

Convergence Long/Short Strategies

Q4-2020 Factor Analysis

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 fifteen 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 Momentum	Price Reversal	Sales Growth	Price Reversal
	Expected Growth	Expected Growth	Expected Growth	Price Momentum	Price Momentum	Traditional Value
	Price Reversal	Price Reversal	Price Reversal	Expected Growth	Earnings Momentum	Relative Value
Bottom 3	Sales Growth	Accruals	Size	Earnings Risk	Accruals	Expected Growth
	Earnings Risk	Earnings Risk	Traditional Value	Size	RiskOn	Price Momentum
	Profits	Profits	Earnings Risk	Traditional Value	Traditional Value	Size

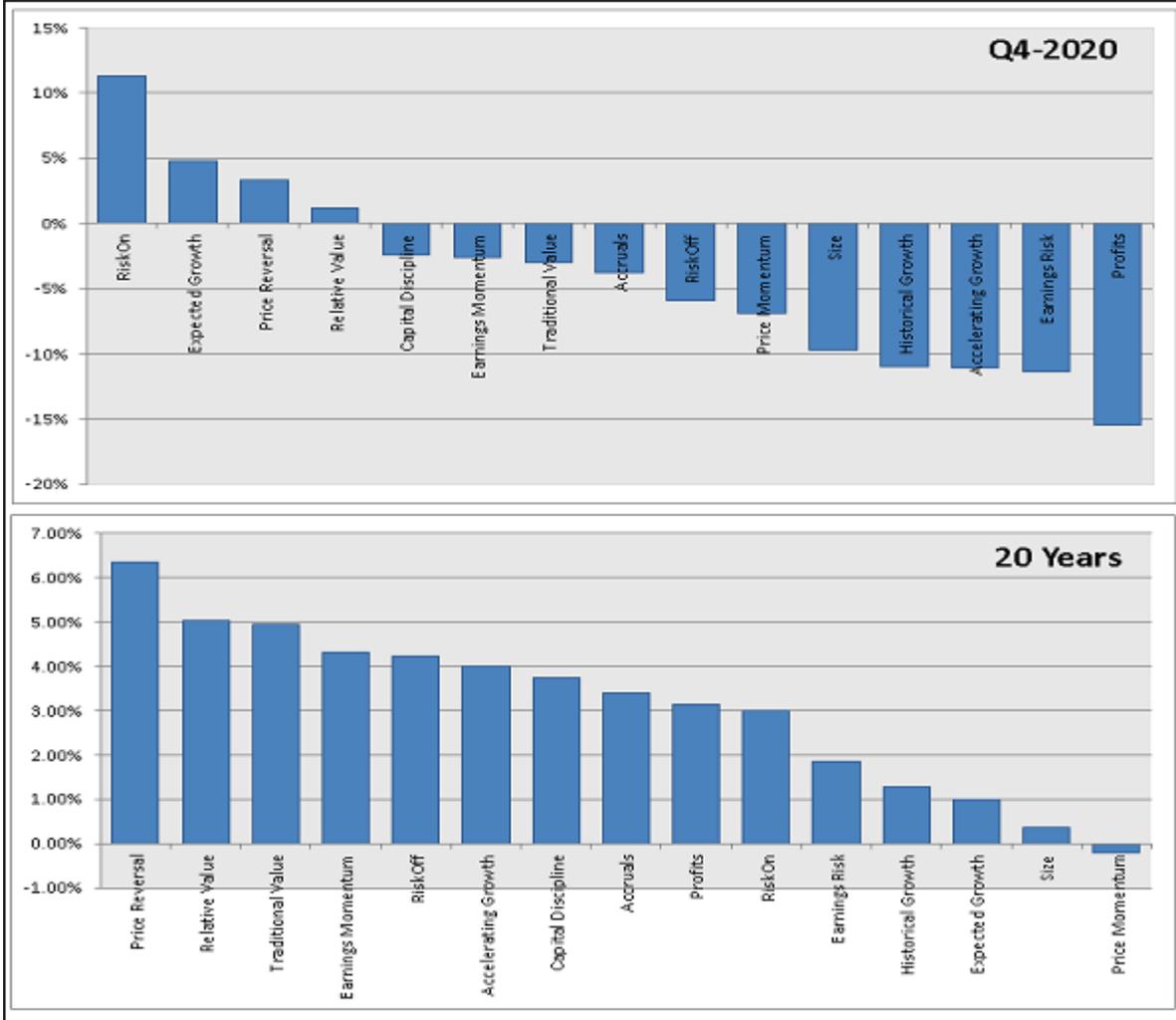
As of 12/31/2020. Source: Convergence Investment Partners, Wilshire Analytics. Production Long Q1 - Short Q5.

The above table shows that the more recent time periods have been very RiskOn and technically aware. Perhaps one could say that these periods have been fundamentally unaware. Our RiskOn composite is used only for our long portfolio analysis. The composite rewards leverage and low-priced stocks by looking at liabilities and debt levels relative to equity and assets. One of the worst performing factors in the short period was profitability trends, called “Profits” in the table. This composite is used in our long and short portfolio analysis. Profitability includes the asset turnover ratio and return of equity. It also looks at inventory and overhead management.

