	53	51	48
Consumer Discretionary	46	57	61	Communication Services	45	37	40
Health Care	45	60	67	Energy	42	28	32
Energy	44	38	42	Information Technology	41	42	55
Utilities	41	42	50	Utilities	37	44	57
Information Technology	39	56	74	Health Care	30	33	58
U.S. Large Cap	48	58	61	U.S. Small Cap	53	48	44

See our Sector Attractiveness: U.S. Analysis report for more details on the effectiveness of PRVit in identifying favorable sectors.

Contents

Our monthly PRVit Reports summarize the performance of our PRVit stock selection model as well as its underlying factors: Profitability (P), Risk (R), and Value (V). We analyze the results by regions, by sectors, and by market cap size.

Key Takeaways:
- Profitability (P) was the only positive factor in Large Cap.
- High-Risk names outperformed for the first time in nine months in Large Cap.
- Our zone results were mixed in both Large and Small Cap.

Methodology:

The top-bottom spread ("**spread**") is the difference between the average return of the top 20% and the bottom 20% of stocks ranked by a factor. The information coefficient ("**IC**") is the cross-sectional correlation between the factor ranks and future returns. In other words, the top quintile should outperform the 2nd quintile, the 2nd quintile should outperform the 3rd quintile, etc. An IC around 5% indicates a very monotonic result.

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Factor Rotation: Daily Performance over Trailing 24 Months

The Large Cap and Small Cap daily factor performances over the last two years are included below. Note these graphs are based on daily re-balancing of factors (versus the monthly re-balancing used in all other analysis). The 'equal-weighted universe' lines are included to show market direction. When the colored (Quality=blue, Value=orange) factor lines are moving up, they are generating alpha, and when they are over the '0' line of the y-axis, they have had positive cumulative alpha.

Figure 3: Large Cap
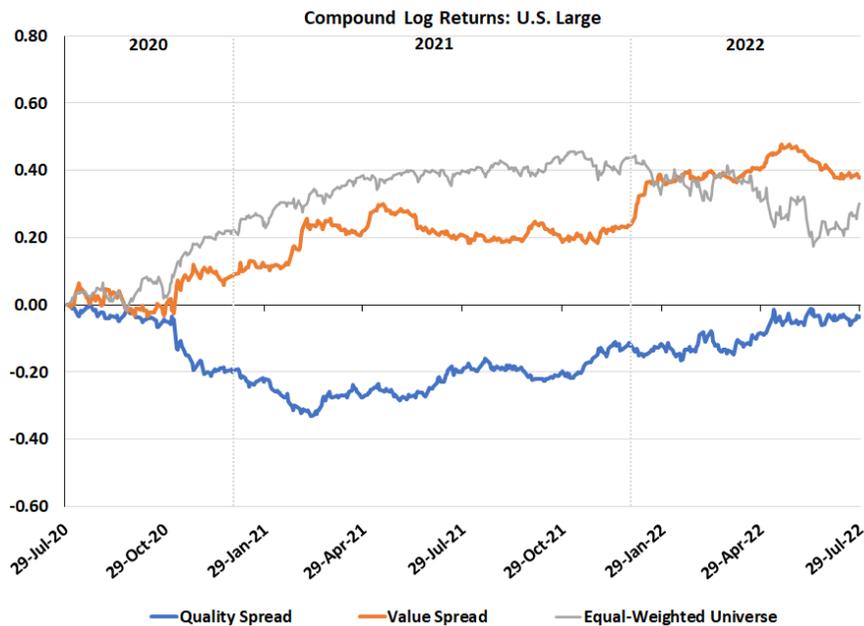
Large Cap

Value slid throughout June and into early July until plateauing for the final 3 weeks of the month. Quality has been range-bound as investors looked for good Profitability (P) but added to Risk (R) positions (P worked, R did not work, Quality is Risk-adjusted Profitability).

Figure 4: Small Cap
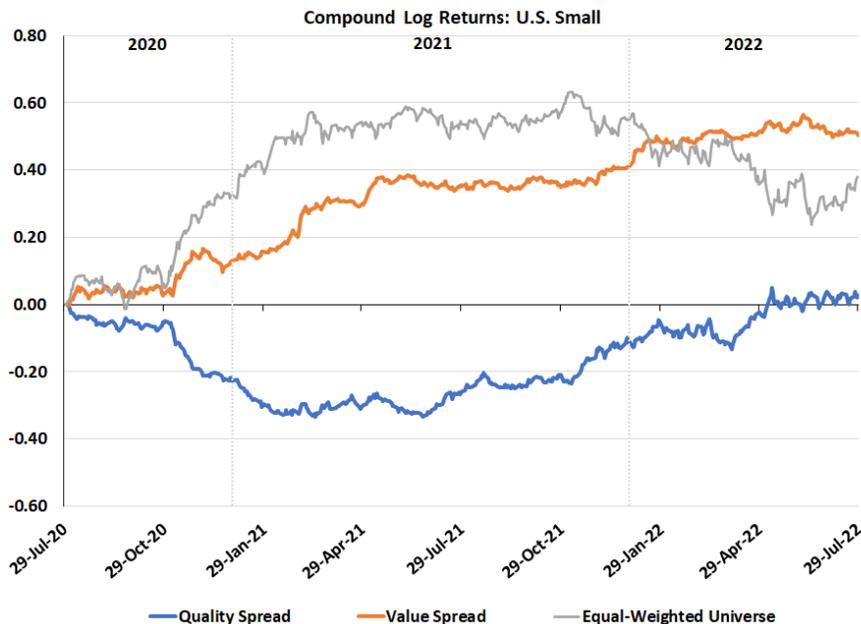
Small Cap

Cheap Value worked a little longer than Large Cap (mid-June) but then rolled over in the latter half of June and into early July. A slight recovery in the second and third weeks of the month were not sufficient to push Value up for the month. Quality has been trading mostly sideways. Investors took on more Risk and did not favor high Profitability names as they did in the Large Cap space.

HEAT MAP: Examining the Zones

Our HEAT Map captures the key factors that constitute PRVit: the trade-off between Quality and Valuation. Our Quality score is plotted on the y-axis where the higher the value, the better the quality. Our Valuation factor is plotted on the x-axis where the cheaper values are to the right and the expensive values are to the left. The green areas are in the 'Favorable' region: the upper left one is our 'Expensive But Worth It' category, where PRVit > 70, Quality > 60, and Valuation > 60; while the lower-right one is our 'Attractive Value' category, where PRVit > 70, Quality < 40, and Valuation < 40. Our 'Best of Best' green box is PRVit > 70, Quality > 60, and Valuation < 40: these companies have the largest disconnect between their Quality and Valuation. The red areas are in the 'Unfavorable' region: the upper-left one is our 'Overly Expensive Quality,' where PRVit < 30, Quality > 60, and Valuation > 60; while the lower-right one is our 'Value Traps,' where PRVit < 30, Quality < 40, and Valuation < 40. And, of course, we highlight the 'Worst of Worst' in the red box, where PRVit < 30, Quality < 40, and Valuation > 60: we sometimes refer to these as 'Story Stocks' because if you own these, you better have a good story (See Figure 5).

