

# Convergence Long/Short Strategies

## Q4-2019 Factor Analysis

*“...there is little to suggest that factor investing has structurally changed or that it has lost its appeal. While the returns have been disappointing of late, we would do well to keep on plowing the fields and wait for better harvests in the future.”*

*- Nicolas Rabener, author/columnist*

### Factor Research

The following table shows the three top and bottom performing factors within the U.S. Equity market over different time periods. We ranked all 15 factor composites by quintile spread return to show that what can work over the long term is not always true in the short term (see disclosures for a definition of quintile spread return).

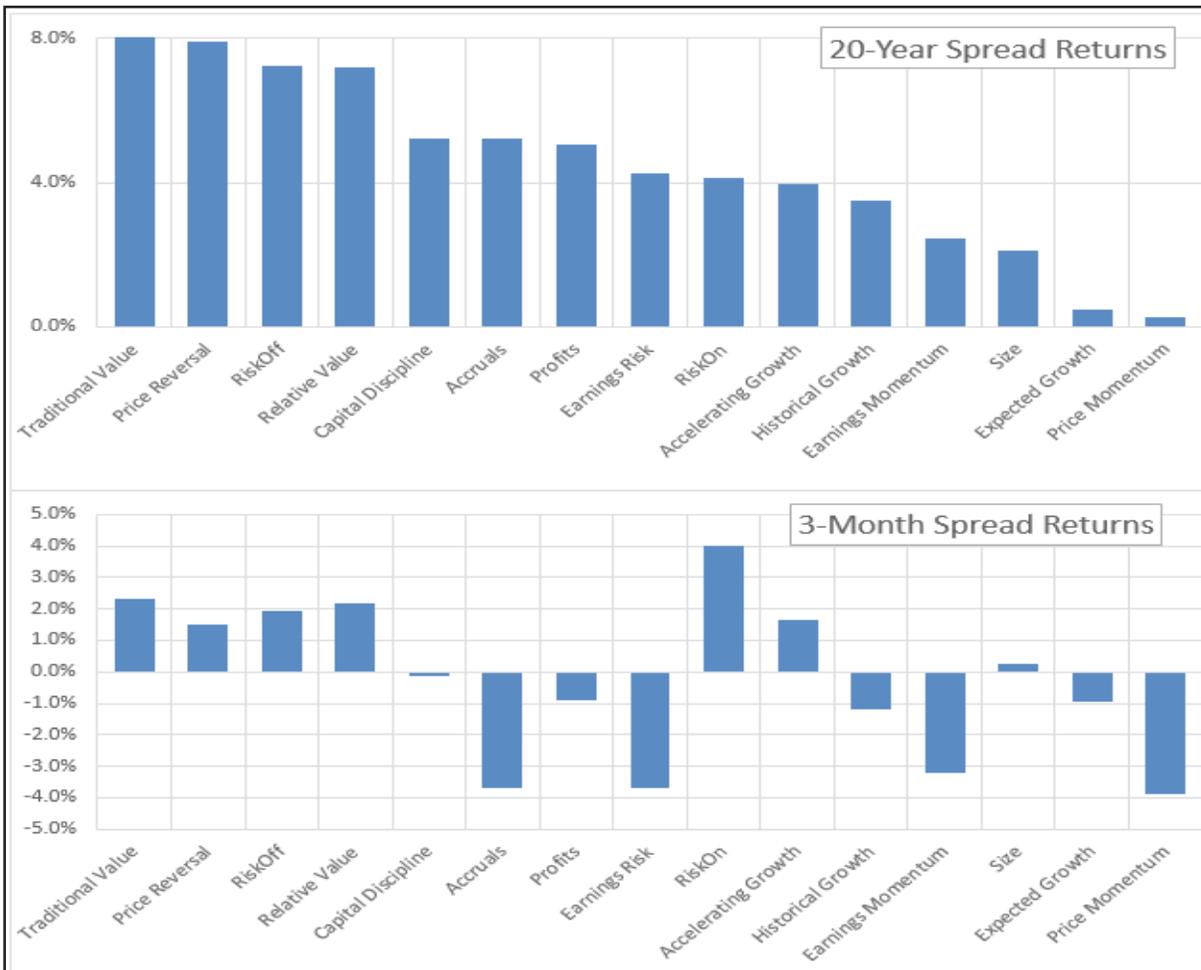
	3 mo	6 mo	12 mo	5 yr	10 yr	20 yr
Top 3	RiskOn	RiskOn	Price Reversal	Price Reversal	Sales Growth	Traditional Value
	Traditional Value	Price Reversal	Relative Value	Earnings Risk	Price Reversal	Price Reversal
	Relative Value	Size	Sales Growth	Price Momentum	Capital Discipline	RiskOff
Bottom 3	Accruals	Expected Growth	Earnings Risk	Accruals	Accruals	Size
	Earnings Risk	Accruals	Traditional Value	Traditional Value	Expected Growth	Price Momentum
	Price Momentum	Price Momentum	Accruals	RiskOn	RiskOn	Expected Growth

