Negotiating the value trade

July 2018

Research Signals

Trade tensions between the world's two largest economies have weighed on sentiment across global equity markets for several months and continue to drive markets, as valuation and securities lending indicators were strong performing signals across most of our coverage universes, while price momentum lagged (Table 1). In the meantime, investors hope for positive trade negotiations and carefully watch for the impact on relatively strong earnings and PMI data across US and European markets, as global manufacturing slowed again in July, with the J.P. Morgan Global Manufacturing PMITM posting its lowest reading for one year.

- US: Investors shied away from high risk names measured by 24-Month Value at Risk, while small caps underperformed, particularly the microcaps, as confirmed by Natural Logarithm of Market Capitalization
- Developed Europe: Small caps also underperformed in European markets, along with overvalued names captured by Industry Relative Leading 4-QTRs EPS to Price
- Developed Pacific: Book-to-Market was a highly rewarded indicator, especially in Japan which experienced a 15.9 percentage point swing in spread performance since May
- Emerging markets: TTM EBITDA-to-Enterprise Value and Demand Supply Ratio were positive signals, while Rational Decay Alpha spread performance was negative

Global factor quantile return spread performance snapshot, Jul 2018

Factor	Factor Group	US Large Cap	US Small Cap	Developed Europe	Developed Pacific ex Japan	Japan Standard Cap	Emerging Markets
Book-to-Market	•	0.77	1.12	1.57	4.45	6.23	1.02
Forward 12-M EPS-to-Enterprise Value		2.00	5.68	1.67	3.02	3.40	1.06
TTM EBITDA-to-Enterprise Value	 Deep Value 	0.75	3.59	0.65	4.44	2.15	2.27
TTM Free Cash Flow-to-Enterprise Value	_	1.67	3.09	-1.22	2.66	1.07	1.32
Industry Relative Leading 4-QTRs EPS to		1.86	2.49	2.63	1.85	4.23	0.69
Industry Relative TTM Dividend Yield	 Relative Value 	2.66	0.19	1.04	1.92	4.00	0.51
Fixed Assets Turnover Ratio		2.25	1.73	1.17	-1.69	-0.27	-0.10
Inventory Turnover Ratio	Management Quality	0.00	2.16	-0.34	0.87	-1.65	0.44
Net Operating Asset Turnover	_	0.44	3.42	0.46	-2.98	-2.64	0.02
Change in Accruals to Assets		-0.80	-0.90	0.29	0.14	0.75	0.00
Change in TTM COGS vs. Inventory Level	_	1.43	0.60	0.30	2.19	2.03	0.68
Change in TTM Sales vs. Accounts Receivable	Earnings Quality	-0.62	-1.12	-1.74	0.86	2.24	0.87
Working Capital Accruals		0.93	0.53	2.33	0.89	0.08	0.87
1-yr Growth in TTM Free Cash Flow	- Historiaal Growth	-0.02	0.36	-0.56	3.33	-1.39	0.79
Reinvestment Rate	- Historical Growth	1.57	1.62	0.46	-0.29	1.11	1.27
Average Monthly Trading Volume-to-	_	-3.10	-6.03	-0.35	0.98	1.46	0.38
60-Month Beta	_	-3.06	1.48	-1.85	-3.40	-3.81	-2.38
Asset Quality Index	Liquidity, Risk & Size	0.63	-1.10	0.16	-0.87	-1.95	-0.58
Operating Leverage		0.70	-0.85	1.87	-1.48	0.06	-0.08
Natural Logarithm of Market Capitalization	_	-1.93	-4.54	-3.05	1.76	-0.07	-2.21
2-Year Ahead EPS Growth		1.60	-1.48	0.98	-2.03	-0.64	0.46
3-M Revision in FY2 EPS Forecasts	Earnings Momentum	-2.09	-0.95	-0.89	-1.97	-1.88	-1.35
Real Earnings Surprise	_	-0.26	-0.92	-1.53	0.44	0.10	1.15
24-Month Value at Risk		1.92	3.13	-0.94	4.92	1.19	-1.54
5-day Industry Relative Return	_	0.87	-0.98	0.94	-0.43	-0.96	2.96
Industry-adjusted 12-month Relative Price Strength	Price Momentum	-2.10	1.58	-0.55	-2.52	-5.56	-0.28
Rational Decay Alpha		-2.87	1.53	-1.13	1.07	-2.84	-1.16
Demand Supply Ratio	 Short Sentiment 	2.03	3.84	-0.71	4.18	2.47	3.76
Implied Loan Rate	Short Sentiment	0.19	4.32	-1.03	2.73	1.63	1.75