Figure 5: HEAT Map Zones
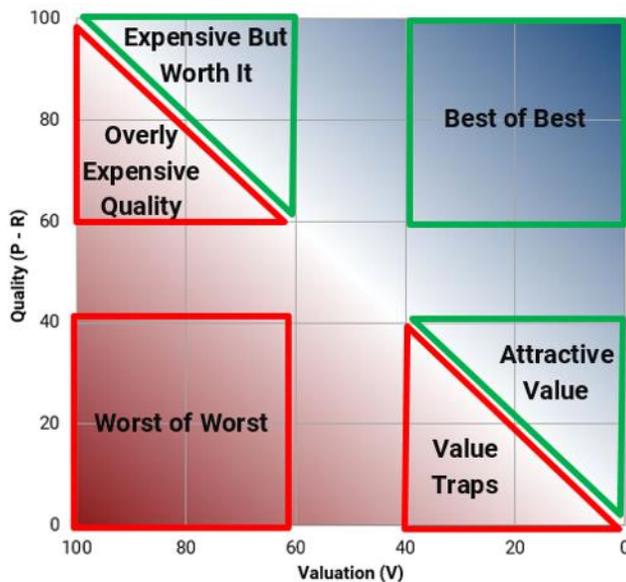
HEAT Map Primer

The beauty of the HEAT map is the visual trade-off between **Quality** and **Valuation**: companies in the favorable (blue) area offer higher quality and/or cheaper valuation than those in the unfavorable (red) area.

The y-axis is our measure of **Quality**, where the higher the score, the higher the company's quality or Risk-Adjusted Profitability is. This is a composite score including Level and Trend of Profitability (P1 and P2) as well as Volatility and Vulnerability (R1 and R2).

The x-axis is our measure of **Valuation,** which includes Wealth Ratios and Wealth Multiples (V1 and V2). This axis is plotted in reverse, so the most expensive stocks (highest V scores) are to the left and the cheapest V scores are plotted to the right.

The upper left area tends to contain growth names while the bottom right area tends to be the value plays.

Zones: Current Analysis

In **Figure 6**, we summarize the performance of these zones for the Large Cap and Small Cap universes across various time slices. In Small Cap, **Overly Expensive Quality** and the **Value Trap** zones had the strongest performance while **Best of the Best** and **Worst of the Worst** also generated alpha. In Large Cap, the **Value Trap** and **Worst of the Worst** had the best performance as investors focused on cheap Value and adding Risk (lower Quality). Over the long term ('Since May '98'), the **Best of the Best**, **Expensive But Worth It**, and **Attractive Value** zones outperform the universe and their unfavorable zone counterparts in both Large and Small Cap.

Figure 6: Zone Alpha

Avg Monthly Spread vs Benchmark	1M		3M		1Y		3Y		5Y		10Y		Since May'98	
Zones	Large	Small	Large	Small	Large	Small	Large	Small	Large	Small	Large	Small	Large	Small
Best of the Best	-1.24%	0.83%	-0.55%	1.14%	0.86%	1.21%	0.18%	0.19%	-0.06%	0.17%	0.09%	0.25%	0.20%	0.57%
Expensive But Worth It	-0.63%	-0.81%	1.14%	1.13%	0.25%	0.55%	0.16%	-0.48%	0.17%	-0.19%	0.17%	-0.06%	0.28%	0.20%
Overly Expensive Quality	-0.17%	2.19%	0.91%	0.29%	0.72%	0.78%	-0.13%	-0.06%	0.05%	0.08%	-0.16%	0.05%	-0.07%	-0.36%
Attractive Value	-2.37%	0.95%	-1.87%	0.83%	-0.33%	0.95%	-0.45%	1.05%	-0.54%	0.42%	-0.12%	0.42%	0.21%	0.51%
Value Trap	1.92%	1.60%	-0.21%	-1.50%	-0.53%	-0.86%	0.55%	0.35%	0.26%	0.15%	0.10%	-0.02%	0.05%	-0.23%
Worst of the Worst	1.28%	1.54%	-0.63%	0.38%	-1.18%	-1.55%	-0.37%	-0.67%	-0.16%	-0.26%	-0.16%	-0.41%	-0.34%	-0.71%

In **Figures 7 & 8** (next page), we plot the long-term returns of these zones for Large and Small Cap.

Long-Term HEAT Zone Performance

The graphs below show compounded performance of our zones versus the equal-weighted average of each universe (**Best of the Best**, **Expensive But Worth It**, **Overly Expensive Quality**, **Attractive Value**, **Value Trap,** and **Worst of the Worst**). See the explanation of zones on the previous page.

Figure 7: Long-Term Zone Performance – Large Cap

Cumulative Performance of Heat Zones: Large Cap
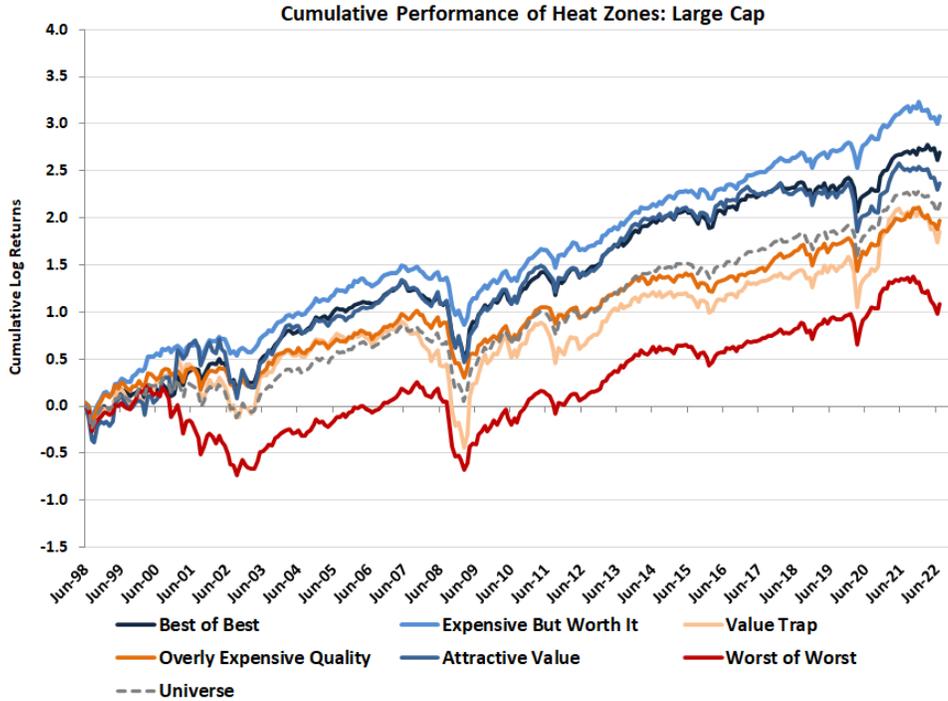
Figure 8: Long-Term Zone Performance – Small Cap

