

The momentum-value standoff continues

May 2019

Research Signals

The trade war between value and momentum continued as the standoff between the US and China sent equity markets reeling, with stocks capping their worst month of the year. Factor performance in May reflected momentum's latest salvo on valuation (Table 1). High risk names were the casualties of the war as investors sought out traditional safe havens amid worries about the impact of trade tariffs on global economies. Concerns were reinforced by the J.P.Morgan Global Manufacturing PMI's lowest reading since October 2012, falling into contraction territory as international trade flows weighed on the sector.

- US: High momentum names, gauged by Industry-adjusted 12-month Relative Price Strength, outperformed at the expense of undervalued stocks, captured by TTM EBITDA-to-Enterprise Value
- Developed Europe: Investors reflected trends from other regional equity markets, in addition to signals from securities lending markets favoring stocks with lower short interest, such as Demand Supply Ratio
- Developed Pacific: High beta names strongly underperformed in Japan in May, with an 18.6 percentage point month-on-month swing in 60-Month Beta spread performance
- Emerging markets: 60-Month Beta and Industry-adjusted 12-month Relative Price Strength turned in solid performances last month

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Table 1

Global factor quantile return spread performance snapshot, May 2019

Factor	Factor Group	US Large Cap	US Small Cap	Developed Europe	Developed Pacific ex Japan	Japan Standard Cap	Emerging Markets
Book-to-Market		-4.61	-6.80	-5.03	-1.68	-2.70	-1.35
Forward 12-M EPS-to-Enterprise Value	Deep Value	-4.92	-0.34	-2.90	0.60	-3.95	0.00
TTM EBITDA-to-Enterprise Value		-7.20	-6.69	-3.73	5.13	-4.35	-0.91
TTM Free Cash Flow-to-Enterprise Value		-3.30	1.32	-5.32	0.48	-1.85	0.47
Industry Relative Leading 4-QTRs EPS to Price	Relative Value	-1.98	-0.72	-2.40	-2.14	-0.38	0.14
Industry Relative TTM Dividend Yield		1.92	-1.31	-1.28	4.06	-1.04	0.49
Fixed Assets Turnover Ratio		-0.89	0.58	-3.14	-3.31	-2.64	-0.22
Inventory Turnover Ratio	Management Quality	2.55	0.97	-1.21	0.79	3.34	0.14
Net Operating Asset Turnover		-3.57	-4.18	-1.91	-2.32	-4.37	-2.22
Change in Accruals to Assets		-0.98	0.22	-1.07	0.37	3.23	0.13
Change in TTM COGS vs. Inventory Level	Earnings Quality	-3.59	-1.41	-3.49	1.42	-0.44	0.92
Change in TTM Sales vs. Accounts Receivable		-2.75	-7.57	0.27	-0.97	-1.24	-1.07
Working Capital Accruals		3.50	3.94	2.05	-2.48	-2.42	1.35
1-yr Growth in TTM Free Cash Flow	Historical Growth	-1.23	-0.41	0.19	3.78	-1.18	1.12
Reinvestment Rate		1.49	-1.97	1.47	4.28	0.05	2.74
Average Monthly Trading Volume-to-Market Cap		-8.92	-8.92	-3.51	3.34	-8.71	-4.76
60-Month Beta	Liquidity, Risk & Size	11.74	6.06	10.04	6.18	10.59	4.14
Asset Quality Index		1.45	3.81	-0.68	4.95	-2.12	1.06
Operating Leverage		0.64	1.83	0.65	-1.41	-3.22	1.20
Natural Logarithm of Market Capitalization		-3.76	-6.90	1.11	5.90	-1.89	-2.76
2-Year Ahead EPS Growth		-7.99	-6.45	-3.32	-6.13	-1.47	-2.57
3-M Revision in FY2 EPS Forecasts	Earnings Momentum	6.28	0.60	4.31	0.14	5.37	2.07
Real Earnings Surprise		1.00	-0.31	0.12	2.53	-1.08	2.25
24-Month Value at Risk		12.71	10.42	7.63	11.64	10.00	4.28
5-day Industry Relative Return	Price Momentum	-6.92	-3.81	-1.31	-3.77	-4.67	-1.89
Industry-adjusted 12-month Relative Price Strength		11.24	8.58	7.51	4.98	2.24	3.50
Rational Decay Alpha		6.77	3.46	7.55	5.04	3.21	0.65
Demand Supply Ratio	Short Sentiment	6.26	6.58	5.90	5.71	2.85	4.44
Implied Loan Rate		3.67	3.13	-1.63	6.68	-1.00	2.25

Source: IHS Markit

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United States

US Large Cap

US manufacturing registered only a marginal improvement in operating conditions in May, with the PMI (50.5) dropping to its lowest reading since the height of the financial crisis, as new orders fell for the first time since August 2009. Weak demand and ongoing trade tensions led firms to express the lowest confidence regarding future output growth since data on the outlook were first collected in mid-2012. Trade tensions also plagued stocks, capping their worst month of the year.

