



Inaugurating Dow 20,000

February 8, 2017

Markets from the US, the UK and Japan have passed their own long-term or record-breaking milestones in January as investors focused on buoyant economic indicators. While their respective central banks sit tight and evaluate the impact of the new US administration, money moved into risk assets across many global markets (Table 1).

- US: Investors moved out on the risk curve, with underperformance to low-risk names gauged by 24-Month Value at Risk
- Developed Europe: Industry-adjusted 12-month Relative Price Strength captured broad market momentum, underscoring improving investor mood
- Developed Pacific: Short sentiment signals, including Demand Supply Ratio and Implied Loan Rate, remained positive indicators in developed Pacific markets outside of Japan
- Emerging markets: Undervalued stocks attractively scored by book value and high beta names outperformed

Table 1: Global factor quantile return spread performance snapshot, Jan 2017

Factor	Factor Group	US Large Cap	US Small Cap	Developed Europe	Developed Pacific exJapan	Japan Standard Cap	Emerging Markets
Book-to-Market		0.09	-1.79	0.08	2.50	-0.11	2.49
Forward 12-M EPS-to-Enterprise Value	Deep Value	1.41	-2.25	-1.25	0.29	-0.22	0.04
TTM EBITDA-to-Enterprise Value		-2.46	-1.49	-1.56	1.88	0.44	1.60
TTM Free Cash Flow-to-Enterprise Value		0.54	-1.66	-0.20	1.58	0.02	-0.97
Industry Relative Leading 4-QTRs EPS to Price	Relative Value	2.74	-0.76	-2.56	0.79	0.14	-0.01
Industry Relative TTM Dividend Yield		0.93	0.75	-1.53	1.46	2.26	-2.40
Fixed Assets Turnover Ratio	Management Quality	2.37	-1.15	2.23	-3.23	2.13	-0.46
Inventory Turnover Ratio		-0.65	-0.66	-1.61	0.55	-0.09	-0.17
Net Operating Asset Turnover		-0.32	-2.86	0.41	0.37	0.17	-0.48
Change in Accruals to Assets	Earnings Quality	-0.79	1.18	-0.87	0.41	-0.45	-0.15
Change in TTM COGS vs. Inventory Level		0.97	-4.14	0.26	0.13	0.76	-0.34
Change in TTM Sales vs. Accounts Receivable		2.48	-1.27	1.09	1.54	-0.26	-0.06
Working Capital Accruals		-2.28	-2.08	0.27	-5.74	-0.05	-0.77
1-yr Growth in TTM Free Cash Flow	Historical Growth	2.02	-1.74	0.80	1.27	1.98	-0.41
Reinvestment Rate		-0.58	-4.37	0.18	-0.14	-2.17	-0.40
Average Monthly Trading Volume-to-Market Cap	Liquidity, Risk & Size	0.60	6.09	-1.66	2.64	1.84	2.69
60-Month Beta		-2.46	-2.07	-2.19	-2.88	-2.14	-3.78
Asset Quality Index		-2.82	-0.19	-0.38	-1.60	-1.57	-0.88
Operating Leverage		0.60	2.34	-1.11	0.42	-0.28	1.25
Natural Logarithm of Market Capitalization		1.63	-3.05	-0.14	-1.25	0.33	1.43
2-Year Ahead EPS Growth		-0.94	2.43	1.13	0.47	2.07	2.79
3-M Revision in FY2 EPS Forecasts	Earnings Momentum	-1.47	3.40	2.25	1.57	0.35	0.13
Real Earnings Surprise		0.59	0.94	-0.20	-4.10	-0.03	-0.64
24-Month Value at Risk		-4.09	-5.81	-1.10	0.05	-0.64	-3.26
5-day Industry Relative Return	Price Momentum	1.36	-0.17	4.05	3.59	0.73	1.05
Industry-adjusted 12-month Relative Price Strength		0.10	-0.78	2.47	2.51	-0.90	1.83
Rational Decay Alpha		-3.34	-2.33	-0.05	-3.69	-0.07	0.15
Demand Supply Ratio	Short Sentiment	-0.20	-3.74	1.43	5.41	-0.11	1.35
Implied Loan Rate		-0.88	-1.69	1.07	3.91	-0.50	-0.77

United States

US Large Cap

US service providers started the year with the fastest rise in business activity since late-2015, with the services PMI rebounding to 55.6 in January, up from December's three-month low of 53.9. The composite PMI, at 55.8 at the start of the year (54.1 in December), also reflected positive contributions to growth from the manufacturing sector (January PMI 55.0 versus 54.3 in December). After losing some ground from highs on January 25th, US equities still finished the month in positive territory, a third straight monthly advance on improvement in business and consumer sentiment.

