

The next catalyst

March 2019

Research Signals

Stocks strengthened worldwide as global equities posted their strongest quarter in several years, supporting high momentum strategies at the expense of valuation (Table 1). Investors put their hopes on China and the US reigniting the lackluster global manufacturing economy, despite the global manufacturing sector's unchanged J.P.Morgan Global Manufacturing PMI reading from February's 32-month low. However, if progress on the long-running trade dispute between the US and China has already been priced into the market, what will the next catalyst be to sustain momentum in equity markets?

- US: Top performing factors among large caps captured a blend of low risk and high momentum, as represented by 60-Month Beta and Rational Decay Alpha, respectively
- Developed Europe: Investors favored stocks with strong momentum and avoided firms with weak revisions, as captured by Industry-adjusted 12-month Relative Price Strength and 3-M Revision in FY2 EPS Forecasts, respectively
- Developed Pacific: In markets outside Japan, Implied Loan Rate, a Short Sentiment measure of the cost of borrowing a stock, extended an upward trend in performance, with positive spreads in all but two months over the past year
- Emerging markets: Valuation was a negative signal, as indicated by factors such as Industry Relative Leading 4-QTRs EPS to Price and TTM EBITDA-to-Enterprise Value

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Table 1

Global factor quantile return spread performance snapshot, Mar 2019

Factor	Factor Group	US Large Cap	US Small Cap	Developed Europe	Developed Pacific ex Japan	Japan Standard Cap	Emerging Markets
Book-to-Market		-1.61	-4.06	-5.17	-1.13	-4.50	-0.42
Forward 12-M EPS-to-Enterprise Value	Deep Value	-4.12	-4.24	-2.34	1.55	-2.16	-1.01
TTM EBITDA-to-Enterprise Value		-2.19	-4.38	-2.46	2.63	-3.27	-1.69
TTM Free Cash Flow-to-Enterprise Value		-4.95	-3.89	-1.91	0.27	-0.81	-1.56
Industry Relative Leading 4-QTRs EPS to Price	Relative Value	-1.70	0.35	-2.23	2.43	-2.20	-1.84
Industry Relative TTM Dividend Yield		1.81	0.55	-2.04	2.94	-0.97	-2.10
Fixed Assets Turnover Ratio		-3.97	-4.28	-3.19	0.20	-1.55	1.63
Inventory Turnover Ratio	Management Quality	-0.17	-0.51	0.23	-4.79	0.38	-0.52
Net Operating Asset Turnover		-0.97	-6.87	0.05	1.14	-2.51	0.27
Change in Accruals to Assets		-0.23	0.87	0.85	-0.70	2.32	-1.32
Change in TTM COGS vs. Inventory Level	Earnings Quality	-0.56	-0.93	-0.38	0.17	-1.61	0.06
Change in TTM Sales vs. Accounts Receivable		1.21	1.28	-1.41	-1.45	0.69	0.13
Working Capital Accruals		-0.28	-0.30	1.10	-2.69	-1.16	1.27
1-yr Growth in TTM Free Cash Flow	Historical Growth	-0.28	-0.83	0.01	-1.53	1.00	-0.23
Reinvestment Rate		-0.93	-2.10	-0.03	4.18	0.33	0.99
Average Monthly Trading Volume-to-Market Cap		-1.18	0.17	-0.97	1.48	-3.54	-2.10
60-Month Beta	Liquidity, Risk & Size	3.63	-0.76	-0.79	-2.24	1.29	0.62
Asset Quality Index		-0.21	-0.79	-0.08	-0.55	-1.82	-0.16
Operating Leverage		0.27	0.47	0.40	0.01	-0.23	0.21
Natural Logarithm of Market Capitalization		-2.27	-2.78	-0.44	3.05	-1.31	-1.54
2-Year Ahead EPS Growth		-1.00	-2.49	-2.47	0.23	-2.61	0.38
3-M Revision in FY2 EPS Forecasts	Earnings Momentum	-0.31	1.46	1.56	6.05	0.52	-2.90
Real Earnings Surprise		0.33	0.57	0.91	1.81	0.61	-1.97
24-Month Value at Risk		1.69	1.89	2.77	3.91	3.51	-1.86
5-day Industry Relative Return	Price Momentum	-0.68	-1.45	1.58	-0.14	-3.11	-2.00
Industry-adjusted 12-month Relative Price Strength		0.83	1.56	3.32	4.26	1.38	0.38
Rational Decay Alpha		2.65	-1.51	4.60	3.24	1.42	0.16
Demand Supply Ratio	Short Sentiment	1.73	-1.40	1.86	5.12	-0.42	-1.17
Implied Loan Rate		0.85	-0.78	0.53	6.02	-1.35	-1.22

Source: IHS Markit

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United States

US Large Cap

US manufacturing saw moderate improvement in operating conditions in March, with the PMI registering at 52.4 (53.0 in February), the weakest level since June 2017 and notably softer than the trend seen for 2018. A key factor was a slower rise in output due to softer underlying client demand, yet stocks remained in demand in March, pushing first quarter performance to the highest since the third quarter of 2009 and the best first quarter since 1998.