Factors reversed course once again in May, with price momentum moving back to the top of the US Large Cap factor performance list (Table 2) and valuation measures falling back down to the bottom (Table 3). 1-Year Price Momentum Indicator (14.31%) was the leading performer, with a hefty double-digit spread (Figure 1) which had not been seen since June 2008. Outside of this group, other key factors include 1-Month Realized Stock Return Volatility (12.09%), a signal of risk aversion juxtaposed with the momentum trade, along with additional Earnings Momentum indicators (not shown here) such as Time Weighted Earnings Revision (8.54%). Conversely, valuation measures traversed the full return spread spectrum, with 60-Month Alpha (-10.38%) and Leading 12 Month Cash Yield (-10.22%) turning in the weakest performance.

Table 2

US Large Cap top decile return spread factor performance, May 2019

Factor	Decile spread (%)	Factor group
1-Year Price Momentum Indicator	14.31	Price Momentum
52-Week High	13.97	Price Momentum
6-Month Active Return with 1-Month Lag	13.83	Price Momentum
24-Month Residual Return Variance	13.46	Price Momentum
9-Month Active Return with 1-Month Lag	13.34	Price Momentum
24-Month Value at Risk	12.71	Price Momentum
39-Week Return with 4-week Lag	12.63	Price Momentum
Fama-French Momentum	12.31	Price Momentum
4-52 Week Price Oscillator	12.18	Price Momentum
Std Dev of FY2 EPS Estimates-to-Price	12.17	Earnings Momentum
1-Month Realized Stock Return Volatility	12.09	Liquidity, Risk & Size
12-Month Active Return with 1-month Lag	12.08	Price Momentum
30-75 Week Stock Price Ratio	12.03	Price Momentum
1-Month Stock Return Interquartile Range	11.91	Liquidity, Risk & Size
Product of Beta and Sigma	11.86	Liquidity, Risk & Size

Source: IHS Markit

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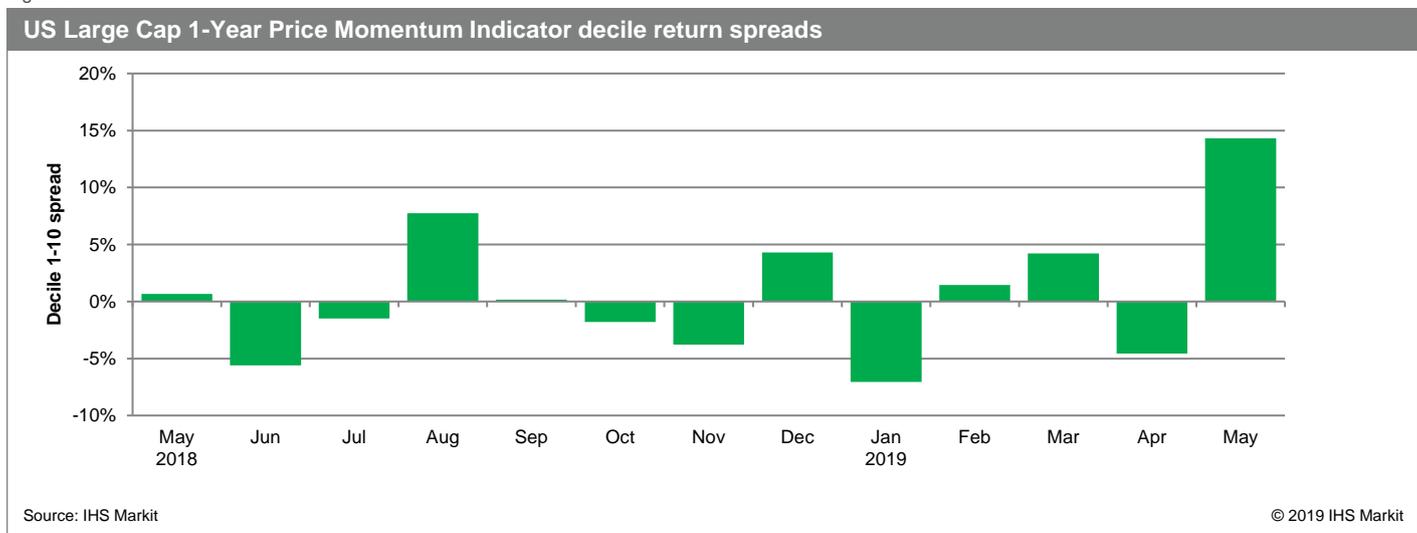
Table 3

