

Factor performance remains linked while stocks decouple

August 2018

Research Signals

US stocks continue to decouple from other regional markets this year, particularly versus emerging markets. At the same time, investors look for the Federal Reserve to continue on its rate increase trajectory, contrary to other major central banks. However, buoyant US stocks saw positive performance from price momentum factors, at the expense of valuation, a theme that carried over to several other developed markets (Table 1), as investors wait to see if trade and currency concerns plaguing emerging markets will spill over to developed economies.

- **US:** High momentum large and small cap names saw a spike in performance, with 11.1 and 6.6 percentage point swings, respectively, in Industry-adjusted 12-month Relative Price Strength spread performance since June
- **Developed Europe:** Valuation factors were an underperforming group, including such measures as TTM Free Cash Flow-to-Enterprise Value and Industry Relative Leading 4-QTRs EPS to Price
- **Developed Pacific:** Book-to-Market dropped from being a positive indicator in markets outside Japan to a strong negative signal, with a 12.5 percentage point swing to the weakest spread performance since February 2009
- **Emerging markets:** Large cap names outperformed, alongside lower risk names gauged by Average Monthly Trading Volume-to-Market Cap

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Table 1

Global factor quantile return spread performance snapshot, Aug 2018

Factor	Factor Group	US Large Cap	US Small Cap	Developed Europe	Developed Pacific ex Japan	Japan Standard Cap	Emerging Markets
Book-to-Market		-5.89	-5.91	-5.13	-8.06	-1.76	-0.95
Forward 12-M EPS-to-Enterprise Value	Deep Value	-6.44	-4.69	-1.05	-6.60	-2.45	-0.42
TTM EBITDA-to-Enterprise Value		-7.20	-7.02	-0.87	-6.16	-2.70	0.02
TTM Free Cash Flow-to-Enterprise Value		1.08	-1.21	-2.29	-0.83	-0.35	1.33
Industry Relative Leading 4-QTRs EPS to Price	Relative Value	-0.27	-1.60	-3.32	-7.03	1.67	0.15
Industry Relative TTM Dividend Yield		-1.68	-1.91	-0.64	-1.17	2.30	1.59
Fixed Assets Turnover Ratio		4.89	-0.14	-0.51	1.40	0.51	-0.36
Inventory Turnover Ratio	Management Quality	1.34	0.34	0.31	1.06	-0.59	-0.37
Net Operating Asset Turnover		2.67	-1.83	-0.26	-0.67	0.03	0.11
Change in Accruals to Assets		1.43	2.43	-1.09	-0.38	0.13	-0.28
Change in TTM COGS vs. Inventory Level	Earnings Quality	-1.89	3.96	0.17	1.05	-0.41	2.01
Change in TTM Sales vs. Accounts Receivable		-3.03	-2.57	-0.95	0.26	0.24	0.10
Working Capital Accruals		-4.73	-1.79	-0.94	-0.58	-0.07	0.75
1-yr Growth in TTM Free Cash Flow	Historical Growth	3.38	1.03	-0.28	-4.84	1.82	1.56
Reinvestment Rate		-3.55	-3.29	-0.76	-2.71	-1.02	1.18
Average Monthly Trading Volume-to-Market Cap		1.05	2.44	-4.26	-1.46	1.18	-4.30
60-Month Beta	Liquidity, Risk & Size	2.01	0.03	2.74	6.36	-1.31	-0.62
Asset Quality Index		1.09	2.01	1.26	1.00	-0.38	-1.38
Operating Leverage		-0.02	1.84	-0.67	-1.93	-0.53	-0.20
Natural Logarithm of Market Capitalization		0.39	-2.20	0.42	-1.08	-1.78	-3.61
2-Year Ahead EPS Growth		-1.14	-3.68	-2.60	-3.81	-0.67	-1.42
3-M Revision in FY2 EPS Forecasts	Earnings Momentum	-1.01	-0.69	1.07	1.69	0.78	1.71
Real Earnings Surprise		2.77	-0.82	0.87	-1.13	-0.67	0.39
24-Month Value at Risk		1.15	-3.11	1.30	-5.82	-0.22	1.10
5-day Industry Relative Return	Price Momentum	1.73	0.98	1.80	0.16	-0.07	-0.76
Industry-adjusted 12-month Relative Price Strength		5.58	5.58	0.88	3.40	0.21	0.32
Rational Decay Alpha		3.97	0.66	0.69	1.66	1.22	-0.91
Demand Supply Ratio	Short Sentiment	0.55	-1.38	0.10	-4.77	-1.19	5.10
Implied Loan Rate		1.16	1.98	0.11	-4.28	-1.74	2.61

Source: IHS Markit

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United States

US Large Cap

The August manufacturing PMI dipped to a nine-month low of 54.73, down from 55.3 in July, yet still indicating strong overall growth. Rates of output and new order growth eased, but remained solid, and inflationary pressures softened. In equity markets, stocks posted a fifth consecutive month of positive gains despite trade relations remaining a key focus of concern for investors.