Factors which outperformed in the US Large Cap universe in March (Table 2) represent a blend of safety and momentum styles. For example, 1-Year Price Momentum Indicators (4.22%) and 60-Month Beta (3.63%) took on very similar return distributions across deciles last month (Figure 1). Other top performing signals include Operating Cash Flow to Assets (4.40%) and Leading 1-Year Regular Dividend Payout (3.38%). On the other hand, Yield Curve Slope Sensitivity (-6.60%) was the weakest performing indicator (Table 3), not surprisingly given that the yield curve inverted in March. Deep Value measures such as Price-to-Total Assets (-6.43%) and Graham Number Fair Value Premium (-5.53%) also posted negative spreads last month.

Table 2

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

Factor	Decile spread (%)	Factor group
Cash Flow Leverage	6.67	Liquidity, Risk & Size
Operating Cash Flow to Assets	4.40	Management Quality
1-Year Price Momentum Indicator	4.22	Price Momentum
60-Month Beta	3.63	Liquidity, Risk & Size
Leading 1-Year Regular Dividend Payout	3.38	Dividend Forecast
Assets Turnover Ratio	3.26	Management Quality
Operating Cash Flow Profit Margin	3.25	Management Quality
Slope of 3-yr TTM Sales Trend Line	3.23	Historical Growth
Earnings Response Coefficient	3.10	Earnings Quality
Product of Beta and Sigma	2.83	Liquidity, Risk & Size
Debt to Market Cap	2.82	Liquidity, Risk & Size
Rational Decay Alpha	2.65	Price Momentum
Slope of 52 Week Price Trend Line	2.62	Price Momentum
At the Money Put Option Implied Volatility	2.59	Liquidity, Risk & Size
Stability of 3-yr TTM Oper Cash Flow	2.38	Historical Growth