As of 12/31/2019. Source: Convergence Investment Partners, Wilshire Analytics.

The above table shows that the last few months were very much a “risk on” environment. Our RiskOn composite contains ratios that quantify relative indebtedness, like debt to equity and assets to liabilities. It also takes into consideration, at a lower weight than leverage, the low-price anomaly which is based on research from several financial markets. This anomaly that has shown that low priced shares can outperform high priced shares on a risk-adjusted return basis, can also be referred to as the “low price effect”. The table also shows that the past year has been favorable for Price Reversal. Price Reversal is based on a signal that perhaps prices may have moved too far, too fast in the recent one-month time period. This is contrary (but related) to Price Momentum which is a persistent signal over a period that excludes the most recent month. Our research shows that the most recent month should be excluded, due to the price action during this period not giving a good signal to use for momentum. Market commentators have called this the Teflon market (keeps moving up, nothing can stick to it...). We would argue, based on the performance of our Price Reversal factor that this was more of a “Trampoline Market,” whatever slipped or fell down was massively propelled higher, regardless of fundamental support!

The charts below show an analysis of which factors worked in Q4-2019 versus their trailing 20-year returns. These tables show the long-short quintile spread returns of all the factor composites we monitor at Convergence Investment Partners.<sup>1</sup>

Factor metrics rewarded by market participants within the US equity markets



While most factors generated positive spread in the third quarter, it seems we experienced some fundamental factor headwinds in the last 3 months of the year. The chart shows that in the 4<sup>th</sup> quarter only 6 of our 15 factor composites generated a meaningful positive spread. When looking at the top 20-year chart, one easily observes that all Convergence Factor composites have generated a positive spread in this lengthy time period.

<sup>1</sup> These returns are linked monthly spread returns as opposed to the difference between the 12 month long and short holdings.

In order to better observe thematic changes in factor efficacy, we created the following chart which shows spread returns of 3-month periods over the past 3 years. These are ranked from highest spread return to lowest spread return for each quarter (see the legend below).

Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
PR 3.15	HG 2.75	PM 5.38	ER 3.96	PM 2.87	PM 2.86	PM 3.9	ER 8.87	PR 1.96	PM 4.25	ER 4.44	RON 4.02
AG 2	PM 2.07	EM 3.5	PT 3.64	EG 1.68	AG 1.98	PT 2.44	SZ 5.69	RV 0.05	AG 1.34	SZ 3.5	TV 2.32
CD 1.44	EM 1.63	CD 1.65	SZ 2.69	ACC 1.56	RON 1.86	ER 1.73	RSK 4.19	CD -0.26	EG 1.05	PR 2.39	RV 2.16
HG 1.34	SZ 1.19	HG 0.93	PM 2.51	HG 1.15	RV 1.47	PR 1.47	HG 3.05	HG -0.93	SZ 1.01	AG 2.08	RSK 1.95
EM 1.13	PT 0.58	EG 0.9	TV 1.92	AG 1.11	ACC 0.94	AG 1.12	PT 2.49	RON -0.97	ER 0.7	PT 1.68	AG 1.65
SZ 0.66	CD 0.57	ACC 0.81	EM 1.42	CD 0.88	EG 0.65	CD 1.09	CD 1.59	EM -1.37	EM 0.41	EM 1.25	PR 1.52
EG -0.13	ER 0.43	PT 0.69	RV 1.06	EM 0.8	CD 0.51	EM 1.06	RV 1.33	EG -1.77	RV 0.36	CD 0.91	SZ 0.26
RV -0.38	PR -0.1	PR 0.49	AG 0.96	PT 0.23	HG 0.1	HG 0.86	EG 1.29	ACC -2.01	HG 0.23	ACC 0.66	CD -0.13
RSK -0.59	AG -0.22	RV 0.27	RSK 0.39	ER 0.18	PR -0.16	EG 0.4	TV 0.52	AG -2.09	PT 0.17	RON 0.57	PT -0.89
PM -1.09	EG -0.37	AG -0.03	EG -0.18	RSK -0.42	EM -0.31	ACC -0.61	PR 0.24	RSK -2.44	PR -0.38	RSK 0.55	EG -0.96
RON -1.2	ACC -0.64	ER -0.2	HG -0.38	PR -0.43	RSK -1.18	RSK -0.95	ACC -0.33	SZ -2.87	CD -1.21	RV 0.47	HG -1.18
ACC -1.95	RV -1.7	RON -0.6	PR -0.49	SZ -0.64	ER -1.34	SZ -1.73	PM -0.63	PM -3.06	RON -1.76	PM 0.36	EM -3.19
PT -2.11	RON -2.08	TV -0.76	CD -0.74	RV -2.62	PT -1.93	RON -2.85	EM -1.35	PT -3.41	RSK -1.86	TV 0.07	ACC -3.67
ER -3.23	TV -2.45	SZ -1.19	ACC -1.6	RON -3.46	TV -4.16	RV -2.85	AG -2.17	TV -4.87	ACC -2.94	HG -0.09	ER -3.69
TV -4.03	RSK -2.71	RSK -1.82	RON -2.03	TV -4.61	SZ -6.81	TV -3.18	RON -3.8	ER -5.14	TV -2.96	EG -1.16	PM -3.89

ACC	Accruals	HG	Historical Growth	RV	Relative Value
AG	Accelerating Growth	PM	Price Momentum	SZ	Size
CD	Capital Discipline	PR	Price Reversal	TV	Traditional Value
EM	Earnings Momentum	PT	Profits	RON	RiskOn
ER	Earnings Risk	RSK	RiskOff	EG	Expected Growth

## Disclosures

**Past performance is no guarantee of future results.** Any investment contains risk including the risk of total loss. There is no guarantee that an investment or strategy will meet its investment objectives.

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Source of all factor data: Convergence Investment Partners.

No graph, chart, or formula should in and of itself be used to determine which securities to buy or sell.

## FACTOR COMPOSITE RESULTS

Factor Composites (factors) are composed of securities in the Russell 3000 Index ranked by Convergence in terms of the identified metrics. Thus individual stocks appear in multiple composites. No client portfolios are managed to any one factor and all factor results reflect backtested data. Factor composites are not available for direct investment. Factor composite results are measured in terms of their quintile spread return ("spread return"): the difference between the index-weighted average results of the highest ranked 20% less that of the lowest ranked 20%. Higher positive numbers indicate that the factor was more relevant to / indicative of stocks that performed well. Negative results are similarly indicative of factors that could have made effective shorts. Convergence views most factors on an industry group neutral basis where industry group weights are fixed based on the selection universe/index weights.

The Russell 3000 Index measures the performance of the largest 3000 US companies. It is constructed to provide a comprehensive, unbiased, and stable barometer of the broad market and it is reconstituted annually to ensure new and growing equities are reflected. Comparison to any index is for illustrative purposes only and the volatility of the benchmark may be materially different from the volatility of the strategies due to varying degrees of diversification and/or other factors. Index performance returns do not reflect any management fees, transaction costs, or expenses. Indices are unmanaged. You cannot invest directly in an index.