Compared with the prior month in which a broad set of themes were represented on the list of top performing factors in the US Large Cap universe, August results (Table 2) were starkly different. In this case, we find Price Momentum occupying the majority of top factor performers. 18-Month Active Return with 1-Month Lag (9.25%) took the lead with a 10.4 percentage point swing in month-on-month spread (Figure 1), after a five month dry spell. Investors chased high momentum names at the expense of valuation, which was broadly represented on the list of bottom performing factors (Table 3). For example, Tobin's Q (-10.03%), a Liquidity, Risk & Size measure of a firm's market value relative to its replacement cost, turned in a double-digit negative spread, followed by several Deep Value factors including Leading 12 Month EBITDA/EV (-9.67%).

Table 2

US Large Cap top decile return spread factor performance, Aug 2018		
Factor	Decile spread (%)	Factor group
18-Month Active Return with 1-Month Lag	9.25	Price Momentum
4-52 Week Price Oscillator	9.15	Price Momentum
50-200 Day Stock Price Ratio	8.64	Price Momentum
30-75 Week Stock Price Ratio	8.63	Price Momentum
Earnings Shortfall	8.36	Earnings Quality
9-Month Active Return with 1-Month Lag	7.80	Price Momentum
1-Year Price Momentum Indicator	7.74	Price Momentum
Fama-French Momentum	7.72	Price Momentum
3-yr Compound Annual Sales Growth	7.68	Historical Growth
24-Month Active Return with 1-Month Lag	7.62	Price Momentum
39-Week Return with 4-week Lag	7.61	Price Momentum
12-Month Active Return with 1-month Lag	7.57	Price Momentum
6-Month Active Return with 1-Month Lag	7.53	Price Momentum
15/36 Week Stock Price Ratio	7.18	Price Momentum
Industrial Production Sensitivity	6.73	Macro