Sales-based measures showed up in two different forms on the January list of top performing factors in the US Large Cap universe (Table 2). First, Yearly TTM Total Sales Growth Rate (5.05%) and 3-yr Compound Annual Sales Growth (4.86%) represented the Historical Growth style. Second, investors also rewarded firms with positive exposure to Asia-Pacific (3.98%) and Latin America (3.69%) sales. This marks a large swing in performance compared with the results since the election as the dollar gave back some of its post-election gains (Figure 1).

While 3-Month Active Return (5.09%), a short-term price reversal metric, was the top performer for the month, 52-Week High (-4.54%) was the weakest performer (Table 3), as investors favoured stocks trading the furthest from their annual high (Figure 2). A few other bottom performing signals of interest include 24-Month Value at Risk (-4.09%), suggesting a risk-on trade, Long-Term Growth Rate Estimates (-3.84%), indicating mistrust in analysts' long-term outlook, and North America Sales Exposure (-3.77%), taking the opposite stance from the aforementioned sales exposure factors.

Table 2: US Large Cap top decile return spread factor performance, Jan 2017

Factor	Decile Spread (%)	Factor Group
3-Month Active Return	5.09	Price Momentum
Yearly TTM Total Sales Growth Rate	5.05	Historical Growth
3-yr Compound Annual Sales Growth	4.86	Historical Growth
2-Month Active Return	4.03	Price Momentum
Asia-Pacific Sales Exposure	3.98	Macro
Latin America Sales Exposure	3.69	Macro
Reciprocal of Dividend Yield-adjusted PEG	3.69	Earnings Momentum
1-yr Change in Sales	3.64	Historical Growth
3-yr Growth in TTM Oper Cash Flow	3.60	Historical Growth
Inverse of PEG Ratio	3.54	Earnings Momentum
Unexpected Change in Accounts Receivable	3.51	Earnings Quality
Attention Span Ratio	3.19	Management Quality
Earnings Torpedo	3.05	Earnings Momentum
Advertising Intensity	2.95	Management Quality
TTM Free Cash Flow-to-TTM Sales	2.94	Management Quality

Figure 1: US Large Cap Sales Exposure decile return spreads, Jan 2016 – Jan 2017

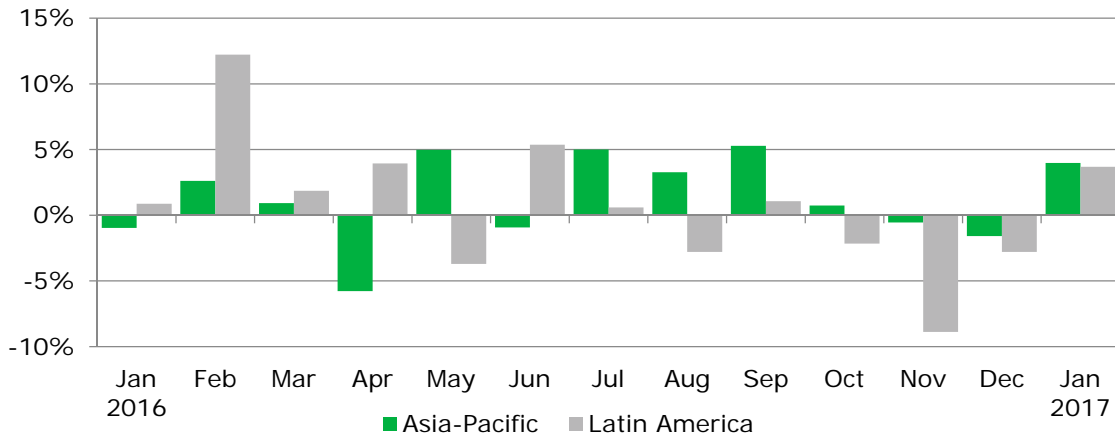
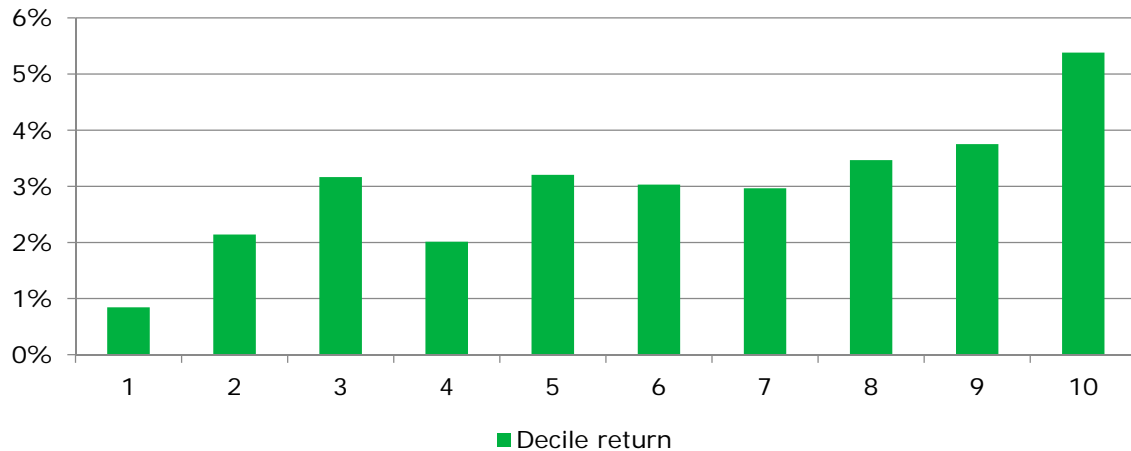


