

Im-patient factor returns

June 2019

Research Signals

Despite trade headwinds, stocks mostly moved higher last month as monetary policy moved front and center on positive comments from the European Central Bank and the US Federal Reserve, which removed 'patient' from its policy message, an apparent dovish update. However, investors are showing no patience with value and momentum trades which swapped positions once again in June, as value retook the lead from momentum (Table 1). Only time will tell how much patience investors will also display with economic growth, as the J.P.Morgan Global Manufacturing PMI remained in contraction territory as international trade continued to weaken, with declines registered in the euro area, China and Japan, though increases were seen in the US and India.

- US: Value and momentum factors switched places once again, with strong spreads associated with Forward 12-M EPS-to-Enterprise Value, while Rational Decay Alpha lagged
- Developed Europe: Investors once again followed signals from securities lending markets, shying away from highly shorted stocks with high costs to borrow, as gauged by Implied Loan Rate
- Developed Pacific: High beta names strongly outperformed in Japan, posting a positive spread for the fourth month this year, though on volatile trading recently with another 18 percentage point month-on-month swing in 60-Month Beta spread performance
- Emerging markets: Momentum measures such as Industry-adjusted 12-month Relative Price Strength maintained their hold on leading performance, though valuation fought its way back, as captured by TTM EBITDA-to-Enterprise Value

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Table 1

Global factor quantile return spread performance snapshot, Jun 2019

Factor	Factor Group	US Large Cap	US Small Cap	Developed Europe	Developed Pacific ex Japan	Japan Standard Cap	Emerging Markets
Book-to-Market		2.61	-0.95	0.92	4.46	1.29	1.45
Forward 12-M EPS-to-Enterprise Value	Deep Value	4.36	0.85	4.22	4.81	4.71	0.83
TTM EBITDA-to-Enterprise Value		1.71	-0.07	3.64	6.48	3.61	2.36
TTM Free Cash Flow-to-Enterprise Value		1.98	2.39	1.91	0.38	-0.07	0.62
Industry Relative Leading 4-QTRs EPS to Price	Relative Value	0.85	0.69	1.43	3.04	3.43	0.51
Industry Relative TTM Dividend Yield		0.16	-1.72	1.03	2.16	3.88	1.46
Fixed Assets Turnover Ratio		3.36	2.19	2.52	0.62	0.04	-1.00
Inventory Turnover Ratio	Management Quality	-2.24	-3.08	-1.36	-2.34	-1.91	0.68
Net Operating Asset Turnover		4.69	-0.94	1.87	0.25	0.19	-0.84
Change in Accruals to Assets		-0.22	3.00	1.11	4.08	0.52	0.07
Change in TTM COGS vs. Inventory Level	Earnings Quality	1.95	1.03	1.86	2.38	-0.70	-0.08
Change in TTM Sales vs. Accounts Receivable		0.36	0.57	0.56	-0.48	1.51	-0.84
Working Capital Accruals		2.55	0.21	-1.02	-1.34	1.85	-0.28
1-yr Growth in TTM Free Cash Flow	Historical Growth	1.39	2.04	2.14	-0.45	-0.24	-0.81
Reinvestment Rate		0.39	1.88	0.34	5.19	1.51	-0.73
Average Monthly Trading Volume-to-Market Cap		1.20	-1.32	0.30	0.73	2.17	3.52
60-Month Beta	Liquidity, Risk & Size	-5.53	-3.49	-6.02	-2.56	-7.62	-3.22
Asset Quality Index		-0.81	-0.94	0.78	-3.54	0.14	0.71
Operating Leverage		0.50	0.50	0.41	1.22	1.00	0.32
Natural Logarithm of Market Capitalization		-0.94	-5.36	-2.83	-0.06	0.58	2.07
2-Year Ahead EPS Growth		4.74	-0.57	2.00	1.44	4.67	1.50
3-M Revision in FY2 EPS Forecasts	Earnings Momentum	-3.05	-1.23	4.15	-0.26	-1.58	0.96
Real Earnings Surprise		0.10	0.41	0.85	-0.64	1.10	0.88
24-Month Value at Risk		-4.51	0.07	-0.66	4.40	-4.88	-1.02
5-day Industry Relative Return		0.63	-0.25	2.29	0.09	-2.36	-1.65
Industry-adjusted 12-month Relative Price Strength	Price Momentum	-1.93	0.35	1.26	5.04	1.40	1.57
Rational Decay Alpha		-5.47	0.93	-4.85	-1.09	-4.31	-0.44
Demand Supply Ratio	Short Sentiment	0.18	0.94	0.78	4.42	-0.11	-1.74
Implied Loan Rate		-0.40	4.48	4.32	5.81	1.55	-0.23

Source: IHS Markit

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United States

US Large Cap

The rate of overall growth in US manufacturing operating conditions held close to May's near decade low (50.5) in June, with the PMI registering at 50.6. Modest upturns in output and new business supported the headline number, while the pace of growth in new business from abroad was the quickest thus far this year. Stocks overcame their worst month of the year in May with strong returns in June, finishing their best first half in over two decades on an increased outlook for a July Fed rate cut.