Source: IHS Markit

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Figure 1

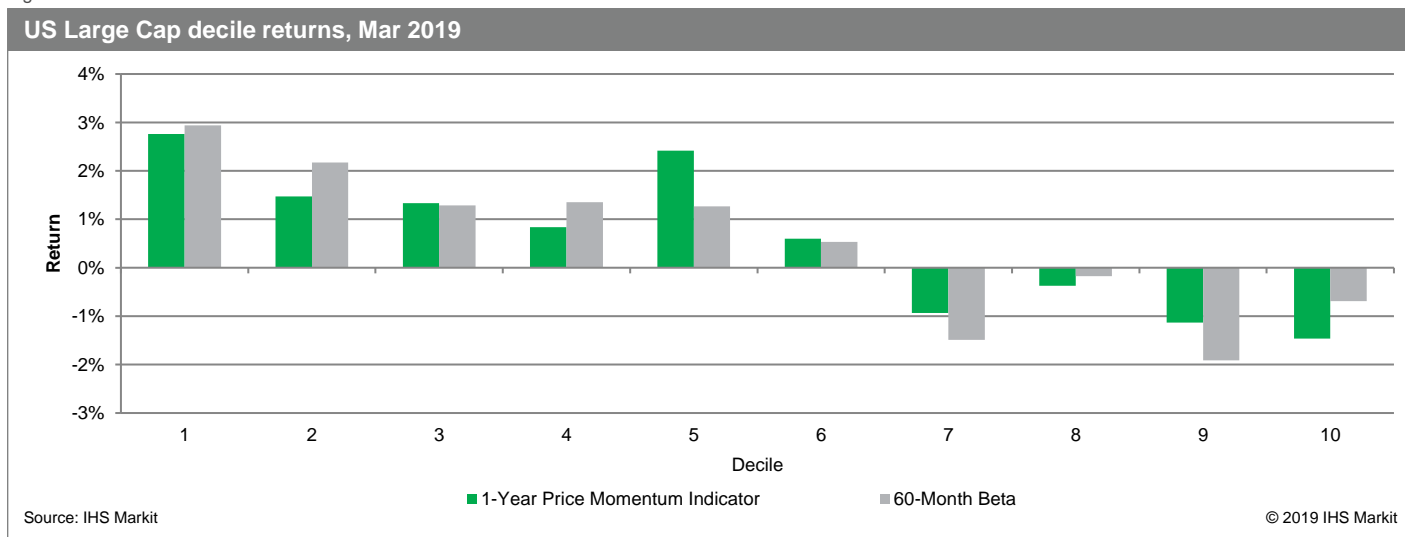


Table 3

Factor	Decile spread (%)	Factor group
Yield Curve Slope Sensitivity	-6.60	Macro
Tobin q	-6.52	Liquidity, Risk & Size
Price-to-Total Assets	-6.43	Deep Value
Operating Liability Leverage	-6.41	Management Quality
Net Asset Value to Price	-6.07	Deep Value
Capital Expenditure-to-Total Assets	-5.59	Management Quality
Graham Number Fair Value Premium	-5.53	Deep Value
TTM Free Cash Flow-to-Price	-5.37	Deep Value
Forward Free Cash Flow-to-Price	-4.97	Deep Value
TTM Free Cash Flow-to-Enterprise Value	-4.95	Deep Value

Source: IHS Markit © 2019 IHS Markit

US Small Cap

High quality was a dominant theme among the top performing factors for small caps in March (Table 4), represented by measures such as TTM Gross Profit Margin (6.06%) and Attention Span Ratio (5.33%). We also highlight 3-Month Change in BitSight Rating (4.51%), a member of our recently [introduced](#) Cybersecurity factor suite, which has posted positive spreads in the past six months (Figure 2), indicating that investors favored firms with a decreased risk for a cybersecurity breach event. Conversely, 8 of the 10 weakest performing factors for the month (Table 5) were measures of valuation, including double-digit losses associated with TTM Sales-to-Price (-10.80%) and Leading 12 Month Sales Yield (-10.67%).

Table 4

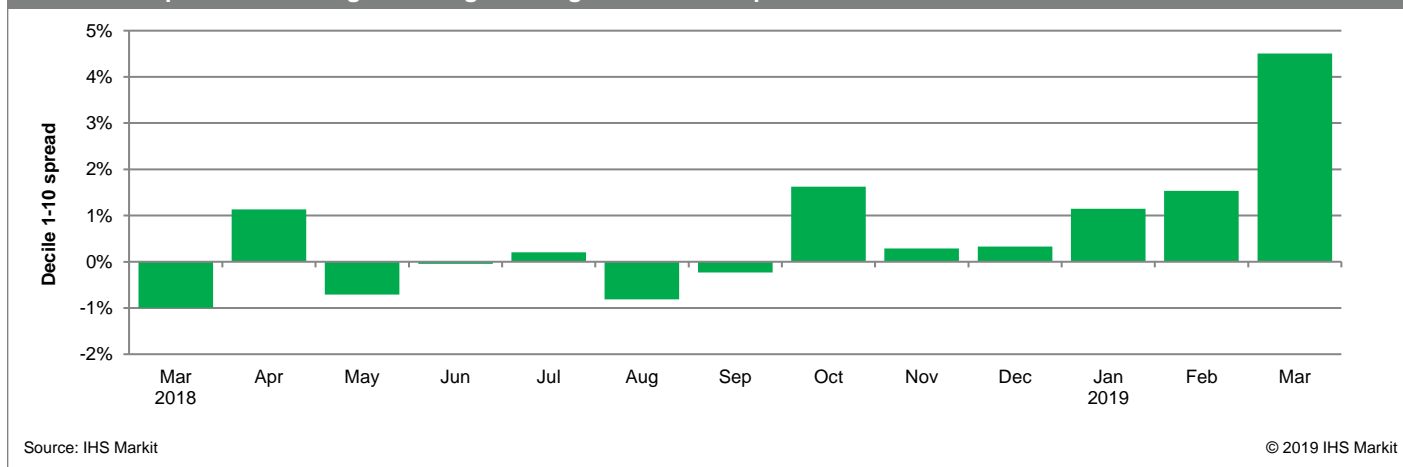
US Small Cap top decile return spread factor performance, Mar 2019