US Large Cap bottom decile return spread factor performance, May 2019		
Factor	Decile spread (%)	Factor group
60-Month Alpha	-10.38	Price Momentum
Leading 12 Month Cash Yield	-10.22	Deep Value
Time Weighted EBITDA/ EV	-10.13	Deep Value
Leading 12 Month EBITDA/ EV	-10.02	Deep Value
TTM Sales-to-Enterprise Value	-9.67	Deep Value
Cash-to-Price	-9.57	Deep Value
Yield Curve Slope Sensitivity	-9.57	Macro
Time Weighted Sales Yield	-9.53	Deep Value
60-Month Active Return with 1-Month Lag	-9.48	Price Momentum
Leading 12 Month Sales Yield	-9.44	Deep Value

Source: IHS Markit

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Figure 1



Source: IHS Markit

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US Small Cap

Small cap factor performance closely resembled that of large caps among the top (Table 4) and bottom (Table 5) performing factors in May. 6-Month Active Return with 1-Month Lag (12.59%) and Leading 12 Month EBITDA/EV (-10.03%) are two such factors that represent the Price Momentum and Deep Value themes, respectively, and a view of the distribution of returns across deciles (Figure 2) demonstrates systematic trading around both signals. Again, looking beyond the Price Momentum group (results not shown here), strong return spreads were also associated with the risk-off trade and analyst outlook, captured by At the Money Call Option Implied Volatility (9.35%) and Time Weighted Earnings Revision (9.28%), respectively.

Table 4

US Small Cap top decile return spread factor performance, May 2019		
Factor	Decile spread (%)	Factor group
6-Month Active Return with 1-Month Lag	12.59	Price Momentum
4-52 Week Price Oscillator	12.14	Price Momentum
9-Month Active Return with 1-Month Lag	12.07	Price Momentum
24-Month Active Return with 1-Month Lag	11.49	Price Momentum
Std Dev of FY2 EPS Estimates-to-Price	11.46	Earnings Momentum
50-200 Day Stock Price Ratio	11.37	Price Momentum
52-Week High	11.21	Price Momentum
18-Month Active Return with 1-Month Lag	11.06	Price Momentum
39-Week Return with 4-week Lag	11.06	Price Momentum
15/36 Week Stock Price Ratio	10.93	Price Momentum
26-Week Relative Price Strength	10.49	Price Momentum
24-Month Value at Risk	10.42	Price Momentum
1-Year Price Momentum Indicator	10.21	Price Momentum
20-Day Volume Volatility to Price Volatility	10.09	Liquidity, Risk & Size
30-75 Week Stock Price Ratio	9.82	Price Momentum

Source: IHS Markit

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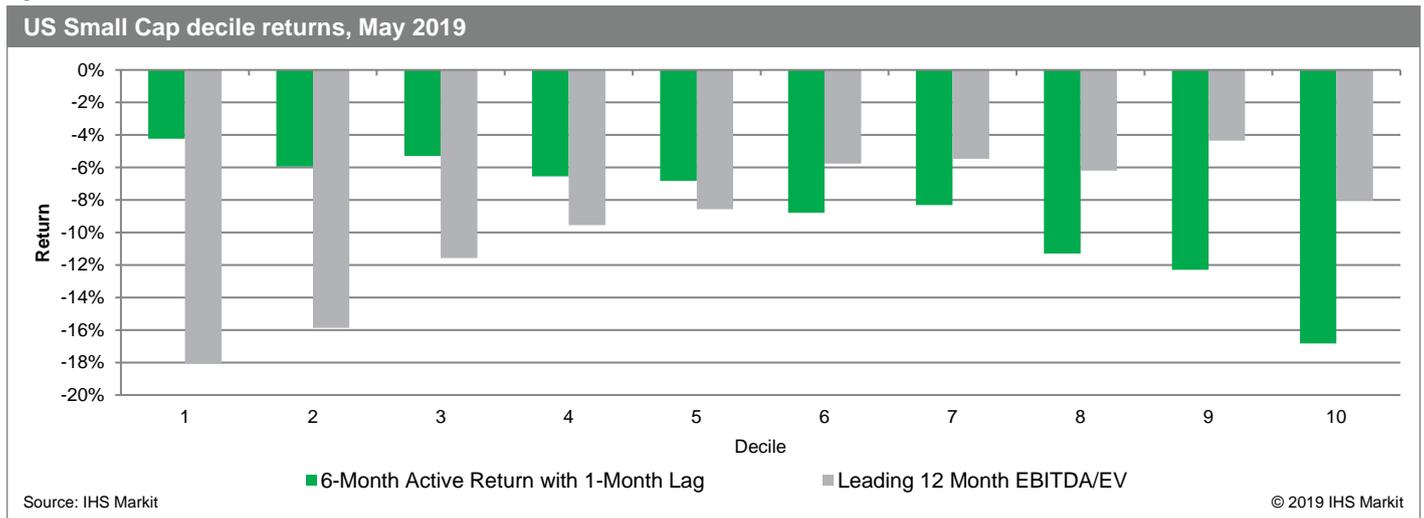
Table 5