For US large caps, top (Table 2) and bottom (Table 3) performing factors continued to vacillate between value and momentum signals in June. Valuation measures once again outperformed, led by Time Weighted Earnings Yield (6.40%) and 1-Month Active Return (6.05%), a short-term price reversal metric. At the opposite extreme, Rational Decay Alpha (-5.47%) was among the weakest performers, where we find large swings in its recent performance, in addition to that of Time Weighted Earnings Yield (Figure 1). We also acknowledge the particularly strong performance of Asia-Pacific Sales Exposure (6.82%) along with EMEA Sales Exposure (4.58%), compared to that of North America Sales Exposure (-6.64%), which is an interesting reversal of the trend the prior month given the resiliency of the US dollar, though perhaps in anticipation of a Fed rate cut in July.

Table 2

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

Factor	Decile spread (%)	Factor group
Asia-Pacific Sales Exposure	6.82	Macro
Time Weighted Earnings Yield	6.40	Deep Value
1-Month Active Return	6.05	Price Momentum
Leading 12-Month Mean Earnings Yield	5.80	Deep Value
Trailing 12-Month Sales to Invested Capital	5.79	Management Quality
Leading 12-Month Median Earnings Yield	5.52	Deep Value
Current Earnings Yield	5.47	Deep Value
TTM Sales-to-Enterprise Value	5.37	Deep Value
TTM Pro Forma Earnings-to-Price	4.99	Deep Value
14 Day Relative Strength Index	4.83	Price Momentum
Leading 12 Month Sales Yield	4.77	Deep Value
2-Year Ahead EPS Growth	4.74	Earnings Momentum
Net Operating Asset Turnover	4.69	Management Quality
Time Weighted Sales Yield	4.58	Deep Value
EMEA Sales Exposure	4.58	Macro

Source: IHS Markit

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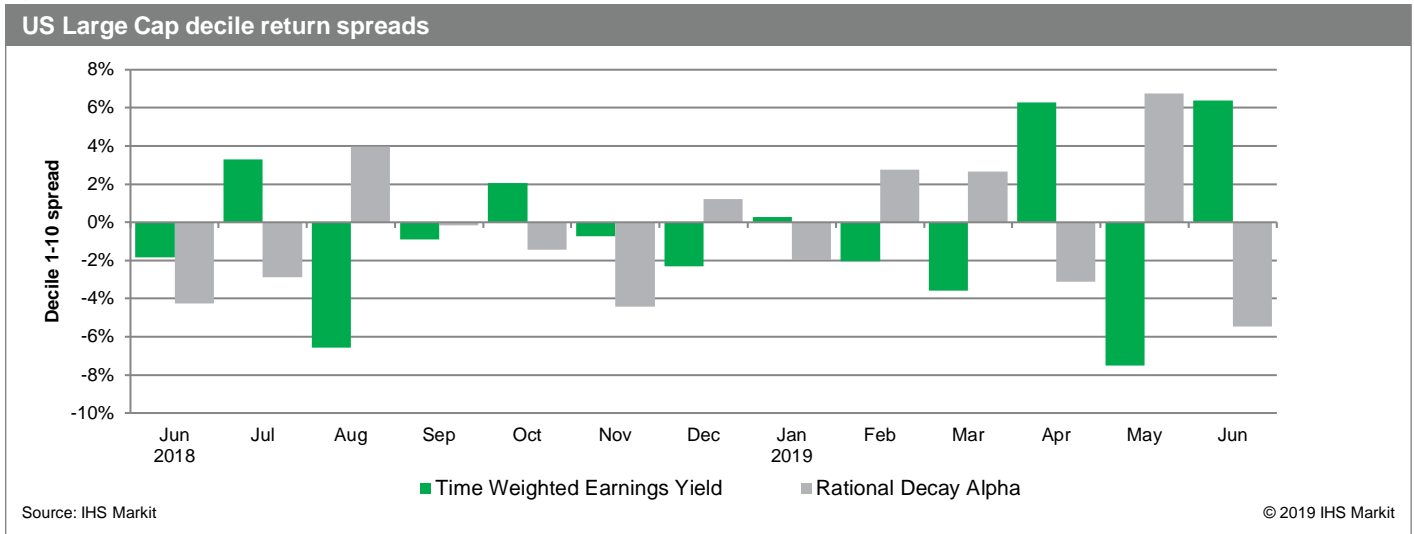
Table 3