Factor	Decile spread (%)	Factor group
Averaged Last 6-M EPS Revisions for FY1	6.65	Earnings Momentum
TTM Gross Profit Margin	6.06	Management Quality
Ohlson Bankruptcy Score	5.52	Liquidity, Risk & Size
Attention Span Ratio	5.33	Management Quality
Flow Ratio	5.14	Liquidity, Risk & Size
Operating Liability Leverage	5.12	Management Quality
TTM Capital Expenditures-to-Price	4.52	Deep Value
Averaged Last 6-M EPS Revisions for FY2	4.51	Earnings Momentum
3-Month Change in BitSight Rating	4.51	Cybersecurity
Inventory-to-Total Assets	4.12	Management Quality
Cash Cycle	4.03	Management Quality
1-Year Trough Gross Margin	4.00	Management Quality
1-yr Chg in Price-adj TTM Oper Cash Flow	3.95	Historical Growth
2-Year Trough Gross Margin	3.94	Management Quality
Leading 1-Year Regular Dividend Payout	3.93	Dividend Forecast

Source: IHS Markit

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Figure 2

US Small Cap 3-Month Change in BitSight Rating decile return spreads

Source: IHS Markit

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Table 5

US Small Cap bottom decile return spread factor performance, Mar 2019

Factor	Decile spread (%)	Factor group
TTM Sales-to-Price	-10.80	Deep Value
Leading 12 Month Sales Yield	-10.67	Deep Value
Time Weighted Sales Yield	-10.18	Deep Value
TTM Sales-to-Enterprise Value	-9.83	Deep Value
Current Liabilities-to-Price	-9.19	Liquidity, Risk & Size
Trailing 12-Month Sales to Invested Capital	-9.10	Management Quality
Industry-relative TTM Sales to Enterprise Value	-8.76	Relative Value
Time Weighted Cash Yield	-8.45	Deep Value
Tobin q	-7.41	Liquidity, Risk & Size
Price-to-Total Assets	-6.92	Deep Value

Source: IHS Markit

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Europe

The eurozone manufacturing sector dipped further into contraction territory in March, with the PMI at 47.5 (49.3 in February), marking the greatest decrease for nearly six years. Key findings include the biggest monthly decline in new orders since late 2012 and confidence hitting the lowest level in over six years. The three biggest economies all recorded sub-50.0 PMI readings, led by Germany. While concerns over trade wars, political uncertainty and deteriorating economic forecasts dampened business activity and confidence, stocks posted their best quarter in four years on China trade optimism.

Price Momentum was a dominant theme among the top performing factors in European markets in March (Table 6), led by 30-75 Week Stock Price Ratio (5.74%). Investors were also attentive to earnings revisions, where positive spreads to signals such as Time Weighted Earnings Revision Dispersion (4.90%) were driven by underperformance of firms with the weakest revisions (Figure 3). At the opposite extreme, as with US markets, valuation measures were among the worst performing factors for the month (Table 7), including Price-to-Total Assets (-5.84%) and 60-Month Alpha (-4.82%).

Table 6

Developed Europe top decile return spread factor performance, Mar 2019

Factor	Decile spread (%)	Factor group
30-75 Week Stock Price Ratio	5.74	Price Momentum
1-Year Price Momentum Indicator	5.72	Price Momentum
24-Month Active Return with 1-Month Lag	5.35	Price Momentum
Second Preceding 6-month Return	5.19	Price Momentum
18-Month Active Return with 1-Month Lag	5.08	Price Momentum
12-Month Active Return with 1-month Lag	5.02	Price Momentum
Time Weighted Earnings Revision Dispersion	4.90	Earnings Momentum
9-Month Active Return with 1-Month Lag	4.87	Price Momentum
Slope of 52 Week Price Trend Line	4.65	Price Momentum
Rational Decay Alpha	4.60	Price Momentum
39-Week Return with 4-week Lag	4.51	Price Momentum
Fama-French Momentum	4.31	Price Momentum
Slope of 66 Week Price Trend Line	4.19	Price Momentum
Time Weighted Earnings Revision	4.14	Earnings Momentum
Net # of Revisions for Fiscal Year 1	3.67	Earnings Momentum