US Small Cap bottom decile return spread factor performance, May 2019		
Factor	Decile spread (%)	Factor group
Leading 12 Month Book Yield	-10.98	Deep Value
36-Month Sharpe Ratio	-10.29	Price Momentum
Leading 12 Month EBITDA/ EV	-10.03	Deep Value
Price-to-Book Return-on-Equity Combination (PB-ROE)	-10.03	Deep Value
Time Weighted Sales Yield	-10.01	Deep Value
60-Month Alpha	-9.94	Price Momentum
3-Month Active Return	-9.22	Price Momentum
Leading 12 Month Sales Yield	-9.18	Deep Value
Sortino Ratio	-9.08	Price Momentum
36-Month Active Return with 1-Month Lag	-9.08	Price Momentum

Source: IHS Markit

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Figure 2



Source: IHS Markit

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Europe

The eurozone manufacturing sector continued to contract in May, with the PMI (47.7) posting below the 50.0 no-change mark for a fourth consecutive month. Weakness remained centered on the intermediate and investment goods sectors, contrasting noticeably with the performance of the consumer goods category, where growth was sustained to a modest degree. At the country level, Germany continues to lead the downturn, while Greece remained the best performing country. Equity markets could not maintain their positive monthly trend in May, turning south for the first such period in 2019.

European markets followed suit with the US, as Price Momentum and valuation signals dominated the top (Table 6) and bottom (Table 7) factor performance lists, respectively, in addition to an investor preference for low volatility shares. Asia-Pacific Sales Exposure (-7.57%) is another factor of interest, where returns to stocks with the most exposure to the region underperformed by the largest margin since September 2008. Lastly, we draw attention to Short Sentiment signals which fell just below the leaderboard cutoff including Short Interest (7.05%), whose decile return distribution (Figure 3) is indicative of investor attention to the securities lending market.

Table 6

Developed Europe top decile return spread factor performance, May 2019

Factor	Decile spread (%)	Factor group
30-75 Week Stock Price Ratio	12.53	Price Momentum
9-Month Active Return with 1-Month Lag	12.10	Price Momentum
12-Month Active Return with 1-month Lag	11.67	Price Momentum
39-Week Return with 4-week Lag	11.56	Price Momentum
6-Month Active Return with 1-Month Lag	10.92	Price Momentum
1-Year Price Momentum Indicator	10.77	Price Momentum
Fama-French Momentum	10.76	Price Momentum
Slope of 66 Week Price Trend Line	10.38	Price Momentum
18-Month Active Return with 1-Month Lag	10.28	Price Momentum
60-Month Beta	10.04	Liquidity, Risk & Size
Slope of 52 Week Price Trend Line	9.72	Price Momentum
24-Month Active Return with 1-Month Lag	9.04	Price Momentum
52-Week High	8.96	Price Momentum
Product of Beta and Sigma	8.92	Liquidity, Risk & Size
50-200 Day Stock Price Ratio	8.51	Price Momentum