Source: IHS Markit

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Figure 1

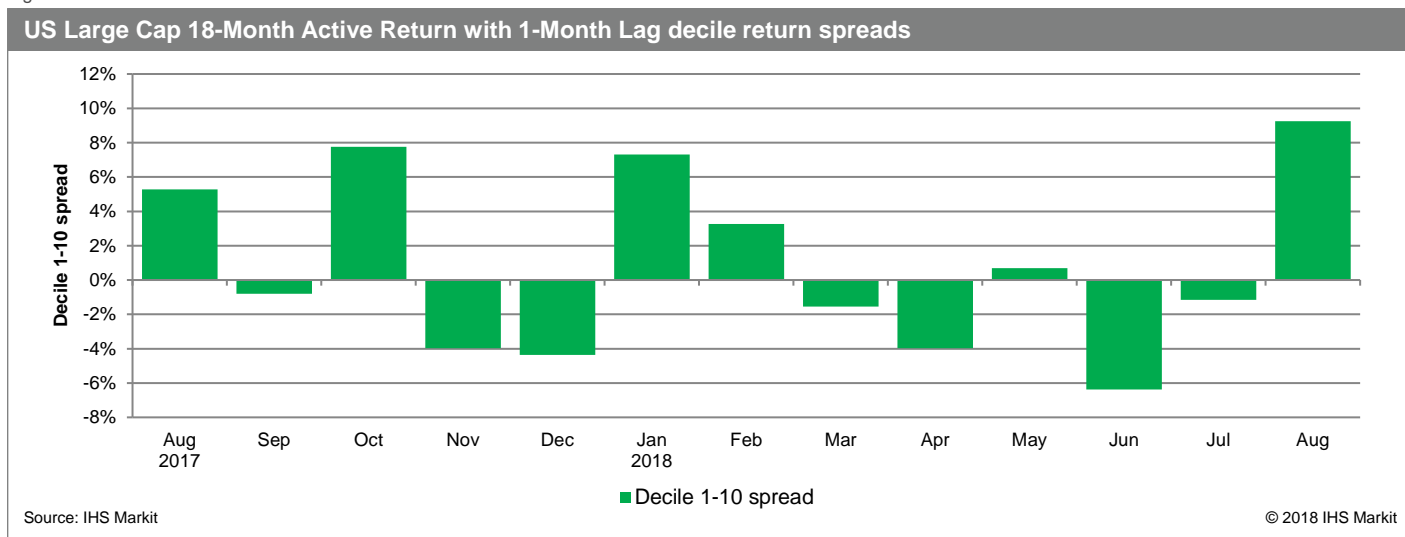


Table 3

Factor	Decile spread (%)	Factor group
Tobin q	-10.03	Liquidity, Risk & Size
Price-to-Total Assets	-9.68	Deep Value
Leading 12 Month EBITDA/ EV	-9.67	Deep Value
Time Weighted Cash Yield	-9.59	Deep Value
TTM Operating Income to Enterprise Value	-8.82	Deep Value
Asset Composition	-8.72	Liquidity, Risk & Size
Price-to-Book Return-on-Equity Combination (PB-ROE)	-8.69	Deep Value
Price Above Last 260-day Lowest Trading Price	-8.54	Price Momentum
Time Weighted EBITDA/ EV	-8.50	Deep Value
Natural Logarithm of Total Assets	-7.94	Liquidity, Risk & Size

Source: IHS Markit © 2018 IHS Markit

US Small Cap

Top and bottom factor performance among small caps in August (Tables 4 and 5, respectively) similarly tracked that of large caps, with broad representation of Price Momentum and Deep Value signals. The factors at the extremes in both cases were 4-52 Week Price Oscillator (11.55%) and Price-to-Total Assets (-11.41%), respectively, which exhibited double-digit spreads and the distribution of returns across deciles demonstrates investors’ strong conviction for the trades (Figure 2).

Table 4

US Small Cap top decile return spread factor performance, Aug 2018		
Factor	Decile spread (%)	Factor group
4-52 Week Price Oscillator	11.55	Price Momentum
50-200 Day Stock Price Ratio	11.15	Price Momentum
6-Month Active Return with 1-Month Lag	10.50	Price Momentum
15/36 Week Stock Price Ratio	10.17	Price Momentum
39-Week Return with 4-week Lag	8.36	Price Momentum
9-Month Active Return with 1-Month Lag	7.81	Price Momentum
Industrial Production Sensitivity	7.79	Macro
26-Week Relative Price Strength	7.79	Price Momentum
Inventory Value Concentration	7.25	Short Sentiment
18-Month Active Return with 1-Month Lag	7.20	Price Momentum
1-Year Price Momentum Indicator	6.83	Price Momentum
12-Month Active Return with 1-month Lag	6.69	Price Momentum
R-Sqr of 3-yr TTM Sales Trend Line	6.57	Historical Growth
Max Qty Bin Concentration	6.56	Short Sentiment
Debt to Market Cap	6.56	Liquidity, Risk & Size

Source: IHS Markit

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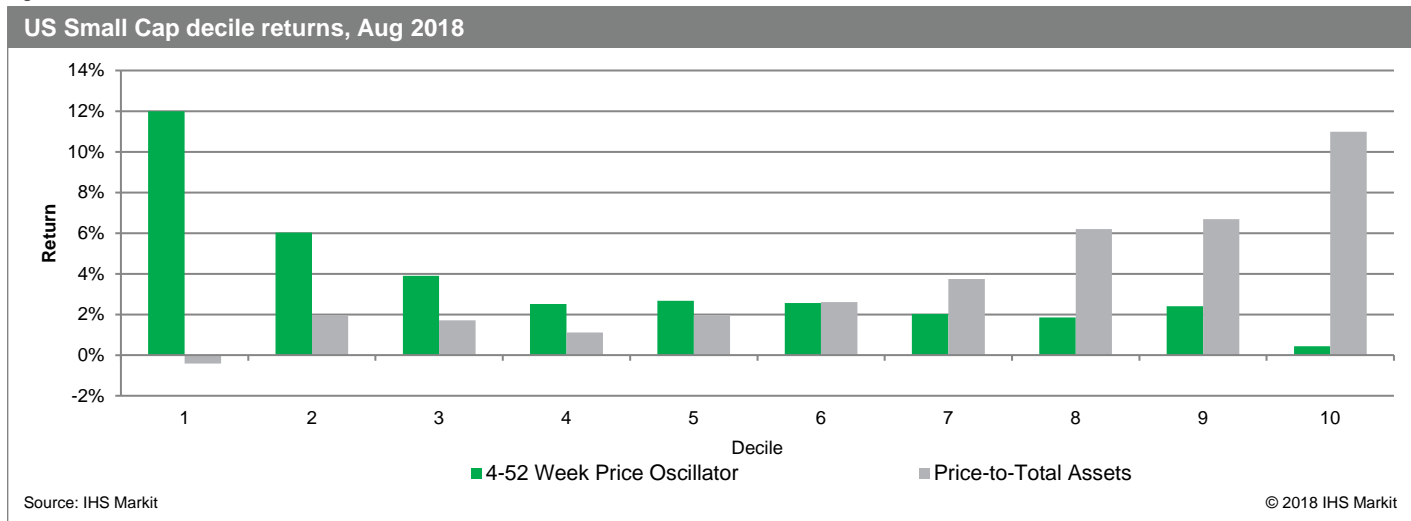
Table 5