US Large Cap bottom decile return spread factor performance, Jun 2019		
Factor	Decile spread (%)	Factor group
20-Day Volume Volatility to Price Volatility	-7.96	Liquidity, Risk & Size
Dividends-to-Cash Flow	-7.68	Management Quality
North America Sales Exposure	-6.64	Macro
Product of Beta and Sigma	-6.32	Liquidity, Risk & Size
Leading 1-Year Regular Dividend Payout	-6.10	Dividend Forecast
At the Money Call Option Implied Volatility	-5.92	Liquidity, Risk & Size
Cash Cycle	-5.84	Management Quality
60-Month Beta	-5.53	Liquidity, Risk & Size
Rational Decay Alpha	-5.47	Price Momentum
At the Money Put Option Implied Volatility	-5.47	Liquidity, Risk & Size

Source: IHS Markit

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Figure 1



Source: IHS Markit

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US Small Cap

Similar to large caps, Deep Value was a strong performing signal for small caps in June (Table 4); however, a notable difference between the two size segments was found with Price Momentum maintaining its dominant role as well. In fact, 6-Month Active Return with 1-Month Lag (5.76%) topped the leaderboard for the second consecutive month, though on weaker performance in June (Figure 2). On the other hand, bottom performing factors for the month (Table 5) include Natural Logarithm of Market Capitalization (-5.36%), driven by sharp underperformance of microcaps (decile 1), along with Leading 1-Year Regular Dividend Payout (-4.93%), as dividend strategies lagged for both large and small caps.