Source: IHS Markit

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Table 7

Developed Europe bottom decile return spread factor performance, May 2019

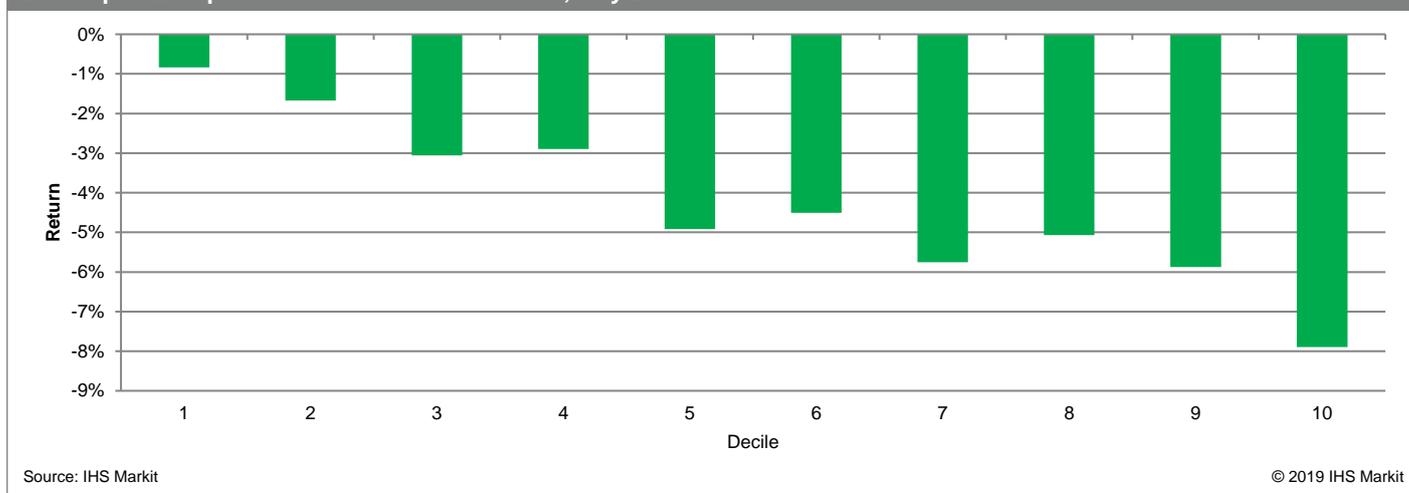
Factor	Decile spread (%)	Factor group
5-yr Relative TTM Sales-to-Price	-8.58	Relative Value
5-yr Relative TTM Dividend Yield	-8.46	Relative Value
Leading 12 Month EBITDA/ EV	-7.97	Deep Value
5-yr Relative Leading 12-Month Earnings Yield	-7.84	Relative Value
Time Weighted EBITDA/ EV	-7.81	Deep Value
5-yr Relative Book-to-Market	-7.66	Relative Value
Asia-Pacific Sales Exposure	-7.57	Macro
60-Month Active Return with 1-Month Lag	-7.32	Price Momentum
Leading 12 Month Sales Yield	-7.24	Deep Value
60-Month Alpha	-7.20	Price Momentum

Source: IHS Markit

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Figure 3

Developed Europe Short Interest decile returns, May 2019



Source: IHS Markit

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Asia-Pacific

The Japanese manufacturing PMI returned below the 50.0 no change mark in May, resulting in the two largest Asian economies of Japan and China once again on opposite sides of the neutral mark. The headline PMI in Japan edged lower to 49.8, from 50.2 during April, as domestic and external demand conditions deteriorated. In China, the manufacturing PMI remained unchanged at 50.2, on broadly stable production and slight increases in total new work and export sales. Similar, equity markets in China were mostly stable, while stocks in Japan tumbled in May.

In developed Pacific markets outside Japan, the risk-off trade was the most highly rewarded in May. 24-Month Value at Risk (11.64%) topped the factor leaderboard (Table 8), as performance reached a level not seen since October 2018 amid similar steep market declines (Figure 4). Strong corporate fundamentals were also a desired feature, as gauged by NOPAT Margin (8.50%) and 1-yr Growth in TTM Earnings per Share (7.82%). On the other hand, the weakest performing factors in May (Table 9) include a handful of Deep Value measures including Cash-to-Price (-6.57%) and Time Weighted Sales Yield (-6.45%).

In Japan, May factor performance at the top (Table 10) and bottom (Table 11) tails took on similar themes as the broader region, favoring low volatility, led by Product of Beta and Sigma (11.34%), at the expense of Deep Value, represented by TTM Sales-to-Price (-7.63%). Exchange rates were also an important aspect of factor performance, where we compare and contrast stocks exposed to the local currency captured by Asia-Pacific (6.87%) and EMEA (-8.44%) Sales Exposure (Figure 5).