Source: IHS Markit

United States

US Large Cap

The July manufacturing PMI dipped to a five-month low of 55.3, down slightly from 55.4 in June. The effects of tariffs contributed again to another sharp rise in input prices and exports deteriorated; however, these headwinds were offset by strong domestic demand. Stocks posted a fourth consecutive month of positive gains despite the trade dispute on strong earnings reports and solid consumer spending and outlook.

A broad set of themes were represented on the list of top performing factors in the US Large Cap universe in July (Table 2), led by Price Above Last 260-day Lowest Trading Price (5.35%). Stocks which were associated with high risk, strong recent price appreciation and overvaluation, captured respectively by Regression Error of 60-Month CAPM (5.34%), 3-Month Active Return (4.08%) and TTM Sales-to-Price (3.81%), were strongly disfavored, with particularly weak returns concentrated in decile 10 (Figure 1). High medium-term momentum names also underperformed for a second month, resulting in Price Momentum's extensive representation on the list of bottom performing factors (Table 3). 26-Week Relative Price Strength (-4.48%) was the weakest performer and, in this case, demonstrated a clear concentration of underperformers in decile 1 (Figure 1).

Table 2

Factor	Decile spread (%)	Factor group
Price Above Last 260-day Lowest Trading Price	5.35	Price Momentum
Regression Error of 60-Month CAPM	5.34	Liquidity, Risk & Size
3-Month Active Return	4.08	Price Momentum
Natural Logarithm of TTM Sales	3.82	Liquidity, Risk & Size
TTM Sales-to-Price	3.81	Deep Value
Stock Return Volatility	3.80	Liquidity, Risk & Size
FY2 EPS Forecast Dispersion	3.75	Earnings Momentum
Industry Relative TTM EPS-to-Price	3.50	Relative Value
Forward Return on Equity	3.42	Management Quality
TTM Sales-to-Enterprise Value	3.38	Deep Value
2-Month Active Return	3.36	Price Momentum
1-Month Realized Stock Return Volatility	3.35	Liquidity, Risk & Size
TTM Capital Expenditures-to-Sales	3.35	Management Quality
60-Month Alpha	3.33	Price Momentum
Time Weighted Earnings Yield	3.28	Deep Value

Source: IHS Markit

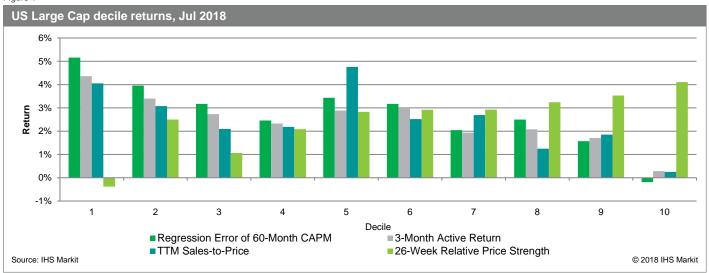


Figure 1

Table 3

Factor	Decile spread (%)	Factor group
26-Week Relative Price Strength	-4.48	Price Momentum
50-200 Day Stock Price Ratio	-4.39	Price Momentum
6-Month Nominal Change in 18-Month Alpha	-4.28	Price Momentum
6-Month Active Return with 1-Month Lag	-3.87	Price Momentum
15/36 Week Stock Price Ratio	-3.79	Price Momentum
39-Week Return with 4-week Lag	-3.56	Price Momentum
9-Month Active Return with 1-Month Lag	-3.50	Price Momentum
Unexpected Profitability	-3.21	Management Quality
4-52 Week Price Oscillator	-3.14	Price Momentum
Average Monthly Trading Volume-to-Market Cap	-3.10	Liquidity, Risk & Size

Source: IHS Markit

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US Small Cap

Valuation and low risk were key themes for small caps in July, running the totality of the list of top performers (Table 4). Predicted Dividend Yield (7.25%) and 1-Month Realized Stock Return Volatility (5.46%) were two such factors and, as with large caps, saw decile 10 names drive signal content (Figure 2). Interestingly, the weakest performing signals (Table 5) include several long-term price reversal measures including 60-Month Active Return with 1-Month Lag (-6.18%). While valuation was rewarded based on fundamentals, purely technical valuation was not (Figure 2).