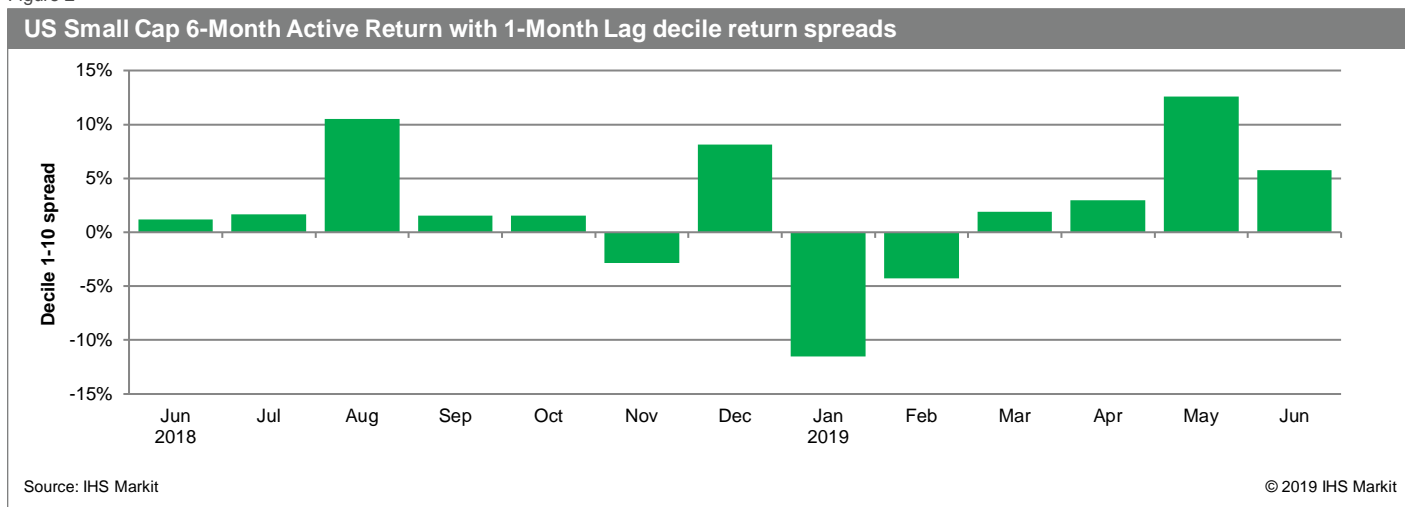
Table 4

US Small Cap top decile return spread factor performance, Jun 2019		
Factor	Decile spread (%)	Factor group
6-Month Active Return with 1-Month Lag	5.76	Price Momentum
Time Weighted Earnings Yield	5.36	Deep Value
EMEA Sales Exposure	5.25	Macro
Equity Turnover Ratio	5.17	Management Quality
4-52 Week Price Oscillator	5.05	Price Momentum
18-Month Active Return with 1-Month Lag	5.02	Price Momentum
TTM Free Cash Flow-to-Price	4.96	Deep Value
Forward Free Cash Flow-to-Price	4.92	Deep Value
Current Earnings Yield	4.91	Deep Value
Market Cap per Analyst	4.91	Liquidity, Risk & Size
Leading 12-Month Median Earnings Yield	4.86	Deep Value
Leading 12-Month Mean Earnings Yield	4.70	Deep Value
24-Month Active Return with 1-Month Lag	4.69	Price Momentum
Industry Relative TTM Free Cash Flow-to-Price	4.62	Relative Value
26-Week Relative Price Strength	4.59	Price Momentum

Source: IHS Markit

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Figure 2



Source: IHS Markit

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Table 5

US Small Cap bottom decile return spread factor performance, Jun 2019		
Factor	Decile spread (%)	Factor group
36-Month Active Return with 1-Month Lag	-6.18	Price Momentum
Natural Logarithm of Market Capitalization	-5.36	Liquidity, Risk & Size
Cash Cycle	-5.16	Management Quality
Leading 1-Year Regular Dividend Payout	-4.93	Dividend Forecast
60-Month Active Return with 1-Month Lag	-4.79	Price Momentum
Aggregate Gamma	-4.48	Liquidity, Risk & Size
Natural Logarithm of Closing Price	-4.47	Liquidity, Risk & Size
Current Liabilities-to-Price	-4.46	Liquidity, Risk & Size
Sortino Ratio	-4.33	Price Momentum
Operating Profit Margin	-4.26	Management Quality

Source: IHS Markit

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Europe

Manufacturing operating conditions in the euro area deteriorated for a fifth successive month during June, with the PMI falling to a three-month low of 47.6, from 47.7 in May, as output and new orders weighed on the sector. Greece remained the best performing country and Germany remained the weakest, while France stood out registering its highest PMI for nine months. Equity markets returned to their winning monthly trend for the year, following US stocks higher with a healthy double-digit gain for the first half of the year, spurred by comments from the ECB and the Fed.

Once again, factor performance in European markets resembled that of US large caps, with Asia-Pacific Sales Exposure (4.97%) topping the list of outperformers (Table 6), followed closely behind by Deep Value measures including Time Weighted Sales Yield (4.69%). We also draw attention to Implied Loan Rate (4.32%), which has outperformed in all but one month since December, with a notable bump in June (Figure 3). The implication is that investors are tuning in to the securities lending market and avoiding stocks with the highest cost to borrow, in other words, those with the highest shorting demand. At the other end of the spectrum, 60-Month Beta (-6.02%) turned in the weakest performance (Table 7), as investors chased the highest beta stocks up as the market rebounded in June.

Table 6

Developed Europe top decile return spread factor performance, Jun 2019

Factor	Decile spread (%)	Factor group
Asia-Pacific Sales Exposure	4.97	Macro
Time Weighted Sales Yield	4.69	Deep Value
Time Weighted Cash Yield	4.63	Deep Value
Leading 12 Month Sales Yield	4.58	Deep Value
Leading 12 Month EBITDA/ EV	4.51	Deep Value
Number of Analyst Coverage	4.43	Liquidity, Risk & Size
Leading 12 Month Cash Yield	4.39	Deep Value
Implied Loan Rate	4.32	Short Sentiment
Forward 12-M EPS-to-Enterprise Value	4.22	Deep Value
3-M Revision in FY2 EPS Forecasts	4.15	Earnings Momentum
Oil Prices Sensitivity	4.14	Macro
15/36 Week Stock Price Ratio	3.97	Price Momentum
TTM Sales-to-Enterprise Value	3.97	Deep Value
Natural Logarithm of TTM Sales	3.96	Liquidity, Risk & Size
Forward Free Cash Flow-to-Price	3.93	Deep Value