Table 8

Developed Pacific exJapan top decile return spread factor performance, May 2019

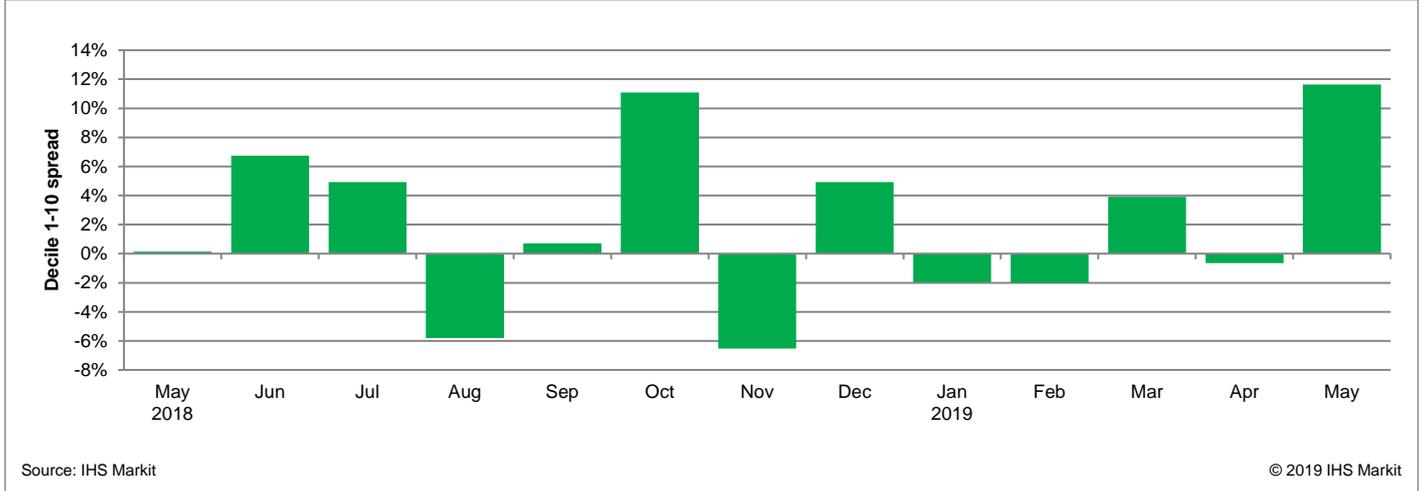
Factor	Decile spread (%)	Factor group
24-Month Value at Risk	11.64	Price Momentum
52-Week High	11.16	Price Momentum
30-75 Week Stock Price Ratio	10.46	Price Momentum
Short Loan Concentration	9.78	Short Sentiment
Stock Return Volatility	9.74	Liquidity, Risk & Size
12-Month Active Return with 1-month Lag	9.64	Price Momentum
Regression Error of 60-Month CAPM	9.42	Liquidity, Risk & Size
Product of Beta and Sigma	9.28	Liquidity, Risk & Size
Fama-French Momentum	8.63	Price Momentum
NOPAT Margin	8.50	Management Quality
24-Month Residual Return Variance	7.91	Price Momentum
1-yr Growth in TTM Earnings per Share	7.82	Historical Growth
Return on Invested Capital	7.72	Management Quality
39-Week Return with 4-week Lag	7.57	Price Momentum
Cash Flow Return on Invested Capital	7.35	Management Quality

Source: IHS Markit

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Figure 4

Developed Pacific exJapan 24-Month Value at Risk decile return spreads



Source: IHS Markit

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Table 9

Developed Pacific exJapan bottom decile return spread factor performance, May 2019

Factor	Decile spread (%)	Factor group
Supply Volatility	-7.39	Short Sentiment
Natural Logarithm of TTM Sales	-6.84	Liquidity, Risk & Size
Attention Span Ratio	-6.58	Management Quality
Cash-to-Price	-6.57	Deep Value
Demand Value Concentration	-6.53	Short Sentiment
Time Weighted Sales Yield	-6.45	Deep Value
Market Cap per Analyst	-6.37	Liquidity, Risk & Size
Leading 12 Month Sales Yield	-6.35	Deep Value
2-Year Projected EPS Growth	-6.17	Earnings Momentum
Cash to Enterprise Value	-6.16	Deep Value