US Small Cap top decile return spread factor performance, Jul 2018

Factor	Decile spread (%)	Factor group
Predicted Dividend Yield	7.25	Deep Value
Current Earnings Yield	6.31	Deep Value
Leading 12-Month Mean Earnings Yield	6.20	Deep Value
Std Dev of FY2 EPS Estimates-to-Price	6.05	Earnings Momentum
Time Weighted Earnings Yield	5.98	Deep Value
TTM Pro Forma Earnings-to-Price	5.92	Deep Value
Leading 12-Month Median Earnings Yield	5.87	Deep Value
1-Month Stock Return Interquartile Range	5.78	Liquidity, Risk & Size
Forward 12-M EPS-to-Enterprise Value	5.68	Deep Value
1-Month Realized Stock Return Volatility	5.46	Liquidity, Risk & Size
TTM EPS before Extra Items-to-Price	5.25	Deep Value
TTM EPS after Extra Items-to-Price	5.24	Deep Value
Distress Measure	5.13	Liquidity, Risk & Size
60-Day Residual Risk	5.11	Liquidity, Risk & Size
Edwards-Bell-Ohlson Value-to-Price	5.04	Deep Value
Source: IHS Markit		© 2018 IHS Ma

Figure 2

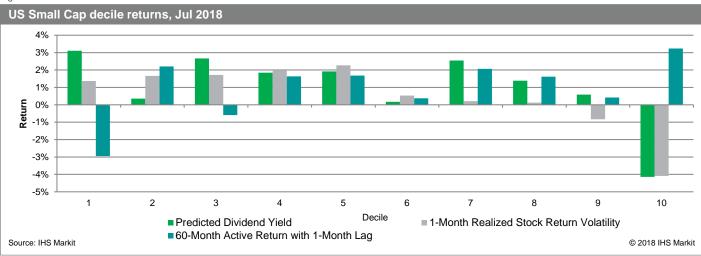


Table 5

US Small Cap bottom decile return spread factor performance, Jul 2018

Factor	Decile spread (%)	Factor group
60-Month Active Return with 1-Month Lag	-6.18	Price Momentum
Average Monthly Trading Volume-to-Market Cap	-6.03	Liquidity, Risk & Size
Ohlson Bankruptcy Score	-5.99	Liquidity, Risk & Size
60-Month Active Return with 12-Month Lag	-5.26	Price Momentum
Natural Logarithm of Closing Price	-4.90	Liquidity, Risk & Size
Natural Logarithm of Market Capitalization	-4.54	Liquidity, Risk & Size
Attention Span Ratio	-4.51	Management Quality
Flow Ratio	-4.05	Liquidity, Risk & Size
60-Month Alpha	-3.90	Price Momentum
Cash-to-Price	-3.74	Deep Value

Source: IHS Markit

Europe

Eurozone manufacturing growth remained subdued at the start of the third quarter, with the PMI posting at 55.1 on a slight uptick from 54.9 in June, as the reading, while relatively positive overall, sits over five points below the record high registered at the end of 2017. The Netherlands, Germany and Austria remain the strongest performing nations. New export growth increased at the slowest pace since August 2016 amid concerns about tariffs and trade wars, a theme that contributed to declines in European stocks the prior month; however, in July, stocks recorded their first monthly gain since April.

Valuation was also a highly rewarded strategy in European markets in July (Table 6), including factors such as Time Weighted Sales Yield (3.47%) and Industry Relative Book-to-Market (2.97%). Yet, top honors were awarded to 2-Year Projected EPS Growth (3.66%), which posted its highest spread since January of this year (Figure 3), which in turn was its best performance since the peak of the internet bubble. Two factors of interest on the laggard board (Table 7) include Natural Logarithm of Market Capitalization (-3.05%), as small caps lagged large caps, and Asia-Pacific Sales Exposure (-2.87%), as the Chinese yuan trades at a multi-year low versus the euro.