Source: IHS Markit

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Figure 3

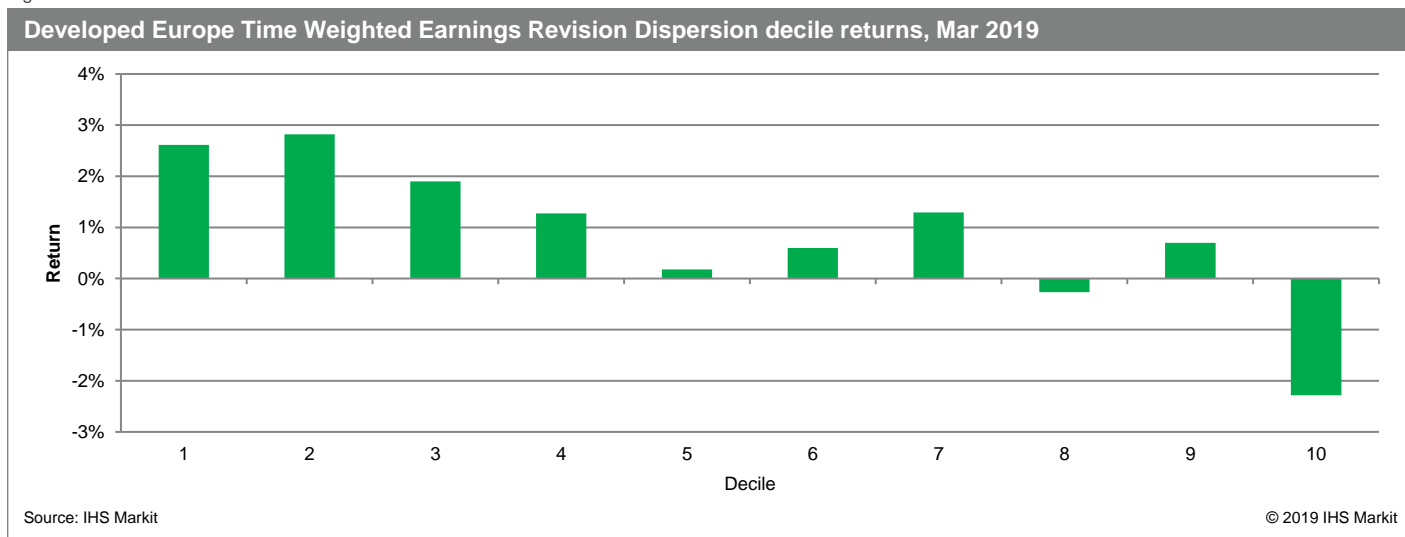


Table 7

Developed Europe bottom decile return spread factor performance, Mar 2019

Factor	Decile spread (%)	Factor group
Price-to-Total Assets	-5.84	Deep Value
Book-to-Market	-5.17	Deep Value
Tobin q	-5.16	Liquidity, Risk & Size
Time Weighted Book Yield	-4.94	Deep Value
60-Month Alpha	-4.82	Price Momentum
Leading 12 Month Book Yield	-4.81	Deep Value
Current Liabilities-to-Price	-4.76	Liquidity, Risk & Size
60-Month Active Return with 1-Month Lag	-4.60	Price Momentum
Time Weighted Cash Yield	-4.20	Deep Value
Price-to-Book Return-on-Equity Combination	-4.17	Deep Value

Source: IHS Markit © 2019 IHS Markit

Asia-Pacific

Manufacturing PMIs in the two largest Asian economies of Japan and China straddled the 50.0 no change mark in March. In China, operating conditions improved for the first time in four months, with the PMI posting at 50.8, up from 49.9 in February, on increases in production and total new work. Alternatively, the Japan PMI registered at 49.2, slightly up from 48.9 in February, with demand remaining sluggish and business confidence among the lowest on record. Yet equity markets in both countries recorded strong first quarters, with China leading national markets after a rout in 2018.

Earnings Momentum metrics topped the factor leaderboard in developed Pacific markets outside of Japan in March (Table 8). Time Weighted Earnings Revision (8.53%) led the way, posting its first positive spread in six months (Figure 4) and the highest level since April 2013. Implied Loan Rate (6.02%), a Short Sentiment measure of the cost of borrowing a stock, also outperformed, extending an upward trend characterized by positive spreads in all but two months over the past year. At the opposite end of the spectrum, stocks characterized by long-term undervaluation were weak performers for the month (Table 9), as captured by 5-yr Relative TTM Sales-to-Price (-4.62%).

In Japan, high momentum and quality stocks outperformed once again in March (Table 10), though, in this case, momentum took on a more prominent role. 26-Week Relative Price Strength (4.83%) and Net Profit Margin (3.58%) are two factors which captured these themes; however, differences are seen across their decile return distributions (Figure 5), where the momentum trade was systematically distributed across deciles while the quality trade was concentrated in high quality names in the top decile (D1). Style trends also carried over to the bottom performing factors (Table 11), with Deep Value measures such as Time Weighted Sales Yield (-5.88%) occupying the totality of the list of underperformers.