Source: IHS Markit

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Table 10

Japan Standard Cap top decile return spread factor performance, May 2019

Factor	Decile spread (%)	Factor group
Product of Beta and Sigma	11.34	Liquidity, Risk & Size
60-Month Beta	10.59	Liquidity, Risk & Size
Stock Return Volatility	10.05	Liquidity, Risk & Size
24-Month Value at Risk	10.00	Price Momentum
Inventory-to-Total Assets	8.93	Management Quality
30-75 Week Stock Price Ratio	8.75	Price Momentum
1-Month Stock Return Interquartile Range	8.74	Liquidity, Risk & Size
Std Dev of FY2 EPS Estimates-to-Price	8.69	Earnings Momentum
Slope of 66 Week Price Trend Line	7.66	Price Momentum
60-Day Residual Risk	7.43	Liquidity, Risk & Size
CV of Prior 90-Day Closing Prices	7.14	Price Momentum
52-Week High	6.93	Price Momentum
Asia-Pacific Sales Exposure	6.87	Macro
Regression Error of 60-Month CAPM	6.81	Liquidity, Risk & Size
1-Month Realized Stock Return Volatility	6.73	Liquidity, Risk & Size

Source: IHS Markit

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Table 11

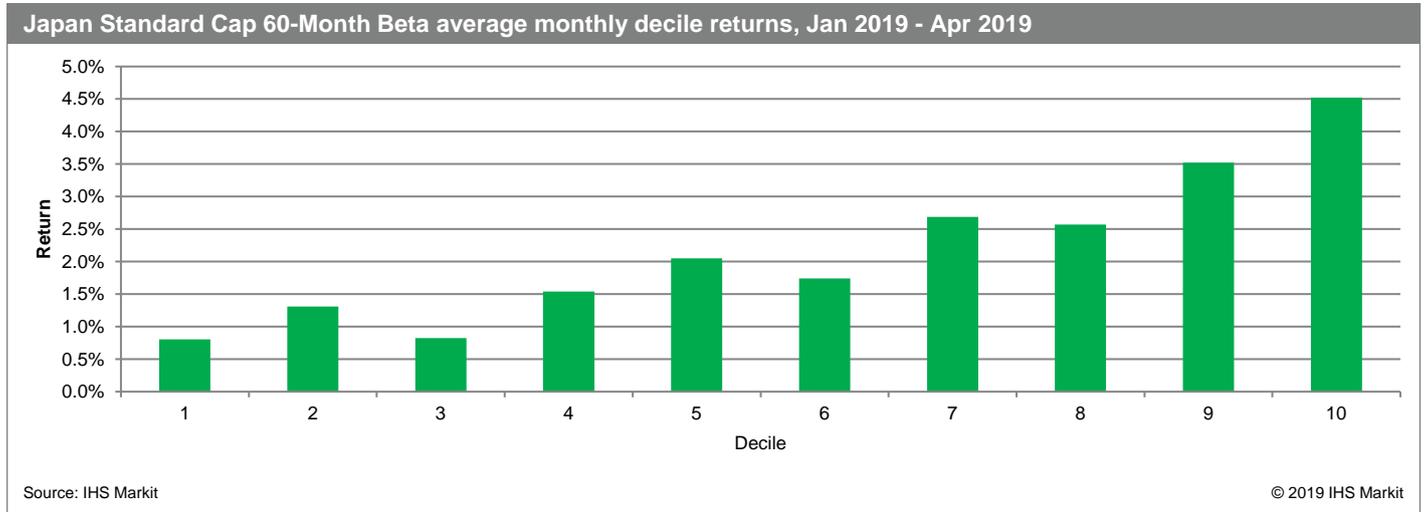
Japan Standard Cap bottom decile return spread factor performance, May 2019

Factor	Decile spread (%)	Factor group
EMEA Sales Exposure	-8.44	Macro
TTM Sales-to-Price	-7.63	Deep Value
Time Weighted Cash Yield	-7.36	Deep Value
TTM EBITDA-to-Price	-6.76	Deep Value
Time Weighted Sales Yield	-6.64	Deep Value
Leading 12 Month Sales Yield	-6.49	Deep Value
Time Weighted EBITDA/ EV	-6.34	Deep Value
Current Liabilities-to-Price	-6.31	Liquidity, Risk & Size
Average Payable Period	-6.27	Management Quality
TTM Sales-to-Enterprise Value	-5.80	Deep Value

Source: IHS Markit

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Figure 5



Emerging Markets

Lastly, turning to top (Table 12) and bottom (Table 13) performing factors in emerging markets in May, we find broad consistencies with our other coverage universes. In particular, we highlight 52-Week High (5.37%) and 60-Month Beta (4.14%) which demonstrate an aversion to stocks trading furthest from their annual high in addition to high beta names (Figure 6). At the same time, high valuation was not a deterrent, as measures such as Cash to Enterprise Value (-3.54%) and 60-Month Active Return with 1-Month Lag (-3.16%) occupied the laggard board.