Table 6

Factor	Decile spread (%)	Factor group
2-Year Projected EPS Growth	3.66	Earnings Momentum
Natural Logarithm of Total Assets	3.56	Liquidity, Risk & Size
Time Weighted Sales Yield	3.47	Deep Value
Leading 12 Month Sales Yield	3.38	Deep Value
Market Cap per Analyst	3.28	Liquidity, Risk & Size
Short Concentration Ratio	3.14	Short Sentiment
Natural Logarithm of TTM Sales	3.07	Liquidity, Risk & Size
2-Month Active Return	3.06	Price Momentum
Industry Relative Book-to-Market	2.97	Relative Value
Forward Free Cash Flow-to-Price	2.94	Deep Value
On Loan Value Concentration	2.73	Short Sentiment
Time Weighted EBITDA/ EV	2.63	Deep Value
Industry Relative Leading 4-QTRs EPS to Price	2.63	Relative Value
Market Leverage	2.40	Liquidity, Risk & Size
Leading 12-Month Mean Earnings Yield	2.37	Deep Value

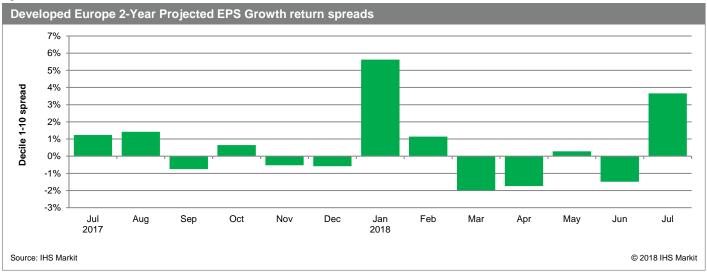


Figure 3

Table 7

Developed Europe bottom of	lecile return spread factor	performance, Jul 2018

Factor	Decile spread (%)	Factor group
Stock Illiquidity	-4.05	Liquidity, Risk & Size
Natural Logarithm of Market Capitalization	-3.05	Liquidity, Risk & Size
Asia-Pacific Sales Exposure	-2.87	Macro
Time Weighted Earnings Revision	-2.51	Earnings Momentum
Quick Ratio	-2.50	Liquidity, Risk & Size
Current Cash Flow Debt Coverage Ratio	-2.42	Liquidity, Risk & Size
1-yr Growth in TTM Oper Cash Flow	-2.30	Historical Growth
6-Month Active Return with 1-Month Lag	-2.29	Price Momentum
Debt to Market Cap	-2.24	Liquidity, Risk & Size
Product of TTM FCF Yield and Forward ROE	-2.24	Earnings Momentum

Source: IHS Markit

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Asia-Pacific

Manufacturing growth slowed to recent lows among the two largest Asian economies of Japan and China. Japan remained the stronger of the two, though the PMI slipped to an 11-month low of 52.3, down from 53.0 in June, on weaker demand from both domestic and international clients. Operating conditions in China fell to an 8-month low of 50.8, down from 51.0 in June, as trade war concerns weighed on optimism. Stocks were modestly higher in the two countries in July, though Chinese stocks remained among the weakest performers for the year as investors watch for further developments in the trade dispute.

Valuation measures also outperformed in developed Asia-Pacific markets. Outside of Japan, top performing factors in July (Table 8) included 5-yr Relative TTM Cash Flow-to-Price (5.69%) and Price-to-Book Return-on-Equity Combination (5.45%). However, the top measure was Net Profit Margin (5.80%) which has posted four consecutive months of increasing spreads cumulating to 15.7%. Conversely, Price Momentum metrics such as 15/36 Week Stock Price Ratio (-4.94%) and Slope of 52 Week Price Trend Line were among the weakest performing factors for the month (Table 9).

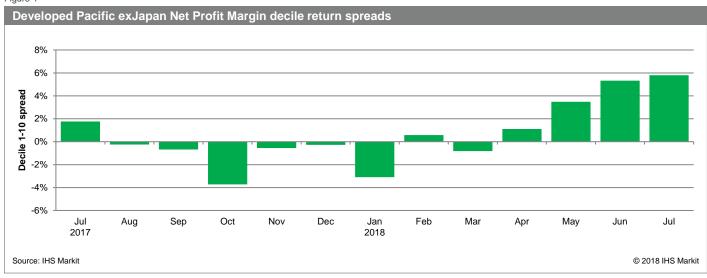
In Japan, valuation was a more prevalent signal, occupying the majority of positions on the factor leaderboard in July (Table 10). Price-to-Book Return-on-Equity Combination (7.55%) was the top performer with a 16.5% swing in spread performance from May to July (Figure 5). At the opposite extreme, Price Momentum measures were once again among the weakest performers (Table 11), with Industry-adjusted 12-month Relative Price Strength at the top of the list, experiencing a similar significant swing in spread performance since May of -13.1% (Figure 5).