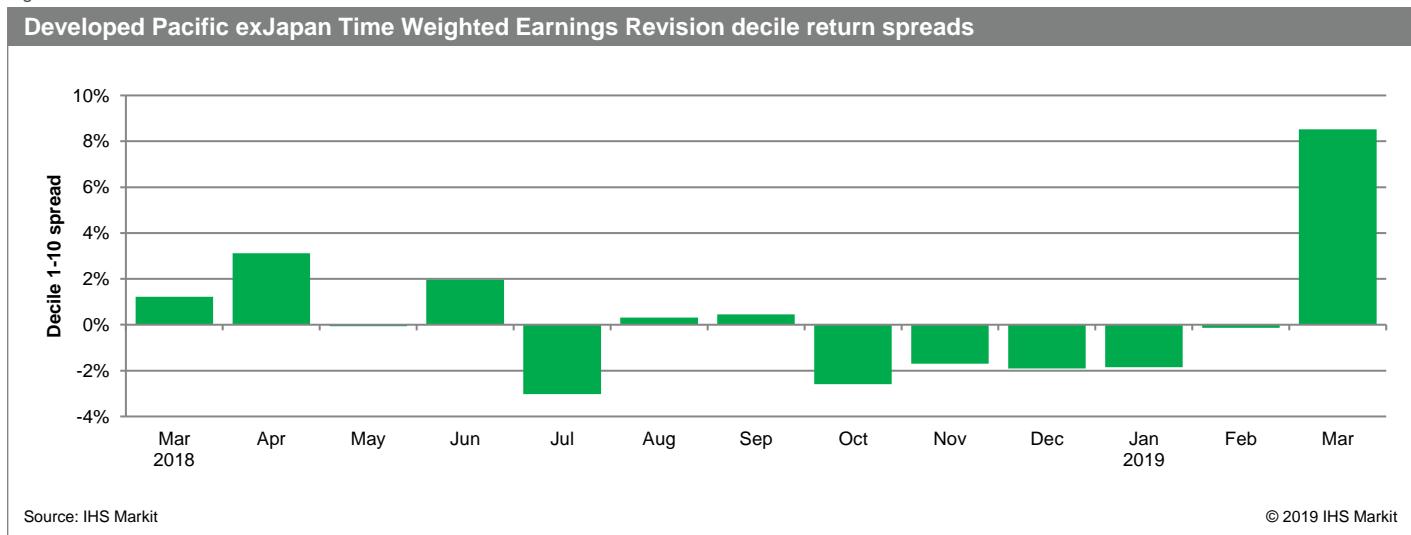
Table 8

Developed Pacific exJapan top decile return spread factor performance, Mar 2019		
Factor	Decile spread (%)	Factor group
Time Weighted Earnings Revision	8.53	Earnings Momentum
Earnings Torpedo	6.60	Earnings Momentum
3-M Revision in FY1 EPS Forecasts	6.44	Earnings Momentum
3-M Revision in FY2 EPS Forecasts	6.05	Earnings Momentum
Implied Loan Rate	6.02	Short Sentiment
Distress Measure	5.84	Liquidity, Risk & Size
FY1 EPS Estimates Dispersion	5.81	Earnings Momentum
Regression Error of 60-Month CAPM	5.67	Liquidity, Risk & Size
3-yr Growth in TTM Earnings per Share	5.64	Historical Growth
Sustainable Growth Rate	5.41	Historical Growth
FY2 EPS Forecast Dispersion	5.40	Earnings Momentum
TTM Pretax Income-to-Price	5.32	Deep Value
Normalized Earnings Yield	5.23	Deep Value
Stock Return Volatility	5.16	Liquidity, Risk & Size
Demand Supply Ratio	5.12	Short Sentiment

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, Mar 2019		
Factor	Decile spread (%)	Factor group
Inventory Turnover Ratio	-4.79	Management Quality
5-yr Relative TTM Sales-to-Price	-4.62	Relative Value
5-yr Relative Book-to-Market	-4.42	Relative Value
Inventory-to-Total Assets	-4.15	Management Quality
Market Cap per Analyst	-4.07	Liquidity, Risk & Size
Latin America Sales Exposure	-4.05	Macro
Net Current Assets-to-Price	-4.01	Deep Value
Natural Logarithm of TTM Sales	-3.64	Liquidity, Risk & Size
2-Year Ahead EPS Growth Percentage Change	-3.48	Earnings Momentum
Natural Logarithm of Total Assets	-3.41	Liquidity, Risk & Size