US Small Cap bottom decile return spread factor performance, Aug 2018		
Factor	Decile spread (%)	Factor group
Price-to-Total Assets	-11.41	Deep Value
Latin America Sales Exposure	-10.09	Macro
Tobin q	-10.08	Liquidity, Risk & Size
Price-to-Book Return-on-Equity Combination (PB-ROE)	-9.84	Deep Value
Time Weighted EBITDA/ EV	-8.97	Deep Value
Risk-adjusted PEG Ratio	-8.33	Earnings Momentum
Trading Turnover Ratio	-8.01	Liquidity, Risk & Size
Leading 12 Month Book Yield	-7.78	Deep Value
Leading 12 Month EBITDA/ EV	-7.40	Deep Value
Graham Number Fair Value Premium	-7.24	Deep Value

Source: IHS Markit

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Figure 2



Source: IHS Markit

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Europe

Eurozone manufacturing growth softened in August, with the PMI posting at 54.6 on a downtick from 55.1 in July. While maintaining a 62-month run of expansion, the final reading pointed to the slowest growth since November 2016. At the country level, the Netherlands and Austria led the way, with a notable divergence from the weakest performing country, as Italy registered its worst reading in two years. Business optimism dampened amid concerns about tariffs and trade wars along with political worries, contributing to the weakest monthly performance in European stocks since March.

Like US markets, developed European investors demonstrated favor toward momentum signals and disfavor toward valuation indicators (Tables 6 and 7, respectively), though with somewhat lower conviction. Outside of Price Momentum, Debt to Market Cap (4.53%) was a top performing factor, where positive returns were awarded across the top five deciles, compared with negative returns for bottom deciles (Figure 3), suggesting a bias against highly levered firms. Inflation Sensitivity (3.23%) was also a positive indicator, as firms which tend to outperform during periods of increasing inflation were favored.

Table 6

Developed Europe top decile return spread factor performance, Aug 2018

Factor	Decile spread (%)	Factor group
50-200 Day Stock Price Ratio	5.03	Price Momentum
6-Month Active Return with 1-Month Lag	4.84	Price Momentum
26-Week Relative Price Strength	4.67	Price Momentum
Debt to Market Cap	4.53	Liquidity, Risk & Size
15/36 Week Stock Price Ratio	3.97	Price Momentum
Natural Logarithm of Market Capitalization (USD)	3.81	Liquidity, Risk & Size
39-Week Return with 4-week Lag	3.49	Price Momentum
Std Dev of FY2 EPS Estimates-to-Price	3.46	Earnings Momentum
Net Debt to EBITDA	3.39	Management Quality
Std Dev of FY1 EPS Estimates-to-Price	3.31	Earnings Momentum
EBITDA-to-Debt	3.28	Liquidity, Risk & Size
6-Month Nominal Change in 18-Month Alpha	3.27	Price Momentum
Inflation Sensitivity	3.23	Macro
9-Month Active Return with 1-Month Lag	3.08	Price Momentum
1-Year Price Momentum Indicator	3.00	Price Momentum