Table 3: US Large Cap bottom decile return spread factor performance, Jan 2017

Factor	Decile Spread (%)	Factor Group
52-Week High	-4.54	Price Momentum
6-Month Nominal Change in 36-Month Alpha	-4.33	Price Momentum
Cash & Equivalents-to-Current Liabilities	-4.14	Liquidity, Risk & Size
Cash-to-Sales	-4.11	Management Quality
24-Month Value at Risk	-4.09	Price Momentum
1-Month Stock Return Interquartile Range	-3.88	Liquidity, Risk & Size
Long-Term Growth Rate Estimates	-3.84	Earnings Momentum
Regression Error of 60-Month CAPM	-3.84	Liquidity, Risk & Size
North America Sales Exposure	-3.77	Macro
Stock Return Volatility	-3.64	Liquidity, Risk & Size

Figure 2: US Large Cap 52-Week High decile returns, Jan 2017



US Small Cap

Top performing factors in the US Small Cap universe in January (Table 4) also included Latin America (6.00%) and Asia-Pacific (5.53%) Sales Exposure, along with their EMEA counterpart (5.80%). Other large cap themes that carried over include a positive spread for 3-Month Active Return (5.85%) and a negative spread for 24-Month Value at Risk (-5.81%). We also highlight Oil Prices Sensitivity (4.26%) whose strong performance may partly reflect investor optimism on OPEC progress toward reaching its output-cut target and an Iran missile test that eventually led to new US sanctions.

Table 4: US Small Cap top decile return spread factor performance, Jan 2017

Factor	Decile Spread (%)	Factor Group
Average Monthly Trading Volume-to-Market Cap	6.09	Liquidity, Risk & Size
Number of Analyst Coverage	6.02	Liquidity, Risk & Size
Latin America Sales Exposure	6.00	Macro
3-Month Active Return	5.85	Price Momentum
EMEA Sales Exposure	5.80	Macro
Asia-Pacific Sales Exposure	5.53	Macro
60-Month Active Return with 12-Month Lag	5.48	Price Momentum
Inventory-to-Total Assets	5.46	Management Quality
Ohlson Bankruptcy Score	4.91	Liquidity, Risk & Size
2-Month Active Return	4.87	Price Momentum
4-week Industry Relative Return	4.67	Price Momentum
Accounting Accruals	4.41	Earnings Quality
Oil Prices Sensitivity	4.26	Macro
Sortino Ratio	3.90	Price Momentum
Capital Gearing Ratio	3.78	Liquidity, Risk & Size