Table 12

Emerging Markets top quintile return spread factor performance, May 2019

Factor	Decile spread (%)	Factor group
52-Week High	5.37	Price Momentum
Trading Turnover Ratio	5.24	Liquidity, Risk & Size
Average Trading Volume in Preceding 6-month	5.10	Price Momentum
30-75 Week Stock Price Ratio	5.10	Price Momentum
9-Month Active Return with 1-Month Lag	4.64	Price Momentum
Product of Beta and Sigma	4.63	Liquidity, Risk & Size
24-Month Residual Return Variance	4.55	Price Momentum
39-Week Return with 4-week Lag	4.40	Price Momentum
24-Month Value at Risk	4.28	Price Momentum
1-Year Price Momentum Indicator	4.17	Price Momentum
60-Month Beta	4.14	Liquidity, Risk & Size
Std Dev of FY2 EPS Estimates-to-Price	4.11	Earnings Momentum
Distress Measure	3.98	Liquidity, Risk & Size
CV of Prior 90-Day Closing Prices	3.78	Price Momentum
60-Day Residual Risk	3.78	Liquidity, Risk & Size

Source: IHS Markit

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Table 13

Emerging Markets bottom quintile return spread factor performance, May 2019

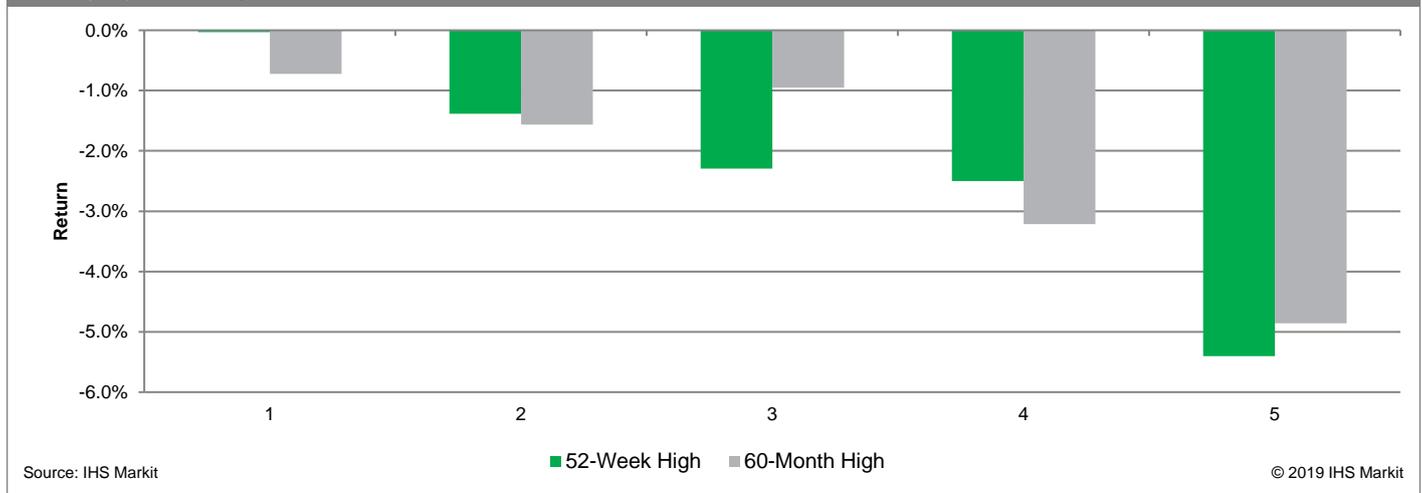
Factor	Decile spread (%)	Factor group
Average Monthly Trading Volume-to-Market Cap	-4.76	Liquidity, Risk & Size
Attention Span Ratio	-3.75	Management Quality
Cash to Enterprise Value	-3.54	Deep Value
60-Month Active Return with 1-Month Lag	-3.16	Price Momentum
Cash-to-Price	-3.13	Deep Value
Credit Risk Premium Sensitivity	-3.13	Macro
Natural Logarithm of Closing Price	-3.08	Liquidity, Risk & Size
Net Debt to EBITDA	-2.95	Management Quality
TTM Sales-to-Enterprise Value	-2.87	Deep Value
Natural Logarithm of Market Capitalization	-2.76	Liquidity, Risk & Size

Source: IHS Markit

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Figure 6

Emerging Markets quintile returns, May 2019



Source: IHS Markit

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