Source: IHS Markit

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Figure 3

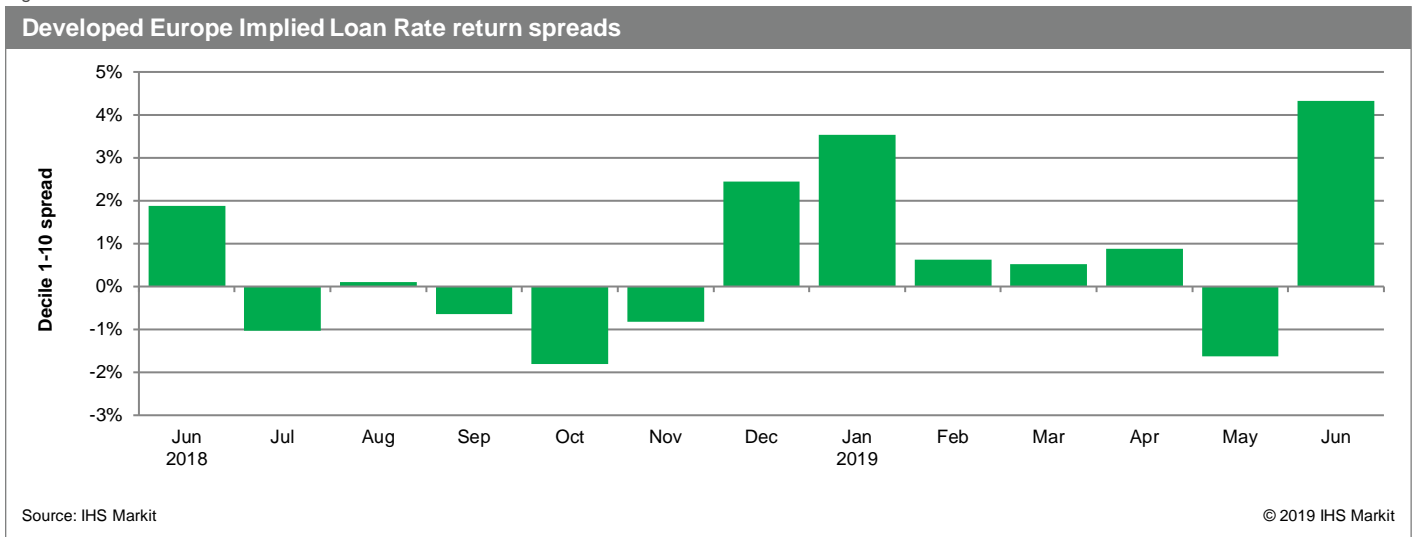


Table 7

Developed Europe bottom decile return spread factor performance, Jun 2019

Factor	Decile spread (%)	Factor group
60-Month Beta	-6.02	Liquidity, Risk & Size
Second Preceding 6-month Return	-5.44	Price Momentum
Rational Decay Alpha	-4.85	Price Momentum
20-Day Volume Volatility to Price Volatility	-4.80	Liquidity, Risk & Size
Product of Beta and Sigma	-4.70	Liquidity, Risk & Size
1-Month Stock Return Interquartile Range	-4.42	Liquidity, Risk & Size
Trading Turnover Ratio	-4.08	Liquidity, Risk & Size
Average Trading Volume in Preceding 6-month	-3.96	Price Momentum
Cyclically Adjusted Earnings-to-Price	-3.86	Deep Value
Housing Starts Sensitivity	-3.32	Macro

Source: IHS Markit © 2019 IHS Markit

Asia-Pacific

Chinese manufacturing operating conditions followed that of Japan lower, with both countries' manufacturing PMIs now residing below the 50.0 no change mark in June. The headline PMI in China showed marginal deterioration, falling from 50.2 in May to 49.4 in June on declining total new business and international sales. Manufacturing conditions in Japan were also softer, edging down to 49.3 in June, from 49.8 in May, on subdued export demand and as output and new work fell at the fastest rates since March. Yet, Asia-Pacific equity markets regained ground in June, supporting solid returns for the year led by China.

Developed markets in Asia-Pacific also demonstrated investor favor toward valuation measures, though some country differences were seen among bottom performing factors. In developed Pacific markets outside Japan, TTM EBITDA-to-Price (8.44%) was a top performer (Table 8), with positive spreads in all but three months over the past year (Figure 4). Conversely, factors which lagged for the month (Table 9) represent several styles including 36-Month Active Return with 1-Month Lag (-4.55%), Debt to Market Cap (-3.52%) and 1-yr Chg in QTR Inventory as % of Sales (-3.06%).

Valuation measures that outperformed in Japan (Table 10) were led by 1-Month Active Return (7.74%), a short-term price reversal metric, and Leading 12 Month Cash Yield (6.09%). Alternatively, the weakest performers (Table 11) were concentrated in high risk, low momentum signals (Figure 5), represented by 60-Month Beta (-7.62%) and Fama-French Momentum (-5.39%).