Source: IHS Markit

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Table 7

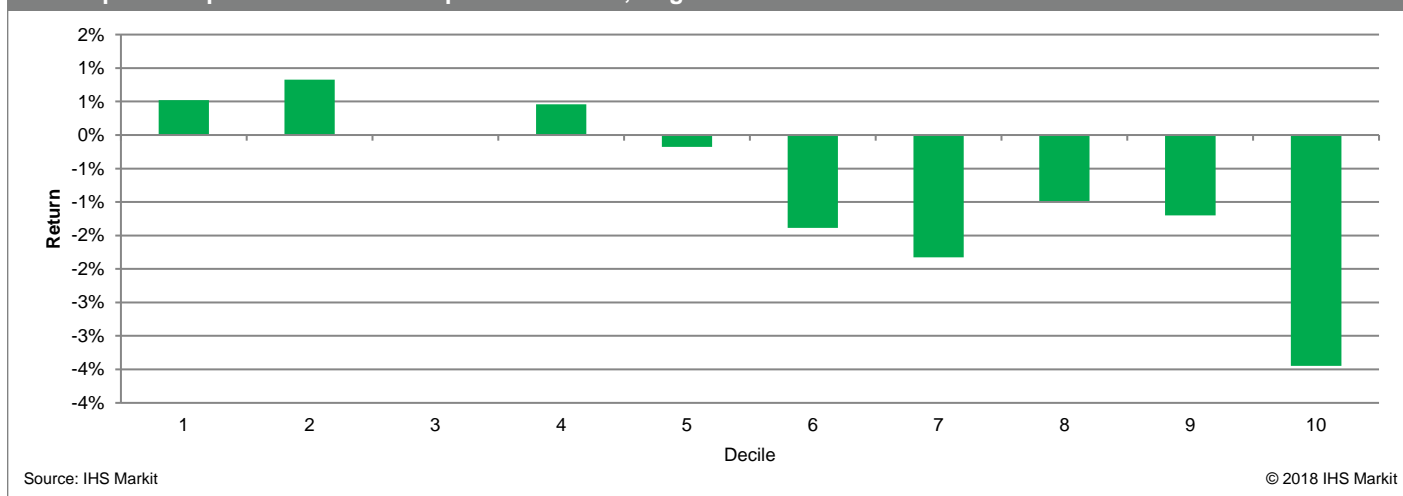
Developed Europe bottom decile return spread factor performance, Aug 2018

Factor	Decile spread (%)	Factor group
Leading 12 Month Book Yield	-6.69	Deep Value
Tobin q	-6.15	Liquidity, Risk & Size
Time Weighted Book Yield	-6.12	Deep Value
Natural Logarithm of Total Assets (USD)	-5.97	Liquidity, Risk & Size
Price-to-Total Assets	-5.87	Deep Value
Time Weighted Cash Yield	-5.71	Deep Value
Book-to-Market	-5.13	Deep Value
Leading 12 Month Cash Yield	-4.83	Deep Value
Natural Logarithm of TTM Sales (USD)	-4.70	Liquidity, Risk & Size
Market Leverage	-4.36	Liquidity, Risk & Size

Source: IHS Markit

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Figure 3

Developed Europe Debt to Market Cap decile returns, Aug 2018

Source: IHS Markit

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Asia-Pacific

Sentiment among manufacturing firms slipped in August among the two largest Asian economies - Japan and China. Japan remained the stronger of the two, with the PMI registering at 52.5, a slight uptick from 52.3 in July, as production rose amid faster new order growth, though export orders declined for a second time in three months. PMI data in China signalled the weakest improvement in the health of the manufacturing sector since June 2017, with a reading of 50.6, down slightly from 50.8 in July, as trade war concerns weighed on optimism. Similarly, stocks were modestly higher in Japan, while Chinese stocks saw negative returns for the month.

Momentum and valuation measures were also key top (Table 8) and bottom (Table 9) performers in developed Asia-Pacific markets outside of Japan in August. 6-Month Nominal Change in 18-Month Alpha took the lead with a robust 12.18% spread, a significant increase over recent results (Figure 4), marking the highest spread since May 2009. Time Weighted Book Yield (-9.88%) was the weakest performer and, while the factor has struggled recently (Figure 4), this month's performance was the lowest since October 2008.

Factor performance in Japan was somewhat more unique relative to other developed markets. The top positions on the factor leaderboard in August (Table 10) were occupied by Macro indicators. Oil Prices Sensitivity (3.89%) and North America Sales Exposure (3.38%) took the top two spots, both representing a shift in recent trends (Figure 5). Bottom performing factors covered a broader range of styles including R&D Intensity (-4.29%), Industry Relative TTM Oper Cash Flow-to-Total Assets (-4.08%), Average Trading Volume in Preceding 6-month (-3.72%) and Earnings Torpedo (-3.42%).