Table 8

Factor	Decile spread (%)	Factor group
Net Profit Margin	5.80	Management Quality
5-yr Relative TTM Cash Flow-to-Price	5.69	Relative Value
Price-to-Book Return-on-Equity Combination (PB-ROE)	5.45	Deep Value
Tobin q	5.41	Liquidity, Risk & Size
Graham Number Fair Value Premium	5.36	Deep Value
Altman Z Score	5.31	Liquidity, Risk & Size
60-Month Alpha	5.27	Price Momentum
5-yr Relative Book-to-Market	5.19	Relative Value
5-yr Relative TTM EBITDA-to-Price	4.98	Relative Value
24-Month Value at Risk	4.92	Price Momentum
_eading 12 Month EBITDA/ EV	4.89	Deep Value
Pretax Return on Net Operating Assets	4.87	Management Quality
TTM Operating Income to Enterprise Value	4.84	Deep Value
Long-Term Growth Rate Estimates	4.82	Earnings Momentum
1-Month Realized Stock Return Volatility	4.75	Liquidity, Risk & Size

Source: IHS Markit

Figure 4



Factor	Decile spread (%)	Factor group
15/36 Week Stock Price Ratio	-4.94	Price Momentum
Slope of 52 Week Price Trend Line	-4.66	Price Momentum
50-200 Day Stock Price Ratio	-4.32	Price Momentum
Inverse of PEG Ratio	-4.14	Earnings Momentum
Market Cap per Analyst	-4.13	Liquidity, Risk & Size
Equity Turnover Ratio	-3.92	Management Quality
1-Year Price Momentum Indicator	-3.62	Price Momentum
39-Week Return with 4-week Lag	-3.53	Price Momentum
60-Month Beta	-3.40	Liquidity, Risk & Size
Assets Turnover Ratio	-3.14	Management Quality

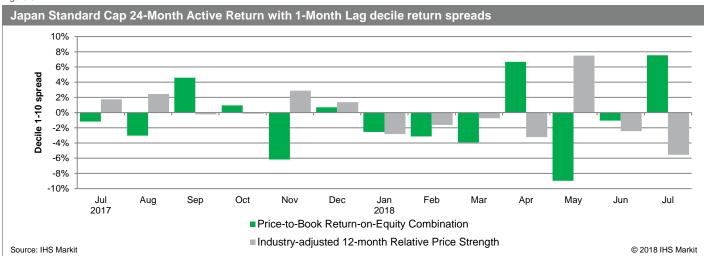
Table 10

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Factor	Decile spread (%)	Factor group
Price-to-Book Return-on-Equity Combination (PB-ROE)	7.55	Deep Value
TTM Growth Flow-to-Price	6.78	Deep Value
Graham Number Fair Value Premium	6.71	Deep Value
Book-to-Market	6.23	Deep Value
Price-to-Total Assets	6.13	Deep Value
Price Above Last 260-day Lowest Trading Price	6.05	Price Momentum
Tobin q	5.80	Liquidity, Risk & Size
TTM EPS before Extra Items-to-Price	5.73	Deep Value
TTM EPS after Extra Items-to-Price	5.72	Deep Value
Normalized Earnings Yield	5.68	Deep Value
TTM Core Earnings-to-Price	5.64	Deep Value
5-yr Relative Leading 12-Month Earnings Yield	5.43	Relative Value
Net Asset Value to Price	5.30	Deep Value
5-yr Relative Book-to-Market	5.24	Relative Value
Time Weighted Earnings Yield	5.18	Deep Value