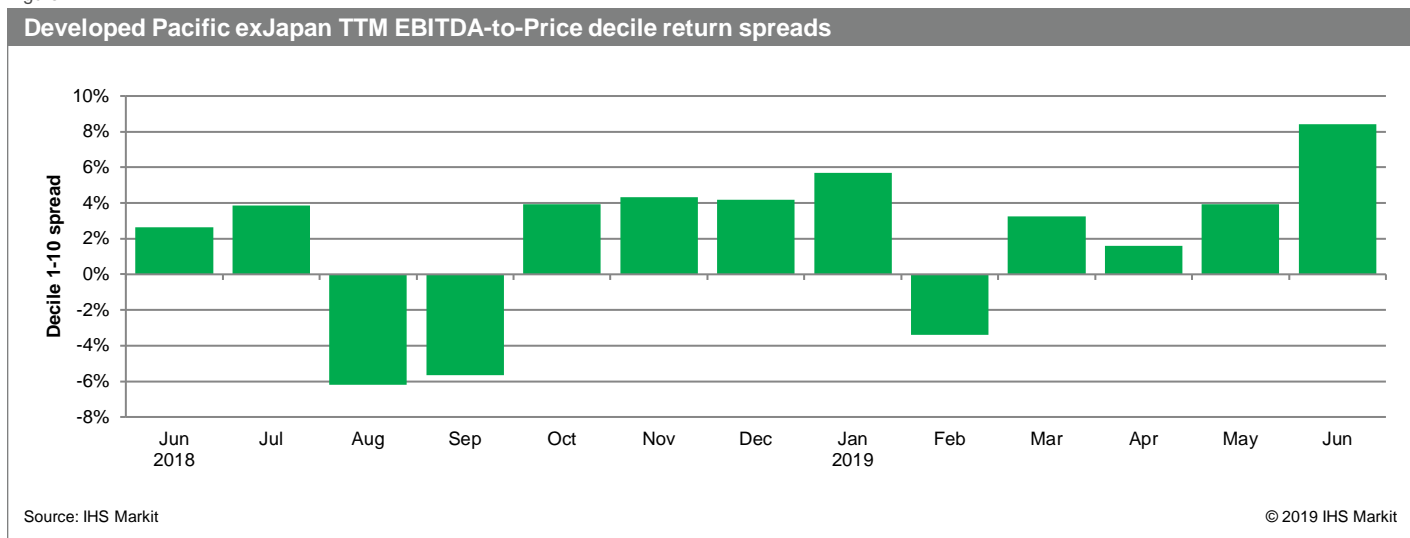
Table 8

Developed Pacific exJapan top decile return spread factor performance, Jun 2019		
Factor	Decile spread (%)	Factor group
Current Liabilities-to-Price	9.14	Liquidity, Risk & Size
Natural Logarithm of Total Assets (USD)	8.70	Liquidity, Risk & Size
Altman Z Score	8.56	Liquidity, Risk & Size
TTM EBITDA-to-Price	8.44	Deep Value
Natural Logarithm of TTM Sales (USD)	7.95	Liquidity, Risk & Size
Leading 12-Month Mean Earnings Yield	7.80	Deep Value
Leading 12-Month Median Earnings Yield	7.65	Deep Value
Price-to-Total Assets	7.36	Deep Value
Tobin q	7.20	Liquidity, Risk & Size
Operating Cash Flow Ratio	6.87	Liquidity, Risk & Size
TTM Core Earnings-to-Price	6.80	Deep Value
Normalized Earnings Yield	6.80	Deep Value
TTM Growth Flow-to-Price	6.70	Deep Value
Current Ratio	6.68	Liquidity, Risk & Size
Industry Relative TTM Cash Flow-to-Price	6.67	Relative Value

Source: IHS Markit

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Figure 4



Source: IHS Markit

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Table 9

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

Factor	Decile spread (%)	Factor group
Natural Logarithm of Market Capitalization (USD)	-5.11	Liquidity, Risk & Size
36-Month Active Return with 1-Month Lag	-4.55	Price Momentum
Asset Quality Index	-3.54	Liquidity, Risk & Size
Debt to Market Cap	-3.52	Liquidity, Risk & Size
5-yr Relative Book-to-Market	-3.25	Relative Value
1-yr Chg in QTR Inventory as % of Sales	-3.06	Historical Growth
3-yr Compound Annual Gross Margin Growth	-2.88	Historical Growth
Change in Inventory to Average Assets	-2.82	Management Quality
1-yr Change in Assets-adj TTM Cash Flow	-2.79	Historical Growth
Inflation Sensitivity	-2.79	Macro