Source: IHS Markit

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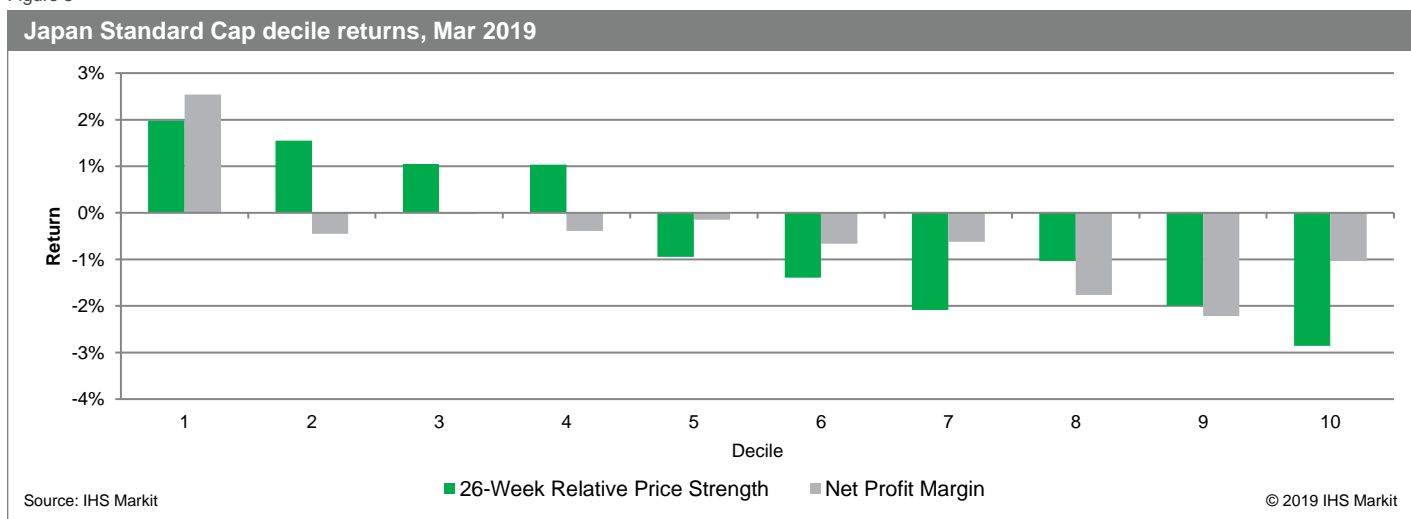
Table 10

Japan Standard Cap top decile return spread factor performance, Mar 2019		
Factor	Decile spread (%)	Factor group
26-Week Relative Price Strength	4.83	Price Momentum
52-Week High	4.14	Price Momentum
50-200 Day Stock Price Ratio	4.04	Price Momentum
39-Week Return with 4-week Lag	3.82	Price Momentum
18-Month Active Return with 1-Month Lag	3.73	Price Momentum
12-Month Active Return with 1-month Lag	3.71	Price Momentum
1-Year Price Momentum Indicator	3.64	Price Momentum
Net Profit Margin	3.58	Management Quality
24-Month Value at Risk	3.51	Price Momentum
15/36 Week Stock Price Ratio	3.51	Price Momentum
Fama-French Momentum	3.48	Price Momentum
Operating Cash Flow Profit Margin	3.41	Management Quality
6-Month Nominal Change in 12-Month Alpha	3.23	Price Momentum
9-Month Active Return with 1-Month Lag	3.16	Price Momentum
30-75 Week Stock Price Ratio	3.01	Price Momentum

Source: IHS Markit

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Figure 5



Source: IHS Markit

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Table 11

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

Factor	Decile spread (%)	Factor group
Time Weighted Sales Yield	-5.88	Deep Value
Leading 12 Month Sales Yield	-5.66	Deep Value
Normalized Earnings Yield	-5.51	Deep Value
Leading 12 Month EBITDA/ EV	-5.39	Deep Value
TTM Sales-to-Price	-5.37	Deep Value
Time Weighted EBITDA/ EV	-5.36	Deep Value
TTM EBITDA-to-Price	-5.32	Deep Value
Leading 12 Month Book Yield	-5.17	Deep Value
Time Weighted Book Yield	-4.98	Deep Value
Price-to-Total Assets	-4.94	Deep Value

Source: IHS Markit

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Emerging Markets

We round out the report with a review of top (Table 12) and bottom (Table 13) performing factors in emerging markets in March. Short-term price reversal metrics posted the strongest spreads, while long-term price reversal metrics posted the weakest spreads. 2-Month Active Return (5.80%) and 60-Month Alpha (-5.70%) topped the respective lists, with concentrated returns at the extreme top and bottom quintile, respectively, suggesting strong conviction for the trades (Figure 6). Several Macro indicators also made the lists with large deviations in March spreads compared with the average over the past year, as demonstrated by Asia-Pacific Sales Exposure (March: 3.22%; prior 12-month average: -0.82%), US Dollar Value Sensitivity (March: 2.22%; prior 12-month average: -0.66%) and EMEA Sales Exposure (March: -5.38%; prior 12-month average: -0.14%).