Table 5: US Small Cap bottom decile return spread factor performance, Jan 2017

Factor	Decile Spread (%)	Factor Group
3-yr MAD of TTM Net Income	-6.12	Liquidity, Risk & Size
Stability of 3-yr TTM Sales	-5.93	Historical Growth
Basic Defensive Interval	-5.83	Liquidity, Risk & Size
24-Month Value at Risk	-5.81	Price Momentum
24-Month Residual Return Variance	-5.70	Price Momentum
5-day average trading volume	-5.58	#N/A
Average Collection Period	-5.37	Management Quality
Average Trading Volume in Preceding 6-month	-5.31	Price Momentum
Stock Return Volatility	-4.96	Liquidity, Risk & Size
Trailing 12-Month Sales to Invested Capital	-4.91	Management Quality

Europe

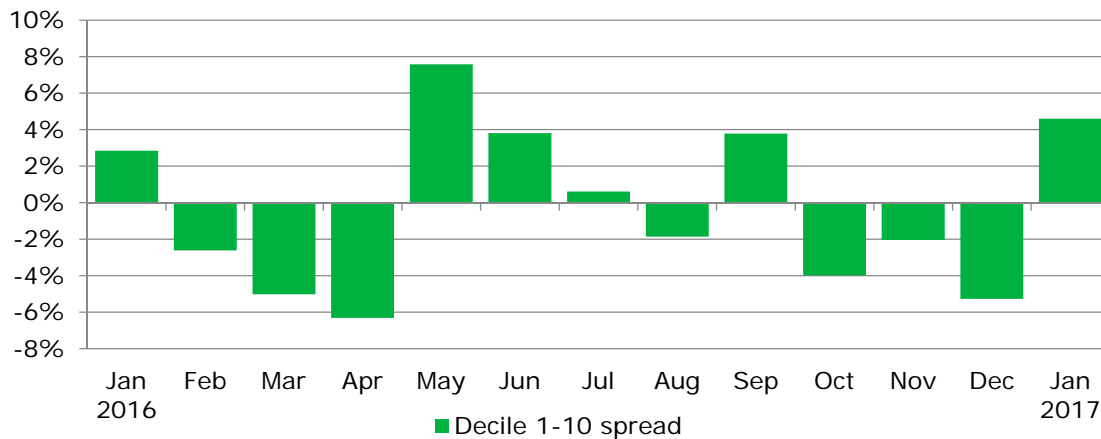
The eurozone economy made a strong start to 2017, with the composite PMI posting at 54.4, unchanged from December. Growth of manufacturing production and service sector business activity both signalled expansion, with manufacturing activity outpacing services for an eighth consecutive month. Ireland registered the strongest expansion overall, followed by Germany, Spain and France. European equities tended to track US large caps in January, giving back earlier gains in the month to finish slightly negative after December's big advance.

Price and Earnings Momentum measures nearly filled out the totality of the list of outperforming factors in the Developed Europe universe in January (Table 6), a reversal from prior month results. 12-Month Active Return with 1-month Lag (4.60%) took the lead, reversing the 2016 trend of underperformance on a nearly 10 percentage point swing in month-on-month spread performance (Figure 3). Asia-Pacific Sales Exposure (6.28%), the top performer and sole exception on the list, has been rewarded markedly since Brexit as currency markets reacted to the vote.

The value theme, which was displaced by momentum on the leader board, made its way to the list of bottom performing factors in January (Table 7). However, in this case, Relative Value joined Deep Value at the extreme, including 5-yr Relative TTM Free Cash Flow-to-Price (-2.99%) and Industry Relative TTM Cash Flow-to-Price (-2.65%) along with TTM Dividend Yield (-2.72%).

Table 6: Developed Europe top decile return spread factor performance, Jan 2017

Factor	Decile Spread (%)	Factor Group
Asia-Pacific Sales Exposure	6.28	Macro
12-Month Active Return with 1-month Lag	4.60	Price Momentum
15/36 Week Stock Price Ratio	4.49	Price Momentum
5-day Industry Relative Return	4.05	Price Momentum
Fama-French Momentum	3.93	Price Momentum
6-Month Active Return with 1-Month Lag	3.90	Price Momentum
50-200 Day Stock Price Ratio	3.88	Price Momentum
9-Month Active Return with 1-Month Lag	3.82	Price Momentum
60-Month Alpha	3.47	Price Momentum
14 Day Relative Strength Index	3.44	Price Momentum
Time Weighted Earnings Revision	3.29	Earnings Momentum
30-75 Week Stock Price Ratio	3.25	Price Momentum
39-Week Return with 4-week Lag	3.19	Price Momentum
Averaged Last 6-M EPS Revisions for FY2	3.11	Earnings Momentum
60-Month Active Return with 12-Month Lag	3.04	Price Momentum