Cumulative Performance of Heat Zones: Small Cap

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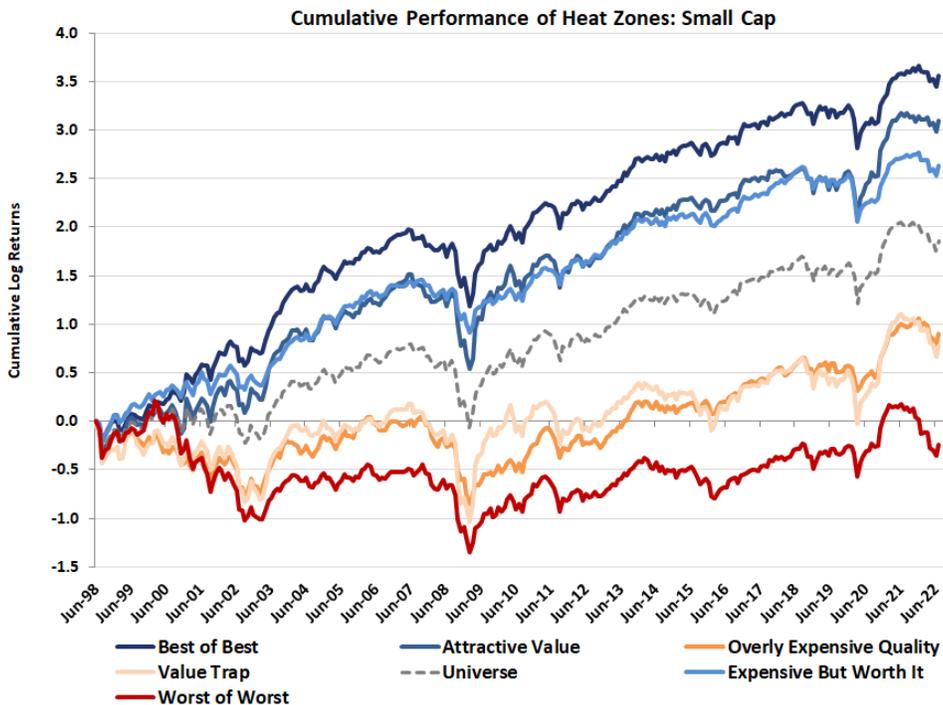
PRVit Performance and Factor Returns

Figures 9-11 show the performance of the PRVit model in different market cap ranges. The top-bottom spread ("**spread**") is the difference between the average return of the top 20% and the bottom 20% of stocks ranked by a factor. The information coefficient ("**IC**") is the cross-sectional correlation between the factor ranks and future returns. In other words, the top quintile should outperform the 2nd quintile, the 2nd quintile should outperform the 3rd quintile, etc. An IC around 5% indicates a very monotonic result.

The '1M' columns in **Figure 10** and **Figure 11** match the data provided in **Figure 1** on page 1.

Figure 9: All Cap

U.S. All Cap	1M		3M		1Y		3Y		5Y		10Y		Since May'98	
Industry Scores	IC	Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread
Profitability (High P)	3.3%	0.15%	4.9%	1.43%	5.8%	1.78%	2.5%	0.02%	2.8%	0.20%	2.6%	0.38%	2.8%	0.43%
Profitability Level (High P1)	2.5%	-0.08%	5.6%	1.73%	6.1%	1.80%	2.9%	0.13%	3.3%	0.29%	2.7%	0.34%	2.7%	0.41%
Profitability Trend (High P2)	5.3%	0.77%	3.4%	1.24%	3.8%	1.32%	1.3%	0.06%	1.5%	0.14%	1.9%	0.34%	2.1%	0.40%
Risk (Low R)	-12.2%	-5.11%	3.7%	0.63%	6.8%	1.60%	1.3%	-0.48%	1.8%	-0.13%	1.6%	0.11%	2.4%	0.44%
Volatility (Low R1)	-13.7%	-4.25%	6.4%	1.82%	7.1%	1.92%	1.7%	-0.60%	2.6%	-0.07%	2.4%	0.14%	2.7%	0.27%
Vulnerability (Low R2)	-6.3%	-2.28%	-0.1%	-0.12%	3.4%	0.77%	0.1%	-0.24%	0.0%	-0.14%	0.1%	0.00%	1.1%	0.38%
Quality (High P - R)	-1.5%	-1.20%	5.6%	1.91%	7.2%	2.18%	2.4%	-0.23%	2.9%	0.12%	2.7%	0.34%	3.2%	0.52%
Valuation (Low V)	-4.3%	-1.07%	-3.4%	-0.67%	1.6%	0.81%	1.4%	1.00%	-0.8%	0.22%	0.0%	0.28%	0.6%	0.65%
Valuation Ratios (Low V1)	-4.3%	-1.22%	-3.9%	-0.82%	0.7%	0.51%	1.1%	1.01%	-1.0%	0.21%	-0.3%	0.22%	0.1%	0.52%
Valuation Multiples (Low V2)	-5.4%	-1.92%	-1.5%	-0.48%	4.7%	1.26%	2.4%	0.54%	0.6%	0.12%	1.2%	0.31%	2.2%	0.80%
PRVit	-3.9%	-1.97%	3.1%	1.05%	7.1%	2.45%	2.8%	0.60%	1.8%	0.32%	2.4%	0.51%	3.5%	1.01%

Figure 10: Large Cap

U.S. Large Cap	1M		3M		1Y		3Y		5Y		10Y		Since May'98	
Industry Scores	IC	Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread
Profitability (High P)	9.4%	1.44%	7.3%	1.46%	2.7%	0.99%	2.3%	0.38%	2.7%	0.47%	1.6%	0.33%	1.7%	0.33%
Profitability Level (High P1)	8.3%	1.72%	8.2%	2.28%	3.1%	1.28%	2.4%	0.52%	2.9%	0.55%	1.3%	0.30%	1.4%	0.24%
Profitability Trend (High P2)	10.6%	2.05%	4.3%	0.97%	1.3%	0.76%	1.3%	0.20%	1.6%	0.27%	1.4%	0.26%	1.7%	0.35%
Risk (Low R)	-14.8%	-4.38%	2.3%	1.07%	4.6%	1.53%	0.0%	-0.22%	0.4%	-0.11%	0.2%	-0.02%	1.3%	0.29%
Volatility (Low R1)	-13.3%	-3.40%	6.9%	2.42%	5.8%	1.61%	0.4%	-0.13%	1.3%	0.03%	0.5%	0.00%	1.4%	0.18%
Vulnerability (Low R2)	-9.3%	-2.24%	-2.1%	-0.31%	2.0%	0.66%	-0.5%	-0.07%	-1.0%	-0.20%	-0.4%	-0.05%	0.6%	0.25%
Quality (High P - R)	0.0%	-0.75%	6.2%	1.65%	4.1%	1.33%	2.0%	0.25%	2.6%	0.37%	1.5%	0.29%	1.9%	0.37%
Valuation (Low V)	-11.4%	-3.16%	-5.2%	-1.18%	4.5%	1.24%	1.1%	0.29%	-1.4%	-0.22%	0.1%	0.07%	0.3%	0.31%
Valuation Ratios (Low V1)	-9.7%	-2.54%	-5.4%	-1.10%	4.1%	1.14%	1.1%	0.35%	-1.4%	-0.19%	0.1%	0.10%	0.1%	0.25%
Valuation Multiples (Low V2)	-14.6%	-3.44%	-4.2%	-0.97%	5.7%	1.57%	1.8%	0.25%	-0.6%	-0.16%	0.5%	0.10%	0.9%	0.30%
PRVit	-7.4%	-2.28%	2.3%	1.28%	5.9%	1.89%	2.4%	0.49%	1.2%	0.22%	1.6%	0.33%	2.2%	0.55%