The charts on the following page show an analysis of which factors worked in Q4-2020 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.¹

¹ These returns are linked monthly spread returns as opposed to the difference between the 3-month long and short holdings.

Factor metrics rewarded by market participants within the US equity markets



As of 12/31/2020. Source: Convergence Investment Partners, Wilshire Analytics. Production Long Q1 - Short Q5.

As previously mentioned, the last quarter of 2020 was fueled by risk-seeking behavior. It is unsurprising that our RiskOn composite was the best performing factor in the quarter. It is also quite stunning to see that only four of our fifteen factor composites generated a positive spread in the three months. Also of note, the fourth quarter slump in Price Momentum was enough to push the factor into negative territory over a 20-year time period analysis. We find this especially interesting given that Price Momentum has been quite powerful in recent market appreciation.

It appears that Price Momentum tailwind was enjoyed primarily by massive companies and not the broader market momentum names. Our long-term investors are aware that all our factor composites are equally weighted across all stocks to avoid multicollinearity (or cross pollination) between the size/capitalization and momentum factors. The fourth quarter of 2020 was dominated by RiskOn, Expected Growth and Price Reversal. Most factors generated negative spread in the quarter, notably Sales Growth, Earnings Risk and Profits. We believe that the shockingly weak returns from the Profitability composite reveal the absurdity of the fourth quarter. Essentially, companies that lost the most money and whose

margins quickly eroded handsomely outperformed companies who managed to make the largest profits or even improve their margins during the pandemic. The negative 15% spread for Profitability was the lowest quarterly spread return for our Profits composite over the past 20 years. The -15% was a -3.67 standard deviation event, looking at the past 60 quarters. While we believe it possible for this to occur, the magnitude to which profitable companies were punished relative to their unprofitable counterparts was especially noteworthy. Can this style of “unprofitable” investing last for the long term? We do not think so and therefore we remain true to our approach, looking forward to the coming normalization.

In order to better observe 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-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20
CD 3.53	CD 3.22	PM 3.9	ER 8.87	PR 1.74	PM 4.25	ER 4.44	RON 4.02	HG 8.15	PR 10.75	PM 8.19	RON 11.25
PM 2.87	PM 2.86	AG 2.52	SZ 5.63	RV 1.63	EM 1.46	SZ 3.5	RV 3.39	PM 7.54	RV 3.51	EM 2.51	PR 3.17
AG 2.13	AG 2.22	PT 2.04	RSK 4.19	CD 0.4	EG 1.05	AG 2.58	TV 2.32	CD 5.26	RON 2.84	HG 1.84	EG 2.31
EG 1.68	RON 1.86	EM 1.98	PT 3.19	EM -0.6	SZ 1.01	PT 2.32	RSK 1.95	PT 4.87	EG 2.16	AG 1.12	RV 1.16
ACC 1.56	ACC 0.94	ER 1.73	HG 3.05	HG -0.93	AG 0.8	PR 1.85	AG 1.58	EM 3.84	EM 2.15	SZ 0.96	RSK 0.1
HG 1.15	EG 0.65	CD 1.38	CD 1.34	RON -0.97	ER 0.7	EM 1.82	PR 0.98	ER 0.27	RSK 0.77	RON 0.19	CD 0.05
EM 0.26	RV 0.43	PR 1.22	EG 1.29	EG -1.77	HG 0.23	ACC 0.66	SZ 0.26	AG 0.03	AG 0.01	EG -0.26	TV -1.51
ER 0.18	HG 0.1	HG 0.86	TV 0.52	ACC -2.01	PT 0.06	RON 0.57	CD -0.15	EG -0.08	PM -0.56	PT -0.68	EM -1.54
PT 0.17	PR -0.31	EG 0.4	RV 0	AG -2.09	PR -0.53	RSK 0.55	EG -0.96	ACC -2.63	CD -0.63	PR -3.14	ACC -3.53
RSK -0.42	EM -0.62	ACC -0.61	PR -0.19	RSK -2.44	RON -1.76	PM 0.36	PT -1.04	SZ -6.12	ACC -3.45	ER -3.83	PM -3.61
PR -0.43	RSK -1.18	RSK -0.95	ACC -0.33	SZ -2.87	RSK -1.86	TV 0.07	HG -1.18	PR -7.26	HG -3.5	RSK -3.96	SZ -3.67
SZ -0.64	ER -1.34	SZ -1.73	EM -0.63	PT -3.02	RV -2.12	HG -0.09	EM -2.81	RSK -3.39	PT -6.5	CD -5.3	ER -3.84
RV -2.27	PT -1.5	RON -2.85	PM -0.63	PM -3.06	CD -2.13	RV -0.62	ACC -3.67	RV -3.94	SZ -6.6	RV -5.42	AG -11.24
RON -3.46	TV -4.16	TV -3.18	AG -1.41	TV -4.87	ACC -2.94	EG -1.16	ER -3.63	TV -15.44	TV -7.3	TV -5.64	HG -11.3
TV -4.61	SZ -6.81	RV -4.46	RON -3.8	ER -5.14	TV -2.96	CD -2.1	PM -3.89	RON -17.47	ER -13.29	ACC -5.96	PT -15.49

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.