Source: IHS Markit

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Table 10

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

Factor	Decile spread (%)	Factor group
1-Month Active Return	7.74	Price Momentum
Leading 12 Month Cash Yield	6.09	Deep Value
Time Weighted Cash Yield	6.04	Deep Value
Oil Prices Sensitivity	5.29	Macro
EMEA Sales Exposure	5.28	Macro
Time Weighted Earnings Yield	5.14	Deep Value
Leading 12-Month Median Earnings Yield	5.03	Deep Value
TTM Cash Flow-to-Price	5.00	Deep Value
Leading 12-Month Mean Earnings Yield	4.96	Deep Value
14 Day Relative Strength Index	4.90	Price Momentum
Forward 12-M EPS-to-Enterprise Value	4.71	Deep Value
Latin America Sales Exposure	4.69	Macro
TTM EBITDA-to-Price	4.69	Deep Value
2-Year Ahead EPS Growth	4.67	Earnings Momentum
5-yr Relative TTM EBITDA-to-Price	4.53	Relative Value

Source: IHS Markit

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Table 11

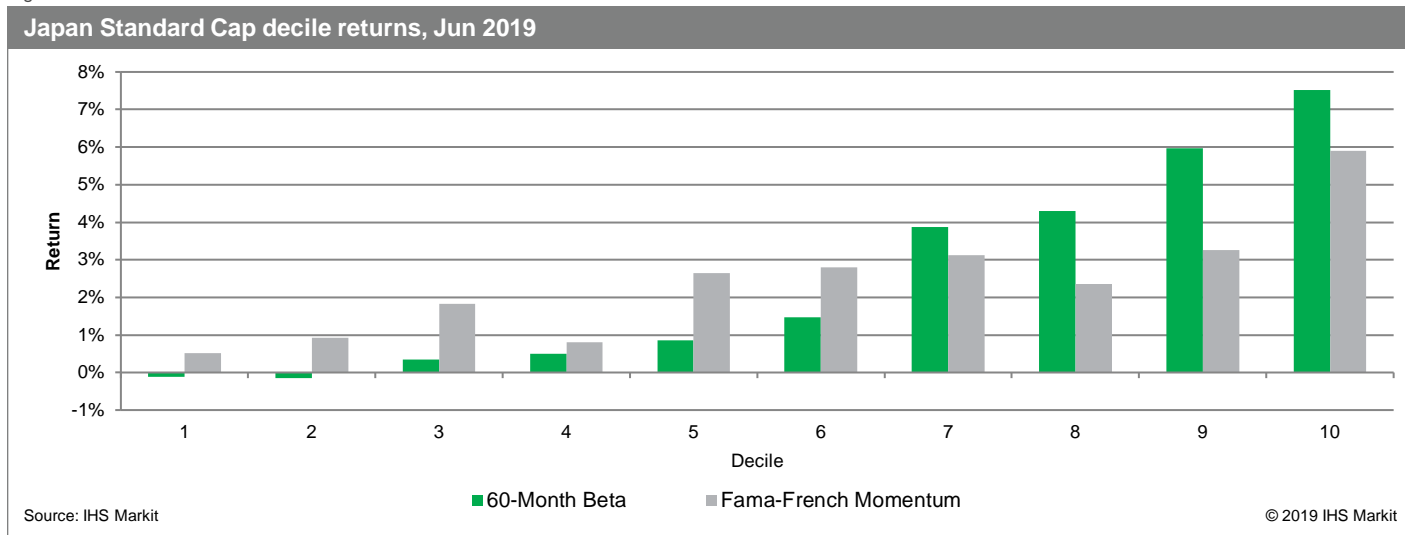
Japan Standard Cap bottom decile return spread factor performance, Jun 2019

Factor	Decile spread (%)	Factor group
Product of Beta and Sigma	-7.70	Liquidity, Risk & Size
60-Month Beta	-7.62	Liquidity, Risk & Size
30-75 Week Stock Price Ratio	-5.93	Price Momentum
20-Day Volume Volatility to Price Volatility	-5.57	Liquidity, Risk & Size
52-Week High	-5.40	Price Momentum
Fama-French Momentum	-5.39	Price Momentum
Average Trading Volume in Preceding 6-month	-5.13	Price Momentum
Trading Turnover Ratio	-5.03	Liquidity, Risk & Size
Std Dev of FY1 EPS Estimates-to-Price	-4.96	Earnings Momentum
Stock Return Volatility	-4.94	Liquidity, Risk & Size

Source: IHS Markit

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Figure 5



Emerging Markets

Lastly, we review top (Table 12) and bottom (Table 13) performing factors in emerging markets in June. Price Momentum indicators fought to maintain their position on the leaderboard, led by Slope of 52 Week Price Trend Line (3.21%). However, consistent with our other coverage universes, valuation measures put up a good fight to make their way to the top, including 60-Month Active Return with 12-Month Lag (3.11%), a long-term price reversal metric, and TTM Cash Flow-to-Price (2.84%). One loser of the battle was 60-Month Beta (-3.22%) which dropped from the leader to the laggard board last month, with a 7.4 percentage point month-on-month drop in spread performance (Figure 6).