Figure 11: Small Cap

U.S. Small Cap	1M		3M		1Y		3Y		5Y		10Y		Since May'98	
Industry Scores	IC	Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread
Profitability (High P)	1.4%	-0.06%	5.0%	1.71%	6.5%	1.82%	2.0%	-0.11%	2.1%	0.08%	2.5%	0.39%	2.8%	0.50%
Profitability Level (High P1)	1.2%	-0.42%	6.0%	1.78%	6.8%	1.94%	2.6%	-0.02%	2.7%	0.20%	2.7%	0.40%	2.9%	0.51%
Profitability Trend (High P2)	3.0%	0.22%	3.4%	1.38%	4.7%	1.66%	1.1%	-0.07%	1.0%	0.03%	1.8%	0.33%	2.1%	0.44%
Risk (Low R)	-10.9%	-5.76%	4.2%	0.50%	7.8%	1.73%	1.8%	-0.56%	2.3%	-0.07%	2.1%	0.21%	2.9%	0.52%
Volatility (Low R1)	-13.9%	-4.91%	5.9%	1.12%	7.8%	1.97%	2.3%	-0.73%	3.2%	-0.07%	3.2%	0.26%	3.4%	0.34%
Vulnerability (Low R2)	-4.9%	-2.42%	0.8%	-0.06%	4.1%	0.76%	0.4%	-0.33%	0.4%	-0.12%	0.2%	0.01%	1.2%	0.44%
Quality (High P - R)	-1.9%	-1.04%	6.1%	2.44%	8.2%	2.43%	2.1%	-0.46%	2.4%	-0.04%	2.8%	0.35%	3.4%	0.61%
Valuation (Low V)	-1.8%	-1.21%	-4.1%	-1.20%	1.4%	0.88%	2.2%	1.39%	0.2%	0.51%	0.4%	0.38%	1.1%	0.84%
Valuation Ratios (Low V1)	-2.7%	-1.43%	-5.0%	-0.92%	0.2%	0.54%	1.8%	1.43%	-0.1%	0.49%	0.0%	0.36%	0.5%	0.68%
Valuation Multiples (Low V2)	-1.1%	-1.55%	-0.8%	-0.15%	5.1%	1.31%	3.1%	0.71%	1.5%	0.28%	1.6%	0.43%	2.9%	1.05%
PRVit	-2.3%	-1.52%	3.2%	0.96%	7.9%	2.72%	3.0%	0.67%	2.0%	0.31%	2.6%	0.57%	4.0%	1.16%

Sector Results on Next Page

PRVit Performance by Sector

In **Figures 12**, **13**, and **14**, we show the Information Coefficients and Average Monthly Spreads for our PRVit, Quality, and Value factors by sector. PRVit had a positive spread in four sectors in July ('1M' columns). Quality performance struggled in most sectors (exceptions: Materials, Discretionary, Financials, and Communication Services). Value was positive in Materials, Financials, Communication Services, and Real Estate.

Figure 12: PRVit Performance by Sector

| PRVit Spreads | 1M | | 3M | | 1Y | | 3Y | | 5Y | | 10Y | | Since May'98 | |
Sector, U.S. All-Cap	IC	Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread
ENERGY	-17.8%	-9.87%	-2.6%	-1.86%	-0.9%	-0.32%	1.8%	0.66%	1.1%	0.65%	0.8%	0.61%	2.3%	0.82%
MATERIALS	9.3%	4.22%	3.6%	2.95%	11.3%	4.61%	0.7%	0.12%	-0.4%	-0.45%	2.4%	0.39%	2.8%	0.65%
INDUSTRIALS	-6.8%	-2.58%	2.5%	0.24%	6.4%	1.83%	2.1%	0.35%	1.1%	0.18%	2.7%	0.52%	3.9%	1.09%
CONS DISC	-0.6%	-0.04%	7.0%	3.05%	7.4%	3.18%	2.2%	0.61%	1.6%	0.28%	2.3%	0.60%	3.8%	1.04%
CONS STAP	-11.0%	-4.28%	-2.6%	-1.27%	10.6%	2.94%	5.2%	0.77%	2.6%	0.07%	3.9%	0.61%	4.5%	1.08%
HEALTH CARE	-11.9%	-5.56%	-2.1%	-0.68%	10.4%	3.96%	3.6%	0.50%	2.2%	0.20%	2.5%	0.24%	4.2%	1.08%
FINANCIALS	5.1%	0.97%	4.0%	1.36%	2.6%	0.40%	3.3%	0.54%	3.5%	0.51%	3.6%	0.59%	4.0%	0.80%
INFO TECH	-5.0%	-2.58%	9.6%	2.88%	11.3%	3.39%	4.7%	1.30%	2.7%	0.83%	2.3%	0.57%	3.3%	1.17%
COMM SVC	-0.1%	1.94%	-0.2%	1.77%	8.7%	3.34%	2.1%	0.53%	0.6%	0.03%	0.7%	-0.07%	2.2%	0.69%
UTILITIES	-18.8%	-4.45%	-2.1%	0.36%	0.9%	0.27%	-2.4%	-0.41%	-2.3%	-0.31%	0.5%	0.20%	2.2%	0.42%
REAL ESTATE	10.9%	1.66%	11.2%	2.15%	2.7%	1.16%	0.0%	0.36%	-1.1%	-0.13%	-1.0%	-0.07%	-1.0%	-0.07%

Figure 13: Quality Performance by Sector

| Quality Spreads | 1M | | 3M | | 1Y | | 3Y | | 5Y | | 10Y | | Since May'98 | |
Sector, U.S. All-Cap	IC	Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread
ENERGY	-24.2%	-9.77%	-3.6%	-2.50%	-2.5%	-2.09%	0.0%	-1.60%	1.6%	-0.43%	3.8%	0.67%	3.0%	0.50%
MATERIALS	4.0%	2.08%	1.8%	0.76%	8.3%	2.68%	-2.2%	-1.20%	-0.3%	-0.86%	1.3%	-0.24%	1.5%	0.05%
INDUSTRIALS	0.3%	-0.59%	5.7%	1.86%	6.1%	1.04%	2.0%	-0.41%	2.0%	-0.11%	2.7%	0.24%	3.2%	0.46%
CONS DISC	6.4%	4.30%	10.2%	5.75%	8.6%	3.29%	2.2%	-0.64%	4.2%	0.25%	3.9%	0.63%	4.4%	0.81%
CONS STAP	-6.5%	-3.41%	0.8%	0.19%	10.3%	3.52%	4.4%	0.69%	5.7%	0.74%	3.3%	0.65%	3.3%	0.78%
HEALTH CARE	-9.7%	-3.77%	1.9%	0.38%	14.4%	4.66%	5.0%	-0.05%	4.9%	0.37%	3.9%	0.37%	4.0%	0.68%
FINANCIALS	0.3%	0.45%	1.5%	0.66%	0.7%	0.54%	0.2%	0.11%	0.8%	0.11%	1.1%	0.17%	1.6%	0.21%
INFO TECH	2.6%	-3.45%	13.6%	3.78%	11.3%	2.80%	4.7%	-0.13%	4.4%	0.33%	3.2%	0.26%	3.7%	0.53%
COMM SVC	6.8%	4.90%	12.3%	5.37%	7.0%	2.63%	3.9%	-0.48%	4.1%	-0.33%	3.7%	0.11%	3.6%	0.55%
UTILITIES	-14.2%	-2.82%	-1.6%	0.74%	-7.4%	-0.67%	-5.7%	-1.01%	-5.2%	-0.70%	-1.8%	-0.08%	-0.6%	0.10%
REAL ESTATE	1.2%	-2.61%	12.1%	1.22%	3.9%	1.20%	0.7%	0.06%	0.5%	0.08%	-0.1%	0.08%	-0.1%	0.08%