Table 8

Developed Pacific exJapan top decile return spread factor performance, Aug 2018		
Factor	Decile spread (%)	Factor group
6-Month Nominal Change in 18-Month Alpha	12.18	Price Momentum
39-Week Return with 4-week Lag	8.77	Price Momentum
9-Month Active Return with 1-Month Lag	8.54	Price Momentum
Slope of 66 Week Price Trend Line	8.33	Price Momentum
Slope of 52 Week Price Trend Line	7.98	Price Momentum
12-Month Active Return with 1-month Lag	7.88	Price Momentum
30-75 Week Stock Price Ratio	7.53	Price Momentum
60-Month Beta	6.36	Liquidity, Risk & Size
Fama-French Momentum	6.31	Price Momentum
3-Month Active Return	5.89	Price Momentum
Latin America Sales Exposure	5.68	Macro
18-Month Active Return with 1-Month Lag	5.62	Price Momentum
Market Cap per Analyst	5.13	Liquidity, Risk & Size
FY1 EPS Estimates Dispersion	5.08	Earnings Momentum
TTM Capital Expenditures-to-Price	5.05	Deep Value

Source: IHS Markit

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Table 9

Developed Pacific exJapan bottom decile return spread factor performance, Aug 2018		
Factor	Decile spread (%)	Factor group
Time Weighted Book Yield	-9.88	Deep Value
Leading 12 Month Book Yield	-9.74	Deep Value
Natural Logarithm of Total Assets (USD)	-9.42	Liquidity, Risk & Size
Normalized Earnings Yield	-9.24	Deep Value
Current Liabilities-to-Price	-9.03	Liquidity, Risk & Size
Price-to-Total Assets	-8.84	Deep Value
Average Trading Volume in Preceding 6-month	-8.74	Price Momentum
Net Asset Value to Price	-8.73	Deep Value
60-Month Alpha	-8.65	Price Momentum
Tobin q	-8.17	Liquidity, Risk & Size

Source: IHS Markit

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Figure 4

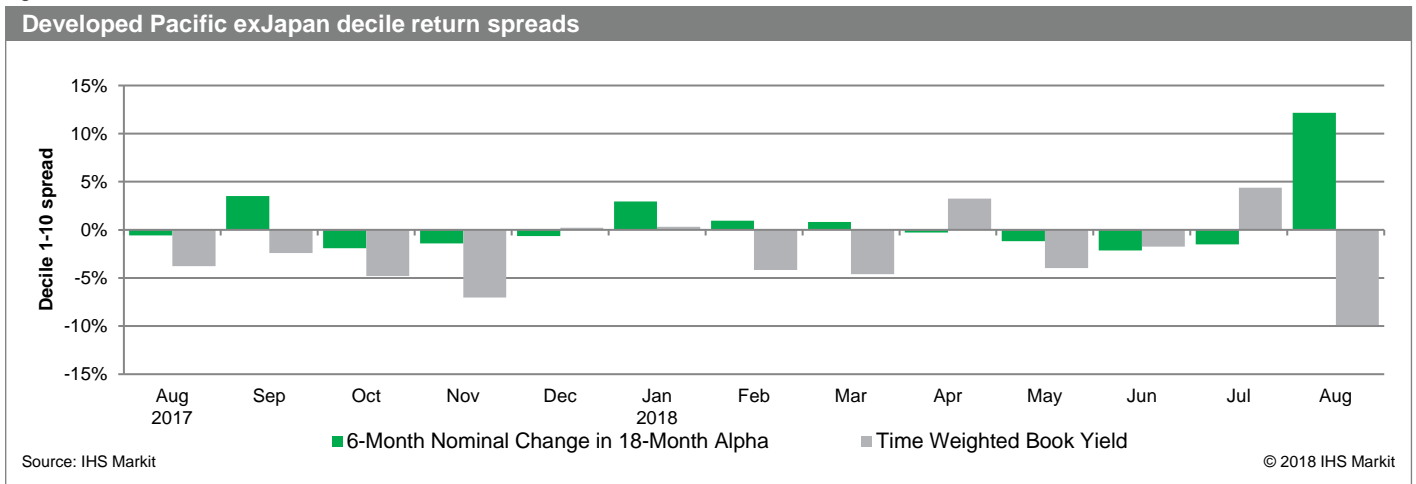


Table 10

Japan Standard Cap top decile return spread factor performance, Aug 2018

Factor	Decile spread (%)	Factor group
Oil Prices Sensitivity	3.89	Macro
North America Sales Exposure	3.38	Macro
Housing Starts Sensitivity	3.17	Macro
Risk-adjusted PEG Ratio	2.48	Earnings Momentum
1-yr Change in Price-adj TTM EPS	2.36	Historical Growth
1-yr Change in Price-adj TTM Cash Flow	2.33	Historical Growth
Industry Relative TTM Dividend Yield	2.30	Relative Value
Number of Analyst Coverage	2.29	Liquidity, Risk & Size
Demand Value Concentration	2.17	Short Sentiment
Average Payable Period	2.12	Management Quality
1-yr Growth in TTM Oper Cash Flow	1.93	Historical Growth
Industry Relative TTM EBITDA-to-Price	1.88	Relative Value
Inventory-to-Total Assets	1.85	Management Quality
1-yr Growth in TTM Free Cash Flow	1.82	Historical Growth
Ohlson Bankruptcy Score	1.81	Liquidity, Risk & Size