Figure 3: Developed Europe 12-Month Active Return with 1-month Lag decile return spreads, Jan 2016 – Jan 2017

Table 7: Developed Europe bottom decile return spread factor performance, Jan 2017

Factor	Decile Spread (%)	Factor Group
Working Capital-to-Total Assets	-3.29	Management Quality
Cash & Equivalents-to-Current Liabilities	-3.24	Liquidity, Risk & Size
Credit Risk Premium Sensitivity	-3.00	Macro
5-yr Relative TTM Free Cash Flow-to-Price	-2.99	Relative Value
Price Above Last 260-day Lowest Trading Price	-2.99	Price Momentum
Working Capital-to-Trailing 12-Month Sales	-2.96	Management Quality
5-yr Relative TTM Dividend Yield	-2.78	Relative Value
TTM Dividend Yield	-2.72	Deep Value
Industry Relative TTM Cash Flow-to-Price	-2.65	Relative Value
Current Ratio	-2.58	Liquidity, Risk & Size

Asia-Pacific

Operating conditions remained in expansion territory at manufacturing and service companies in the two largest Asian economies. Solid paces of improvement at Japanese manufacturing (PMI 52.7) along with services (PMI 51.9) firms, albeit slightly slower, were reflected in the headline Japan composite PMI posting at 52.3 in January, slightly down from 52.8 in December. Slower increases in Chinese manufacturing (PMI 51.0) and service (PMI 53.1) providers in January contributed to a slight softening of growth momentum, captured by a composite PMI of 52.2, compared with December's 45-month high of 53.5. Meanwhile, Asian stocks wrapped up the first month of the year with their best performance since July.

Value was a key driver in Developed Pacific exJapan markets in January (Table 8), led by Leading 12 Month Book Yield (6.20%). Short Sentiment signals, which were well-rewarded in 2016, moved back into favour with Demand Supply Ratio capturing a 7.8 percentage point month-on-month bounce in spread performance (Figure 4).

Alternatively, Earnings and Price Momentum factors occupied the list of underperformers (Table 9), represented by measures such as Std Dev of FY1 EPS Estimates-to-Price (-5.31%) and 24-Month Active Return with 1-Month Lag (-4.60%).

In the Japan Standard Cap universe (Table 10), top measures included a wide range of styles, including Industry Relative TTM Dividend Yield (2.26%) and Fixed Assets Ratio (2.13%). Diversity within style was also found in positive spreads for 60-Month (3.80%) and 9-Month (3.22%) Active Return with 1-Month Lag, indicating favour toward long-term price reversal and short-term momentum, respectively. We also highlight several Macro indicators on the list of top and bottom (Table 11) performers. Names positively exposed to the US dollar (2.78%) and oil prices (2.06%) outperformed (Figure 5), while stocks with positive co-movement with US inflation (-2.50%), housing starts (-2.23%) and credit risk premium (-2.11%) underperformed. Lastly, we remark that 60-Month Beta (-2.14%) lagged as investors favoured high beta names.

Table 8: Developed Pacific exJapan top decile return spread factor performance, Jan 2017

Factor	Decile Spread (%)	Factor Group
14 Day Relative Strength Index	7.06	Price Momentum
6-Month Active Return with 1-Month Lag	6.26	Price Momentum
Leading 12 Month Book Yield	6.20	Deep Value
60-Month Alpha	5.92	Price Momentum
Normalized Earnings Yield	5.85	Deep Value
Time Weighted Book Yield	5.77	Deep Value
Time Weighted Cash Yield	5.62	Deep Value
50-200 Day Stock Price Ratio	5.61	Price Momentum
Short Concentration Ratio	5.48	Short Sentiment
Demand Supply Ratio	5.41	Short Sentiment
60-Month Active Return with 12-Month Lag	5.23	Price Momentum
Comprehensive Debt to Total Assets	5.14	Liquidity, Risk & Size
Long-term Debt-to-Cash Flow	5.09	Liquidity, Risk & Size
9-Month Active Return with 1-Month Lag	5.02	Price Momentum
Year-over-year Change in Current Ratio	4.97	Liquidity, Risk & Size

Figure 4: Developed Pacific exJapan Demand Supply Ratio decile return spreads, Jan 2016 – Jan 2017