Figure 14: Value Performance by Sector

| Value Spreads | 1M | | 3M | | 1Y | | 3Y | | 5Y | | 10Y | | Since May'98 | |
Sector, U.S. All-Cap	IC	Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread
ENERGY	0.1%	-1.82%	4.1%	1.43%	3.0%	2.01%	0.6%	2.21%	-1.6%	0.93%	-3.4%	-0.12%	-0.6%	0.32%
MATERIALS	-0.5%	4.07%	0.4%	0.19%	5.3%	2.79%	5.4%	2.50%	1.2%	1.41%	2.2%	1.40%	2.1%	1.22%
INDUSTRIALS	-10.5%	-3.86%	-4.0%	-1.21%	2.2%	1.06%	1.0%	1.01%	-0.5%	0.43%	0.1%	0.37%	1.1%	0.78%
CONS DISC	-8.3%	-4.95%	-4.2%	-1.54%	0.5%	0.57%	2.0%	1.51%	-2.0%	0.10%	-1.6%	0.09%	-0.7%	0.45%
CONS STAP	-9.3%	-3.84%	-6.2%	-1.67%	4.3%	1.66%	2.2%	1.40%	-2.1%	0.36%	1.2%	0.65%	1.3%	0.75%
HEALTH CARE	-8.7%	-0.36%	-8.2%	-1.16%	-2.6%	-0.42%	-0.7%	0.52%	-2.9%	-0.47%	-1.4%	-0.06%	0.5%	0.79%
FINANCIALS	10.8%	1.64%	5.7%	1.48%	3.1%	0.34%	5.2%	0.85%	4.1%	0.60%	3.8%	0.53%	3.0%	0.62%
INFO TECH	-10.9%	-1.10%	-4.4%	-0.77%	2.7%	1.06%	0.3%	1.11%	-2.4%	0.04%	-1.1%	0.21%	-0.2%	0.68%
COMM SVC	-9.2%	0.20%	-13.2%	-2.86%	5.2%	1.77%	-0.5%	1.37%	-2.5%	-0.03%	-2.2%	-0.54%	-0.6%	-0.12%
UTILITIES	-4.5%	-1.10%	-5.2%	-0.54%	9.2%	2.26%	3.9%	0.89%	3.8%	0.68%	2.8%	0.55%	3.3%	0.53%
REAL ESTATE	14.0%	3.32%	-0.7%	-0.39%	-1.0%	-0.14%	-1.4%	-0.29%	-1.6%	-0.68%	-0.5%	-0.26%	-0.5%	-0.26%

PRVit Performance by Quintiles and Long/Short

Figures 15 and **18** (next page) show the quintile performance over various time slices. Over the long term, PRVit performance tends to be monotonic (1st quintile beats the 2nd quintile, 2nd quintile beats the 3rd quintile, etc.). On the right (**Figures 16** and **19**), we isolate the performance of the top and bottom quintiles and show the alpha from buying the top quintile (long) or selling the bottom quintile (short).

Large Cap Commentary

In July, the top quintile underperformed the universe (-112bps). The bottom quintile outperformed the universe (+116bps). The total PRVit spread was -228bps for the month. PRVit had worked for seven months in a row through the end of May but has struggled in June and July. Most time slices look very monotonic beyond the 3-month time slice. In **Figure 16**, short alpha (+32bps/month) contributes slightly more than long alpha (+23bps/month) over time.

### Figure 15: Stock Returns by PRVit Quintiles
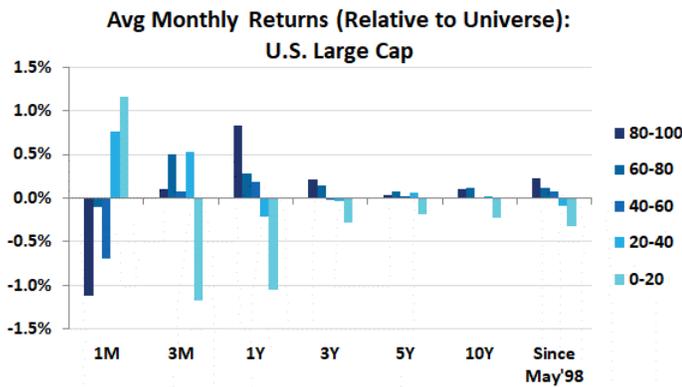
Figure 16: Long and Short Alpha
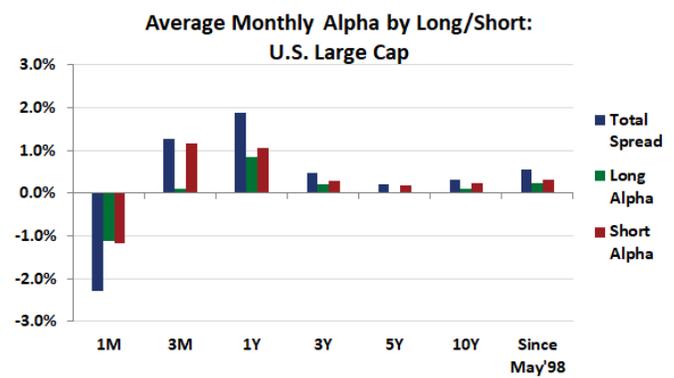
Compound Top and Bottom Quintiles

In **Figure 17**, we plot the return of the top (green line) and bottom (red line) quintiles of PRVit versus the equal-weighted benchmark returns. The top and bottom quintiles are re-balanced monthly and include all companies trading at the time. The difference between the green line and the dotted gray line is the **long alpha** while the difference between the red line and the dotted gray line is the **short alpha**. The difference between the green line and the red line is the total spread.

Figure 17: Compound Performance of Top and Bottom Quintiles
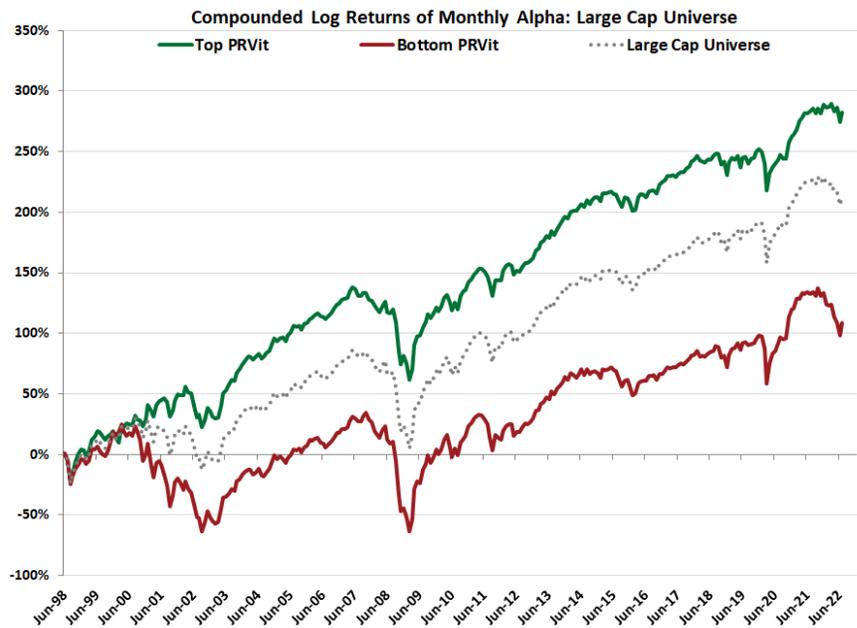
Small Cap Commentary

The Small Cap universe saw the top quintile underperform the universe (-28bps) in July. The top quintile had been the best-performing quintile in seven of the last eight months up through May but has now struggled in June and July. The bottom quintile underperformed the universe (-124bps) and was the second-worst performing quintile. The total PRVit spread was -152bps in July. PRVit has been positive in 11 of the last 13 months, averaging +281bps/month. Over the long term, alpha is relatively balanced between long (+52bps/month) and short (+64bps/month).