Table 12

Emerging Markets top quintile return spread factor performance, Jun 2019

Factor	Decile spread (%)	Factor group
Average Monthly Trading Volume-to-Market Cap	3.52	Liquidity, Risk & Size
Slope of 52 Week Price Trend Line	3.21	Price Momentum
Natural Logarithm of Closing Price	3.15	Liquidity, Risk & Size
60-Month Active Return with 12-Month Lag	3.11	Price Momentum
3-Month Active Return	2.94	Price Momentum
TTM Cash Flow-to-Price	2.84	Deep Value
Slope of 66 Week Price Trend Line	2.79	Price Momentum
15/36 Week Stock Price Ratio	2.75	Price Momentum
TTM Operating Cash Flow-to-Price	2.62	Deep Value
Latin America Sales Exposure	2.51	Macro
50-200 Day Stock Price Ratio	2.49	Price Momentum
Time Weighted EBITDA/ EV	2.44	Deep Value
39-Week Return with 4-week Lag	2.43	Price Momentum
TTM EBITDA-to-Enterprise Value	2.36	Deep Value
Leading 12 Month EBITDA/ EV	2.30	Deep Value

Source: IHS Markit

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Table 13

Emerging Markets bottom quintile return spread factor performance, Jun 2019

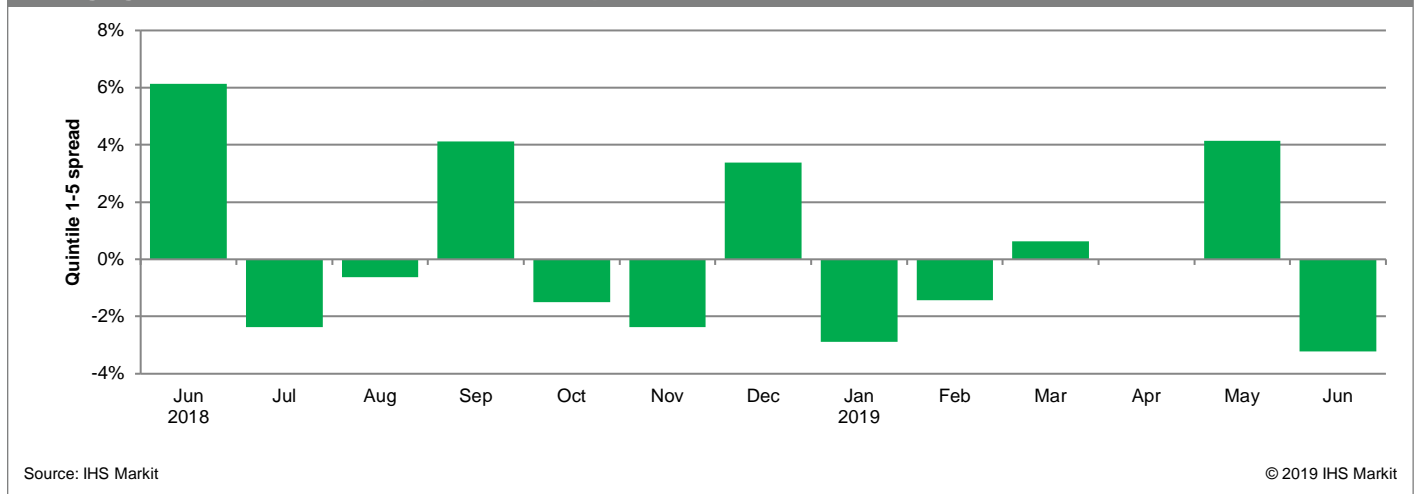
Factor	Decile spread (%)	Factor group
Market Volatility Sensitivity	-3.35	Macro
60-Month Beta	-3.22	Liquidity, Risk & Size
Dividend Coverage Ratio	-3.21	Liquidity, Risk & Size
Product of Beta and Sigma	-3.03	Liquidity, Risk & Size
Housing Starts Sensitivity	-2.96	Macro
Retained Earnings-to-Total Assets	-2.93	Management Quality
1 Year Change in Gross Profit to Assets	-2.47	Management Quality
20-Day Volume Volatility to Price Volatility	-2.46	Liquidity, Risk & Size
Price Above Last 260-day Lowest Trading Price	-2.41	Price Momentum
Dividends- to-Cash Flow	-2.41	Management Quality

Source: IHS Markit

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Figure 6

Emerging Markets 60-Month Beta quintile return spreads



Source: IHS Markit

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