Source: IHS Markit © 2018 IHS Markit

Figure 5

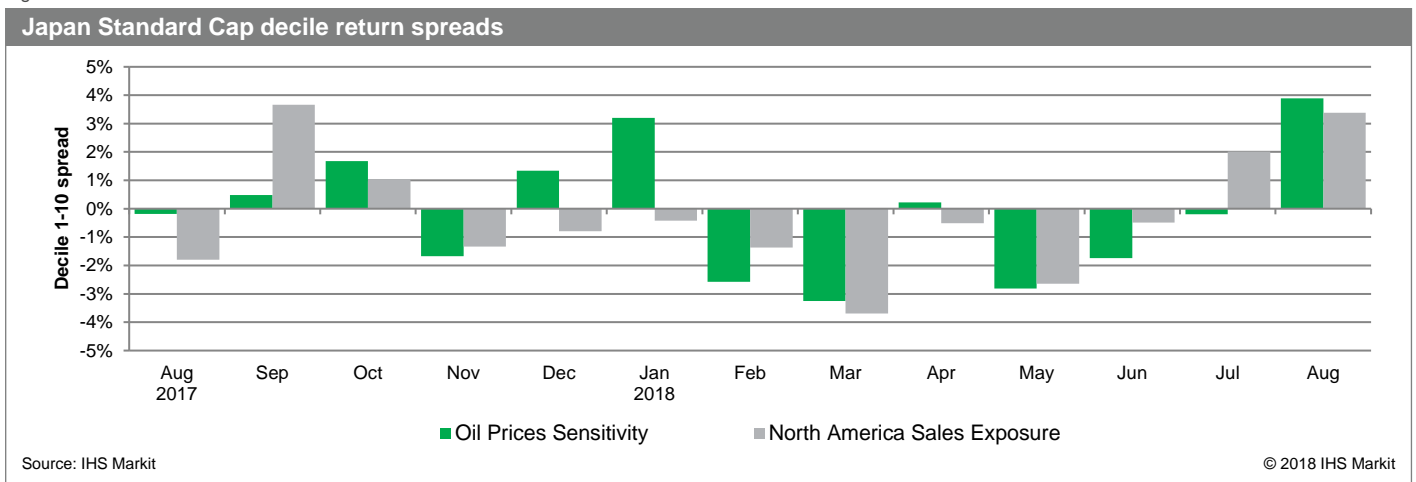


Table 11

Japan Standard Cap bottom decile return spread factor performance, Aug 2018		
Factor	Decile spread (%)	Factor group
R&D Intensity	-4.29	Management Quality
Industry Relative TTM Oper Cash Flow-to-Total Assets	-4.08	Relative Value
Average Trading Volume in Preceding 6-month	-3.72	Price Momentum
Earnings Torpedo	-3.42	Earnings Momentum
Std Dev of FY2 EPS Estimates-to-Price	-3.24	Earnings Momentum
Net Asset Value to Price	-2.88	Deep Value
Yield Curve Slope Sensitivity	-2.87	Macro
Operating Cash Flow Ratio	-2.76	Liquidity, Risk & Size
Stock Illiquidity	-2.74	Liquidity, Risk & Size
TTM EBITDA-to-Enterprise Value	-2.70	Deep Value

Source: IHS Markit

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Emerging Markets

Lastly, we review top (Table 12) and bottom (Table 13) performing factors in emerging markets in August. Several styles were represented on the list of top performers, led by Retained Earnings-to-Total Assets (4.10%). 52-Week High (4.07%) and 60-Day Residual Risk (3.70%) took the second and third spots, indicating that investors favored stocks trading close to their highs, a positive signal in all but two months over the past year, while also favoring low risk names, a trend that took hold after the start of the year (Figure 6). At the other end of the spectrum, the weakest performing factors include Average Monthly Trading Volume-to-Market Cap (-4.30%) and Natural Logarithm of Market Capitalization (-3.61%), suggesting a bias toward lower risk and larger cap names.