Figure 18: Stock Returns by PRVit Quintiles

Avg Monthly Returns (Relative to Universe): U.S. Small Cap
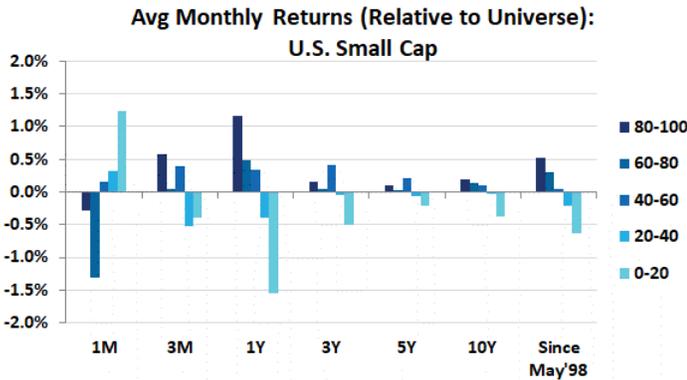
Figure 19: Long and Short Alpha

Average Monthly Alpha by Long/Short: U.S. Small Cap
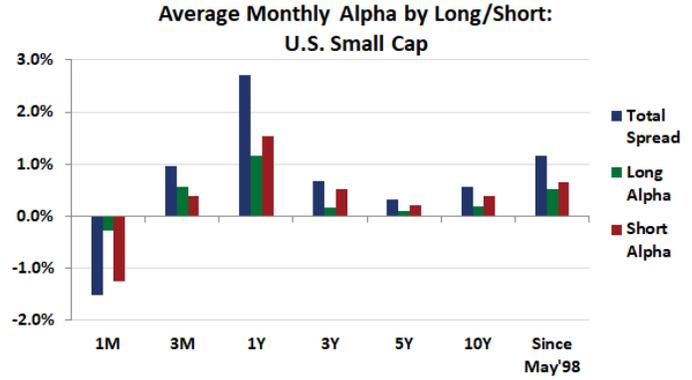
Compound Top and Bottom Quintiles

In **Figure 20**, we plot the return of the top (green line) and bottom (red line) quintiles of PRVit versus the equal-weighted benchmark returns. The top and bottom quintiles are re-balanced monthly and include all companies trading at the time. The difference between the green line and the dotted gray line is the **long alpha** while the difference between the red line and the dotted gray line is the **short alpha**. The difference between the green line and the red line is the total spread.

Figure 20: Compound Performance of Top and Bottom Quintiles

Compounded Log Returns of Monthly Alpha: Small Cap Universe
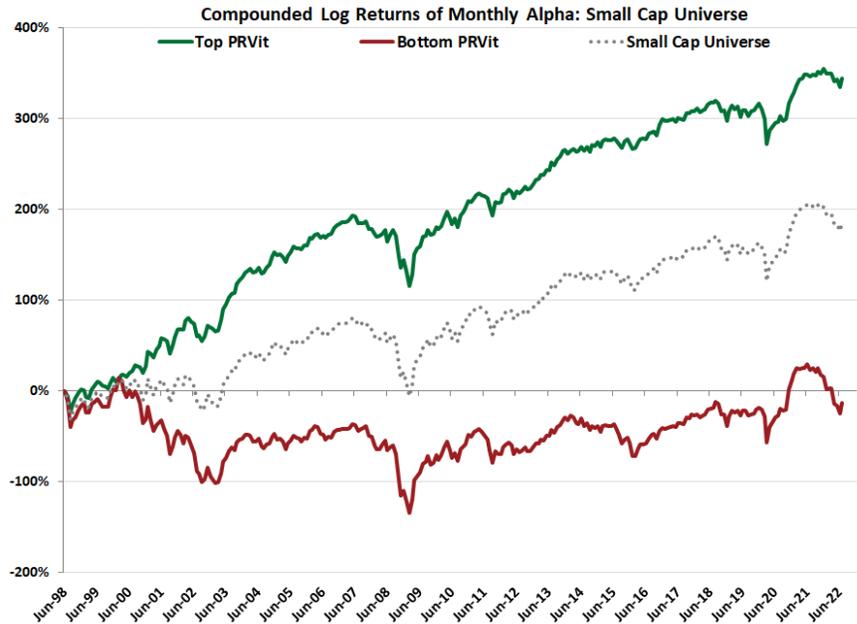
Long-Term Selected Factor Performance

The graphs below show compounded top/bottom spreads of our key factors: Profitability, Risk, and Value. The Equal Benchmark line is graphed on the secondary y-axis to show which factors work during certain market conditions. The factor performance is cumulative alpha: when the colored lines are above 0%, they have generated alpha.

Figures 21 and **22** both show the struggle seen in cheap Value (green line) for several years until the uptick in the latter half of 2020. The initial Value run lasted until May 2021, but then Value was mostly down until December 2021. From December 2021 through May 2022, investors began to price in rate hikes, rewarding cheap Value again. Profitability and Risk had been off dramatically for most of 2020 (post-pandemic trough) but then saw a strong recovery into the end of 2021. All factors worked in both universes in April and May. In July, Profitability was the only factor in Large Cap that trended up.

Figure 21: Compounded Spreads – Large Cap

Compounded Log Returns of Monthly Alpha: Large Cap
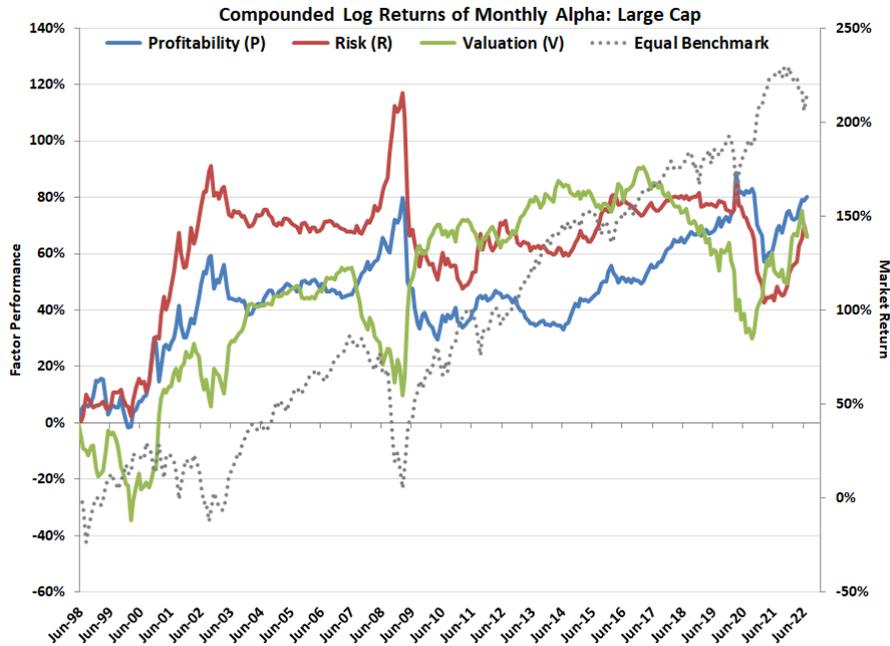
Figure 22: Compounded Spreads – Small Cap