Table 12

Emerging Markets top quintile return spread factor performance, Mar 2019

Factor	Decile spread (%)	Factor group
2-Month Active Return	5.80	Price Momentum
4-week Industry Relative Return	5.01	Price Momentum
Cash Earnings Return On Equity	4.52	Management Quality
3-Month Active Return	3.92	Price Momentum
Asia-Pacific Sales Exposure	3.22	Macro
Dividends- to-Cash Flow	3.22	Management Quality
Dividend Coverage Ratio	3.20	Liquidity, Risk & Size
Street Consensus Rating	3.10	Earnings Momentum
Market Cap per Analyst	3.08	Liquidity, Risk & Size
2-Year Projected EPS Growth	2.54	Earnings Momentum
SG&A Expenses-to-Sales	2.46	Management Quality
US Dollar Value Sensitivity	2.22	Macro
Profitability Ratio	2.07	Management Quality
1-Month Active Return	2.05	Price Momentum
Std Dev of FY1 EPS Estimates-to-Price	1.79	Earnings Momentum

Source: IHS Markit

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Table 13

Emerging Markets bottom quintile return spread factor performance, Mar 2019

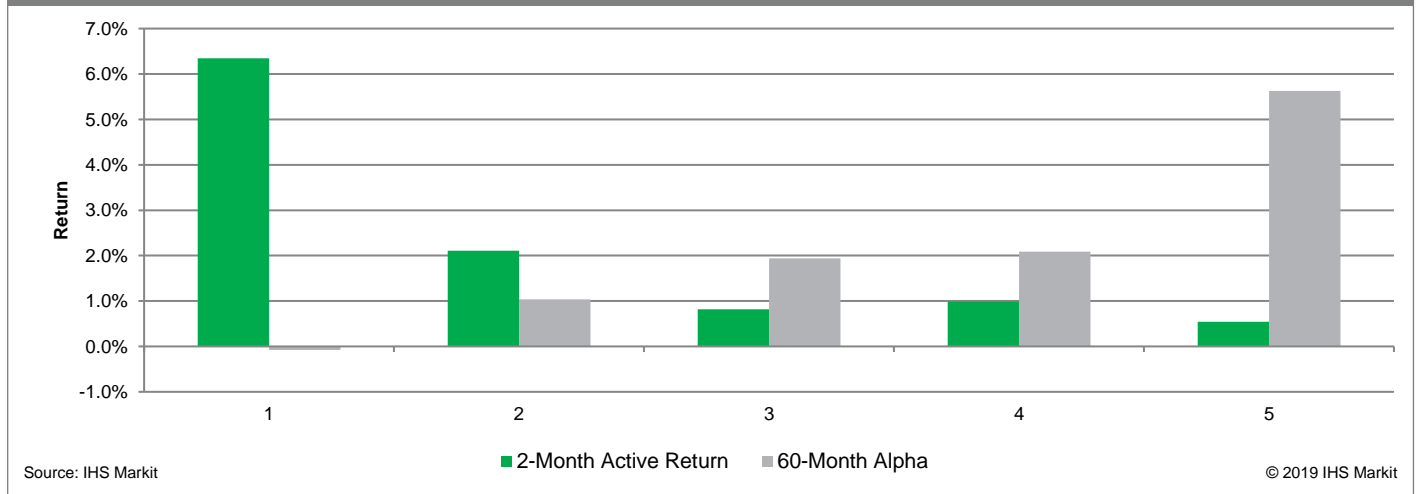
Factor	Decile spread (%)	Factor group
60-Month Alpha	-5.70	Price Momentum
60-Month Active Return with 12-Month Lag	-5.49	Price Momentum
EMEA Sales Exposure	-5.38	Macro
60-Month Active Return with 1-Month Lag	-5.07	Price Momentum
Natural Logarithm of Closing Price	-4.20	Liquidity, Risk & Size
26-Week Relative Price Strength	-3.75	Price Momentum
Leading 12 Month EBITDA/ EV	-3.39	Deep Value
6-Month Nominal Change in 18-Month Alpha	-3.34	Price Momentum
Regression Error of 60-Month CAPM	-2.96	Liquidity, Risk & Size
Stock Return Volatility	-2.93	Liquidity, Risk & Size

Source: IHS Markit

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Figure 6

Emerging Markets quintile returns, Mar 2019



Source: IHS Markit

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