Table 12

Emerging Markets top quintile return spread factor performance, Aug 2018		
Factor	Decile spread (%)	Factor group
Retained Earnings-to-Total Assets	4.10	Management Quality
52-Week High	4.07	Price Momentum
60-Day Residual Risk	3.70	Liquidity, Risk & Size
Market Cap per Analyst	3.59	Liquidity, Risk & Size
Housing Starts Sensitivity	3.55	Macro
SG&A Expenses-to-Sales	3.48	Management Quality
1-Month Realized Stock Return Volatility	3.37	Liquidity, Risk & Size
Distress Measure	3.25	Liquidity, Risk & Size
CV of Prior 90-Day Closing Prices	3.16	Price Momentum
Std Dev of FY2 EPS Estimates-to-Price	3.14	Earnings Momentum
Average Trading Volume in Preceding 6-month	3.06	Price Momentum
Std Dev of FY1 EPS Estimates-to-Price	2.92	Earnings Momentum
Natural Logarithm of Total Assets	2.67	Liquidity, Risk & Size
Natural Logarithm of TTM Sales	2.62	Liquidity, Risk & Size
1-Month Stock Return Interquartile Range	2.61	Liquidity, Risk & Size

Source: IHS Markit

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Table 13

Emerging Markets bottom quintile return spread factor performance, Aug 2018

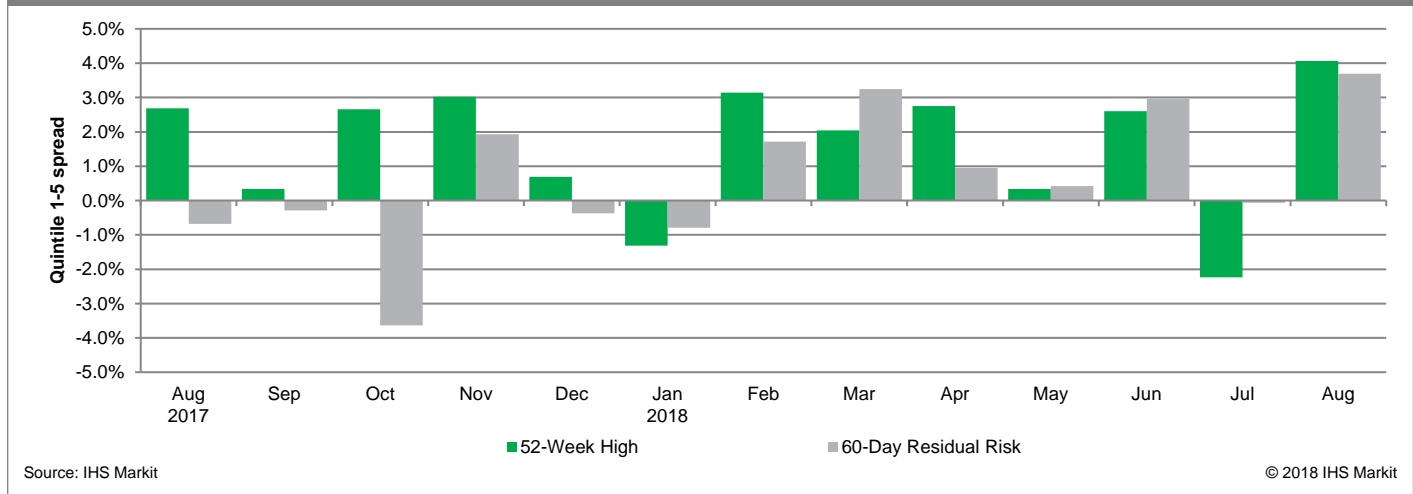
Factor	Decile spread (%)	Factor group
Average Monthly Trading Volume-to-Market Cap	-4.30	Liquidity, Risk & Size
Natural Logarithm of Market Capitalization	-3.61	Liquidity, Risk & Size
Natural Logarithm of Closing Price	-3.35	Liquidity, Risk & Size
Attention Span Ratio	-2.80	Management Quality
Ohlson Bankruptcy Score	-2.74	Liquidity, Risk & Size
Time Weighted Sales Yield	-2.51	Deep Value
Natural Logarithm of Market Capitalization (USD)	-2.45	Liquidity, Risk & Size
Time Weighted EBITDA/ EV	-2.45	Deep Value
Latin America Sales Exposure	-2.40	Macro
1-Month Active Return	-2.39	Price Momentum

Source: IHS Markit

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Figure 6

Emerging Markets quintile return spreads



Source: IHS Markit

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