Compounded Log Returns of Monthly Alpha: Small Cap
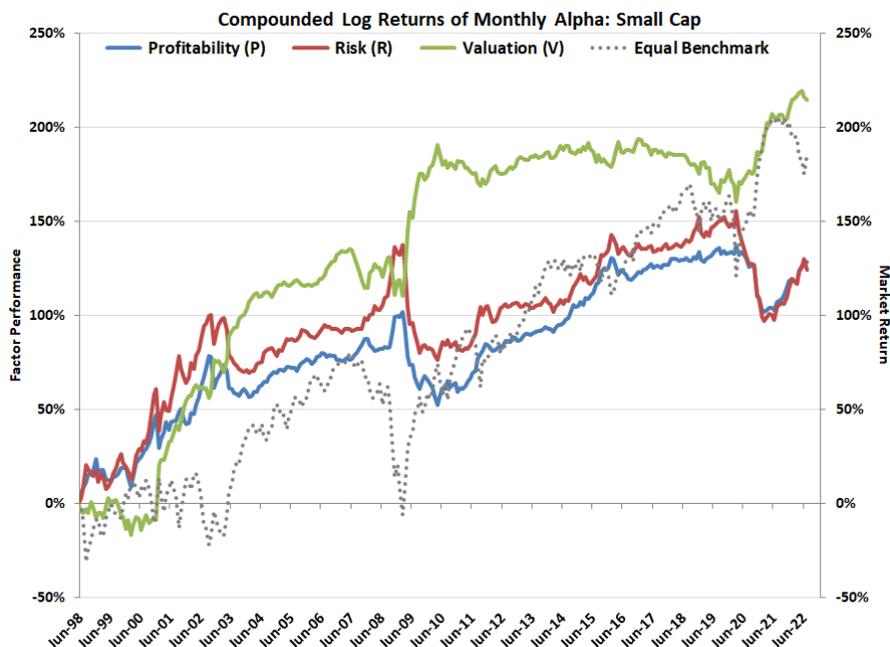
Expectations Analysis

A key driver of our Value scores is the imbedded expectations of the market. For this, we use the Future Growth Reliance (FGR) metric which computes the implied future EVA growth.

Figure 23 below plots FGR over the last ten years (previous reports used five years) – the gray area is the overall range (min to max), the orange lines represent the mean, the greenish-blue lines show the mean plus/minus 1 standard deviation, the green diamonds represent the current value, the red 'Xs' indicate the lows from March 2009, and the blue 'Xs' represent the lows of March 2020. **Figure 24** contains similar metrics for our MVA Spread, which is our version of price-to-book (Market Value Added to Capital base). Small Cap versions can be found on the next page.

Formulas

Future Growth Reliance (FGR) = FVA / Market Cap.

Future Value Added (FVA) = Market Cap – Current Value Added (CVA)

Current Value Added (CVA) = EVA / Cost of Capital (no-growth scenario)

('Xs' below represent the number of standard deviations the current value is from the mean)

Figure 23: Expectations – Large Cap by Sector


Large Cap

Utilities (+1.0x), IT (+0.5x), and Industrials (+0.2x) have the highest expectations. Materials (-2.4x), Communication Services (-2.1x), and Financials (-1.7x) have some of the lowest relative expectations.

Figure 24: Market Value Added Spread (Price-to-Book) Large Cap

Large Cap

Utilities (+2.0x), Staples (+1.8x), and Health Care (+1.5x) have MVA Spreads well above their historical levels. Materials (+0.5x), IT (+0.1x), and Communication Services (-0.2x) have some of the lowest relative prices.

MVA Spread is the Market Value Added divided by Capital base. FGR looks at just the portion of MVA coming from future EVA creation while MVA Spread looks at the value coming from existing profitability (CVA) as well as future EVA (FVA). MVA Spread is our version of a price-to-book ratio using our EVA-adjusted Capital base.

Figure 25: Expectations – Small Cap by Sector

Future Growth Reliance: US Small Cap
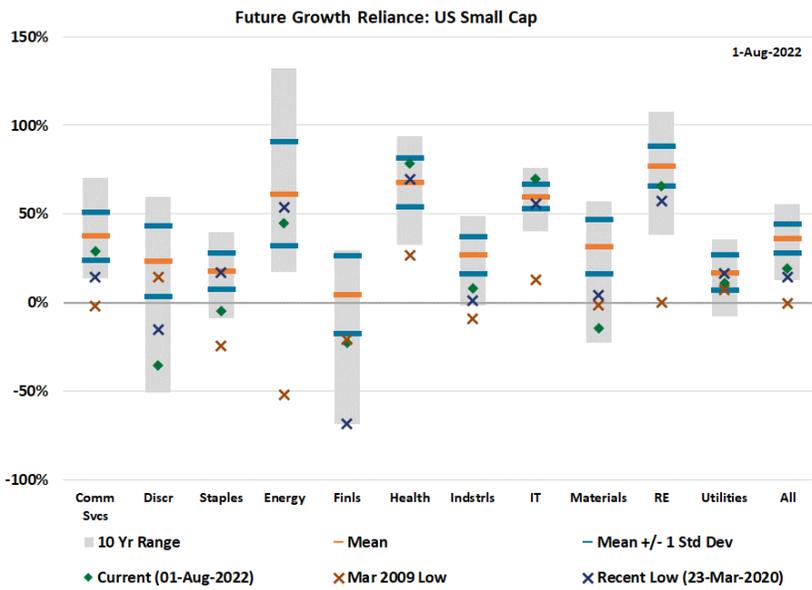
Small Cap

IT (+1.5x), Health Care (+0.8x), and Energy (-0.6x) have the highest expectations priced in. Materials (-3.0x), Discretionary (-2.9x), and Staples (-2.2x) have the lowest expectations. Reminder: When the green diamonds are below 0%, investors are pricing in a decline in profitability from current levels.

Figure 26: Market Value Added Spread (Price-to-Book) Small Cap

Market Value Added Spread: US Small Cap
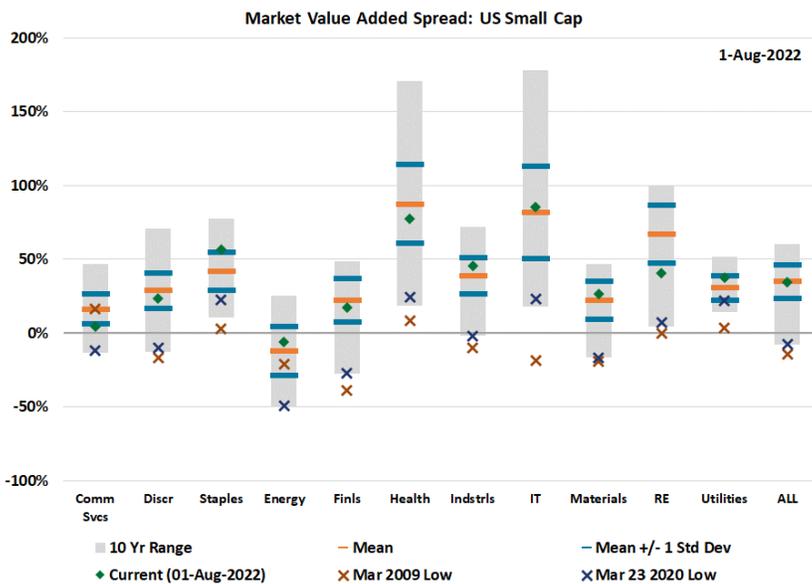
Small Cap

Staples (+1.2x), Utilities (+0.8x), and Industrials (+0.6x) have MVA Spreads above their historical levels. Communication Services (-1.2x), Discretionary (-0.5x), and Health Care (-0.4x) have some of the lowest relative prices.