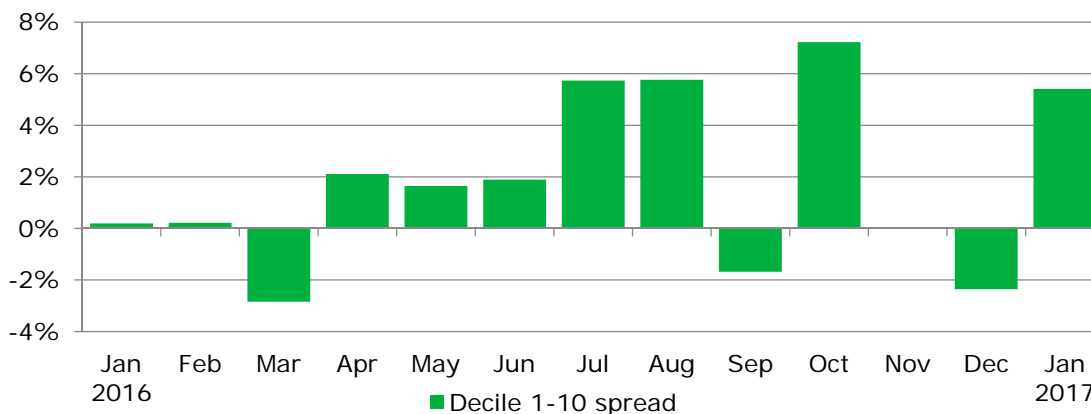


Table 9: Developed Pacific exJapan bottom decile return spread factor performance, Jan 2017

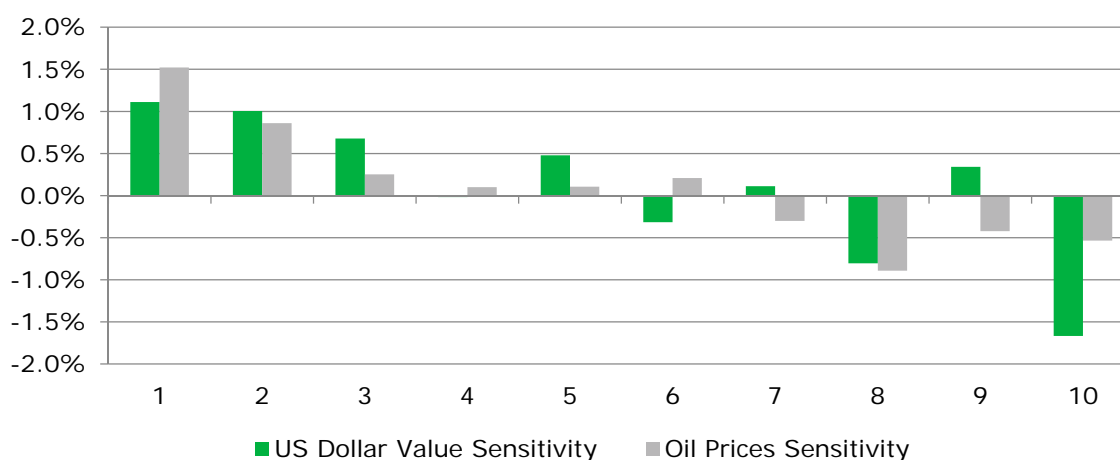
Factor	Decile Spread (%)	Factor Group
Working Capital Accruals	-5.74	Earnings Quality
Std Dev of FY1 EPS Estimates-to-Price	-5.31	Earnings Momentum
24-Month Active Return with 1-Month Lag	-4.60	Price Momentum
Change in Real Earnings Surprise	-4.39	Earnings Momentum
Std Dev of FY2 EPS Estimates-to-Price	-4.36	Earnings Momentum
Most Recent Earnings Surprise	-4.17	Earnings Momentum
Dividend Coverage Ratio	-4.10	Liquidity, Risk & Size
Real Earnings Surprise	-4.10	Earnings Momentum
Second Preceding 6-month Return	-3.82	Price Momentum
Rational Decay Alpha	-3.69	Price Momentum

Table 10: Japan Standard Cap top decile return spread factor performance, Jan 2017