Factor	Decile spread (%)	Factor group
Industry-adjusted 12-month Relative Price Strength	-5.56	Price Momentum
26-Week Relative Price Strength	-5.50	Price Momentum
50-200 Day Stock Price Ratio	-5.39	Price Momentum
6-Month Active Return with 1-Month Lag	-5.33	Price Momentum
12-Month Active Return with 1-month Lag	-4.90	Price Momentum
1-Year Price Momentum Indicator	-4.89	Price Momentum
15/36 Week Stock Price Ratio	-4.55	Price Momentum
Assets Turnover Ratio	-4.44	Management Quality
9-Month Active Return with 1-Month Lag	-4.16	Price Momentum
Std Dev of FY1 EPS Estimates-to-Price	-3.96	Earnings Momentum

Source: IHS Markit

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Emerging Markets

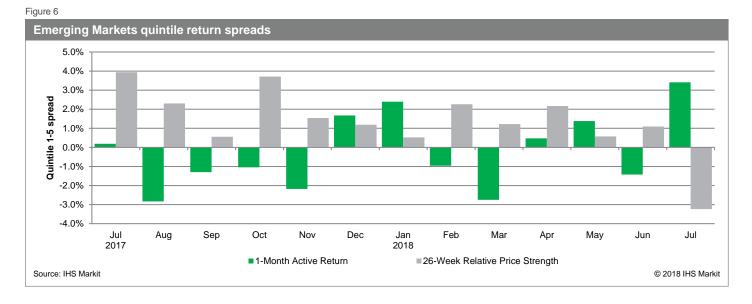
We wrap up the report with a review of top (Table 12) and bottom (Table 13) performing factors in emerging markets in July. Top factor performers aligned with our other coverage universes, with valuation a positive signal for the month. Deep Value was represented by measures such as TTM Core Earnings-to-Price (2.64%) and TTM Cash Flowto-Price (2.39%). The top theme for the month, though, was short-term price reversal, which occupied the top seven positions on the leaderboard. 1-Month Active Return (3.41%) led the way with a 4.8 percentage point jump in spread from the prior month, following a year of underperformance on average (Figure 6).

Conversely, medium Price Momentum metrics were among the laggards for the month, including 26-Week Relative Price Strength (-3.23%), breaking its 16-month string of positive spreads (Figure 6). Lastly, the weakest performing factor for the month was EMEA Sales Exposure (-3.53%), which has posted negative spreads in three of the last four months with an average spread of -2.10% over the period.

Table 12

Emerging Markets top guintile return spread factor performance. Jul 2018

Factor	Decile spread (%)	Factor group
1-Month Active Return	3.41	Price Momentum
14 Day Relative Strength Index	3.37	Price Momentum
2-Month Active Return	3.27	Price Momentum
4-week Industry Relative Return	3.09	Price Momentum
3-Month Active Return	2.99	Price Momentum
5-day Industry Relative Return	2.96	Price Momentum
Price Above Last 260-day Lowest Trading Price	2.67	Price Momentum
Natural Logarithm of Total Assets	2.66	Liquidity, Risk & Size
TTM Core Earnings-to-Price	2.64	Deep Value
Natural Logarithm of TTM Sales	2.55	Liquidity, Risk & Size
Number of Analyst Coverage	2.54	Liquidity, Risk & Size
TTM Pretax Income-to-Price	2.46	Deep Value
TTM EPS before Extra Items-to-Price	2.45	Deep Value
TTM EPS after Extra Items-to-Price	2.42	Deep Value
TTM Cash Flow-to-Price	2.39	Deep Value
Source: IHS Markit		© 2018 IHS M



Emerging Markets bottom quintile return spread factor performance, Jul 2018

Factor	Decile spread (%)	Factor group
EMEA Sales Exposure	-3.53	Macro
6-Month Nominal Change in 18-Month Alpha	-3.52	Price Momentum
26-Week Relative Price Strength	-3.23	Price Momentum
20-Day Volume Volatility to Price Volatility	-2.76	Liquidity, Risk & Size
15/36 Week Stock Price Ratio	-2.75	Price Momentum
6-Month Nominal Change in 12-Month Alpha	-2.68	Price Momentum
6-Month Nominal Change in 36-Month Alpha	-2.60	Price Momentum
6-Month Active Return with 1-Month Lag	-2.39	Price Momentum
60-Month Beta	-2.38	Liquidity, Risk & Size
50-200 Day Stock Price Ratio	-2.37	Price Momentum

Source: IHS Markit

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