ISS ESG U.S. EVA Leaders Index Results on Next Page

EVA & ESG Index

Creation of the index follows a four-step process and starts with the screening of constituents of the Solactive Global Benchmark Series. From there, ISS ESG screens are applied to remove prospective constituents with Red Norm-Based Research flags, Red Controversial Weapons flags, and those with an overall ISS ESG Corporate Rating of D-, D, and D+. Next, the EVA screen is applied to remove prospective constituents with a negative EVA margin and, lastly, qualifying constituents are added by sector, based on descending EVA Margin until reaching a market cap threshold and targeting sector neutrality. Indexes are market cap weighted after the above steps and rebalanced quarterly.

Index methodologies are available on the ISS website and that of the Index Administrator, Solactive AG, an authorized benchmark administrator under European Benchmarks Regulation (BMR). We currently offer three indexes covering the U.S. (ISSEVAUT), Europe (ISSEVAET), and Developed Markets (ISSEVADT) – Bloomberg tickers in parentheses.

To learn more about ISS ESG's index offerings, please click here.

See PRVit Report – Global and Europe for similar graphs with those regional indexes.

Figure 27: ISS ESG U.S. EVA Leaders
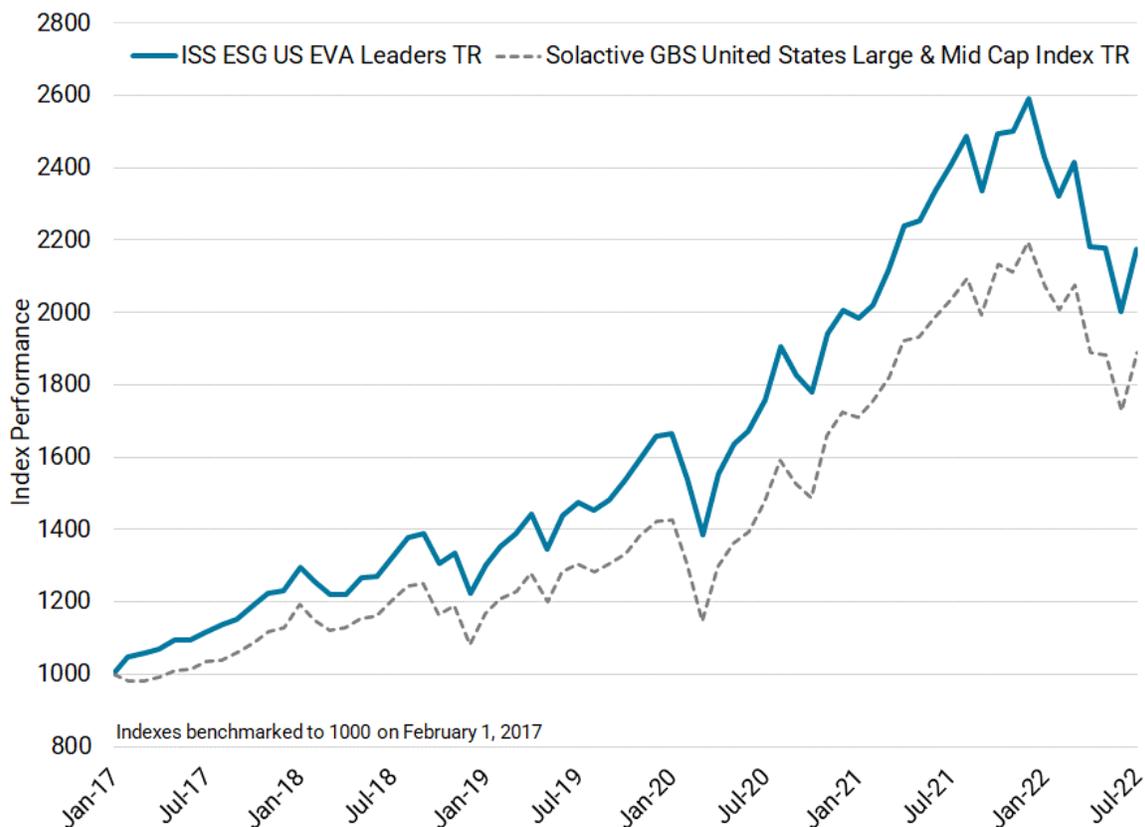
About ISS EVA

We are an independent equity research provider offering investing insights through the use of our proprietary Economic Value Added (EVA) framework.
EVA converts accounting profits into economic profits and charges businesses for the use of Invested Capital. EVA is superior to traditional measures of profit because it is comparable across companies, industries, and countries, links to a consistent, transparent valuation framework, and provides a unique, unbiased view of Quality, Value, and Growth.

Our experienced team of analysts offers both fundamental and quantitative company analysis through written research, bespoke research, a stock selection model, an online analytical tool offering +24,000 companies as viewed through the EVA framework, custom screening, and portfolio analysis.

Key EVA Concepts

The value of a firm = Capital + Present Value of EVA
If EVA is increasing then the intrinsic value of the firm is too, suggesting that market value should follow (and vice versa).

EVA = NOPAT - Capital Charge
EVA is profit after all costs, including the cost of giving shareholders a decent return.

EVA Margin = EVA / Sales
A true economic profit margin covering income and asset efficiency. Our EVA Income Statement examines EVA's line-item drivers and offers key insights into business profitability.

EVA Momentum = Δ EVA / Sales
An incremental EVA growth rate indicator and key valuation signal and screening measure. The more positive the Momentum, the greater the growth in EVA, and upward pressure on shareholder returns. Inflections in EVA Momentum are an early and more reliable indicator of stock price inflections.

EVA Shock = Δ EVA Momentum
Changes in EVA Momentum is a powerful signal within our framework, with significant relationship with stock price performance.

Market Implied Momentum (MIM)
The annual EVA improvement required for 10 years to justify the prevailing market enterprise value, expressed as a percent of sales; represents a market implied, long-range EVA margin improvement target.

Future Growth Reliance (FGR) = (Market implied value of future EVA growth) / Enterprise Value
Measures the % of a company's total enterprise value represented by expectations for future growth in EVA. FGR is key to understanding embedded expectations today and versus history. A low FGR versus history coupled with improving EVA trends indicates that the market is not pricing in the improving business model.

Additional Resources

evaExpress.com (link): Our online offering provides a comprehensive suite of fundamental and quantitative tools utilizing the EVA framework
EVA for Investors (link): A full introduction to the key EVA concepts and metrics

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