Factor	Decile Spread (%)	Factor Group
60-Month Active Return with 12-Month Lag	3.80	Price Momentum
9-Month Active Return with 1-Month Lag	3.22	Price Momentum
39-Week Return with 4-week Lag	3.07	Price Momentum
US Dollar Value Sensitivity	2.78	Macro
Industry Relative TTM Dividend Yield	2.26	Relative Value
50-200 Day Stock Price Ratio	2.23	Price Momentum
14 Day Relative Strength Index	2.23	Price Momentum
2-Year Ahead EPS Growth Percentage Change	2.18	Earnings Momentum
Yield Curve Slope Sensitivity	2.18	Macro
Industry Relative TTM Oper Cash Flow-to-Price	2.14	Relative Value
Fixed Assets Turnover Ratio	2.13	Management Quality
2-Year Ahead EPS Growth	2.07	Earnings Momentum
Oil Prices Sensitivity	2.06	Macro
12-Month Active Return with 1-month Lag	2.03	Price Momentum
2-Year Projected EPS Growth	2.03	Earnings Momentum

Table 11: Japan Standard Cap bottom decile return spread factor performance, Jan 2017

Factor	Decile Spread (%)	Factor Group
Asset Composition	-2.96	Liquidity, Risk & Size
Sustainable Growth Rate	-2.53	Historical Growth
Inflation Sensitivity	-2.50	Macro
Price Above Last 260-day Lowest Trading Price	-2.46	Price Momentum
Cash Burn Rate	-2.24	Management Quality
Housing Starts Sensitivity	-2.23	Macro
Reinvestment Rate	-2.17	Historical Growth
Pretax Return on Net Operating Assets	-2.14	Management Quality
60-Month Beta	-2.14	Liquidity, Risk & Size
Credit Risk Premium Sensitivity	-2.11	Macro

Figure 5: Japan Standard Cap decile returns, Jan 2017


Emerging Markets

We round out our review with a look at top (Table 12) and bottom (Table 13) performing factors in the Emerging Markets universe in January. Valuation remained a key theme among the top performers, gauged by various metrics such as TTM Sales-to-Price (3.94%) along with long-term and short-term reversal measures, namely 60-Month Active Return with 12-Month Lag (3.68%) and 2-Month Active Return (3.54%), respectively. However, signs of more risk taking appeared in the list of bottom performers, gauged by measures such as Std Dev of FY2 EPS Estimates-to-Price (-5.32%), Stock Return Volatility (-4.96%) and 60-Month Beta (-3.78%). Indeed, a time series display of Stock Return Volatility quintile return spreads demonstrates the large drawdown in low versus high risk names last month (Figure 6).

Table 12: Emerging Markets top quintile return spread factor performance, Jan 2017

Factor	Decile Spread (%)	Factor Group
Altman Z Score	4.46	Liquidity, Risk & Size
TTM Sales-to-Price	3.94	Deep Value
Current Liabilities-to-Price	3.84	Liquidity, Risk & Size
60-Month Active Return with 12-Month Lag	3.68	Price Momentum
Time Weighted Cash Yield	3.66	Deep Value
2-Month Active Return	3.54	Price Momentum
Time Weighted Sales Yield	3.50	Deep Value
Time Weighted Book Yield	3.23	Deep Value
Long-term Debt-to-Equity	3.22	Liquidity, Risk & Size
Working Capital to Inventory	3.14	Management Quality
Net Cash to Equity	3.13	Liquidity, Risk & Size
Leading 12 Month Book Yield	3.12	Deep Value
Net Debt Ratio	3.04	Management Quality
Leading 12 Month Sales Yield	3.04	Deep Value

Dividends- to-Cash Flow 3.01 Management Quality

Table 13: Emerging Markets bottom quintile return spread factor performance, Jan 2017

Factor	Decile Spread (%)	Factor Group
Std Dev of FY2 EPS Estimates-to-Price	-5.32	Earnings Momentum
Stock Return Volatility	-4.96	Liquidity, Risk & Size
Std Dev of FY1 EPS Estimates-to-Price	-4.82	Earnings Momentum
Regression Error of 60-Month CAPM	-4.58	Liquidity, Risk & Size
24-Month Residual Return Variance	-4.40	Price Momentum
Credit Risk Premium Sensitivity	-4.18	Macro
Product of Beta and Sigma	-4.15	Liquidity, Risk & Size
Stability of 5-yr TTM Earnings per Share	-3.82	Historical Growth
60-Month Beta	-3.78	Liquidity, Risk & Size
20-Day Volume Volatility to Price Volatility	-3.66	Liquidity, Risk & Size

Figure 6: Emerging Markets Stock Return Volatility quintile return spreads, Jan 2016 – Jan 2017

