

Re-emerging political volatility

March 8, 2017

Near term political and economic uncertainty has not spooked investors grappling with the impact of rising US interest rates on the global economy. Traders now bet that a mid-March Fed rate hike has become a near certainty while investors wait for the next catalyst for stock prices to continue breaking records or for political uncertainty to re-emerge. In the meantime, low volatility markets press on as value continues to trump momentum across most regional markets (Table 1).

- US: Demand Supply Ratio outperformed among large caps, while small caps bucked the global trend favouring undervalued stocks
- Developed Europe: Value and growth factors rebounded last month, represented by Forward 12-M EPS-to-Enterprise Value and Reinvestment Rate, respectively
- Developed Pacific: Value (e.g., Book-to-Market) was highly rewarded at the expense of price momentum (e.g., Rational Decay Alpha)
- Emerging markets: High beta and value themes were well rewarded across emerging markets

	I able 1: Global factor quantile return spread performance snapshot, Feb 2017 Developed Japan US Large US Small Developed Pacific Standard Emerging						
Factor	Factor Group	US Large Cap	US Small Cap	Europed	Pacific exJapan	Standard Cap	Emerging Markets
Book-to-Market		-0.47	-3.19	-1.33	4.01	2.28	2.57
Forward 12-M EPS-to- Enterprise Value	-	0.98	-2.71	3.78	-1.48	-1.23	-0.25
TTM EBITDA-to-Enterprise Value	Deep Value	1.49	-2.72	3.43	3.15	0.15	1.39
TTM Free Cash Flow-to- Enterprise Value		0.46	-2.80	0.72	0.32	0.47	0.88
Industry Relative Leading 4-QTRs EPS to Price	-Relative Value	1.19	3.34	2.62	-0.65	-0.32	0.44
Industry Relative TTM Dividend Yield		0.53	-0.23	0.60	-0.07	1.33	0.20
Fixed Assets Turnover Ratio	Managamant	2.71	1.18	0.50	2.96	1.01	1.05
Inventory Turnover Ratio	Management	-1.42	-2.02	-0.81	-3.70	0.12	-0.27
Net Operating Asset Turnover	, , , , , , , , , , , , , , , , , , ,	0.36	-3.31	0.50	4.65	0.72	0.16
Change in Accruals to Assets	_	-3.71	-4.04	1.53	-0.68	0.77	1.12
Change in TTM COGS vs. Inventory Level	Earnings Quality	-0.91	-0.99	-0.98	1.16	0.57	-0.96
Change in TTM Sales vs. Accounts Receivable		-0.14	0.38	-1.25	-0.08	1.06	0.23
Working Capital Accruals		0.15	-2.27	1.49	-0.69	-1.85	-0.64
1-yr Growth in TTM Free Cash Flow	Historical Growth	2.32	1.53	1.13	-1.61	0.54	1.24
Reinvestment Rate	Glowin	4.06	0.81	3.25	0.05	-2.70	-1.69
Average Monthly Trading Volume-to-Market Cap	_	-3.18	-1.82	-1.44	-1.91	3.01	0.86
60-Month Beta		1.22	-1.18	3.08	-0.10	-1.83	-3.69
Asset Quality Index	Liquidity, Risk & Size	0.10	-4.45	1.63	-0.33	0.86	-0.83
Operating Leverage	_	-0.32	0.70	0.09	-1.75	-0.21	-0.18
Natural Logarithm of Market Capitalization		-0.99	-3.42	0.40	-1.25	3.10	0.48
2-Year Ahead EPS Growth	_	-2.75	-0.67	-2.56	1.12	2.40	1.81
3-M Revision in FY2 EPS Forecasts	Earnings Momentum	-3.22	-0.05	-0.02	-2.09	0.07	1.39
Real Earnings Surprise		-0.54	-1.33	0.35	-0.92	-0.14	-0.84
24-Month Value at Risk		2.61	0.68	0.87	-2.49	-2.32	-3.06
5-day Industry Relative Return	-Price	0.21	-0.05	0.32	1.91	0.03	-2.51
Industry-adjusted 12- month Relative Price Strength	Price Momentum	-0.57	-0.23	1.20	-0.61	-1.03	-1.30
Rational Decay Alpha		-1.28	-2.39	1.64	-3.23	-3.55	-0.96
Demand Supply Ratio	Short	3.67	-1.39	1.78	-0.70	0.63	-3.25
Implied Loan Rate	Sentiment	1.86	-0.36	0.60	0.76	-0.20	-1.36

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

United States

US Large Cap

The US manufacturing sector continued to expand at a robust pace in February, with the PMI posting at 54.2, though down slightly from January's 22-month peak of 55.0. Adding another leg to the Trump rally, stocks continued to set all-time records during their fourth straight monthly advance and the best monthly gain since March 2016.

However, energy shares significantly underperformed last month and were thus very impactful on factor performance. Factors with large exposure to the sector featured heavily on the list of top and bottom performers, including FY1 EPS Estimates Dispersion (6.17%) and Dividend Coverage Ratio (5.68%) on the leader board and Oil Prices Sensitivity (-6.34%) and Accounting Accruals (-6.28%) on the laggard board. Thus we report sector-neutral results to gain better insight into the key drivers across the broader market.

Demand Supply Ratio (2.98%) was near the top of the list of outperforming sector-neutral signals (Table 2). While factor performance was mostly neutral during the first three months of the Trump rally, February saw a spike in performance (Figure 1), suggesting that investors became more cautious toward names with a large amount of stock borrowed relative to lendable inventory. Stock Return Volatility (2.59%) also outperformed as investors favoured lower risk names. At the other end, Fama-French Momentum (-2.45%) was among the underperformers last month. This factor resided in negative territory during most of 2016 and continued this trend during the recent rally (Figure 2).

Factor	Decile Spread (%)	Factor Group
Dividends- to-Cash Flow	3.16	Management Quality
Demand Supply Ratio	2.98	Short Sentiment
51- Week Volume Price Trend with 4-week Lag	2.94	Price Momentum
3 Year Change in Gross Profit Margin	2.81	Management Quality
NOPAT Margin	2.70	Management Quality
FY1 EPS Estimates Dispersion	2.69	Earnings Momentum
Stock Return Volatility	2.59	Liquidity, Risk & Size
Skewness of 90-Day Stock Daily Excess Returns	2.58	Price Momentum
Capital Expenditure-to-Total Assets	2.56	Management Quality
Price Above Last 260-day Lowest Trading Price	2.47	Price Momentum
3-yr Growth in TTM Earnings per Share	2.45	Historical Growth
FY2 EPS Forecast Dispersion	2.41	Earnings Momentum
Financial Leverage	2.36	Liquidity, Risk & Size
1-Month Active Return	2.34	Price Momentum
Skewness of 90-Day Stock Daily Returns	2.31	Price Momentum

Table 2: US Large Cap top sector-neutral decile return spread factor performance, Feb 2017	

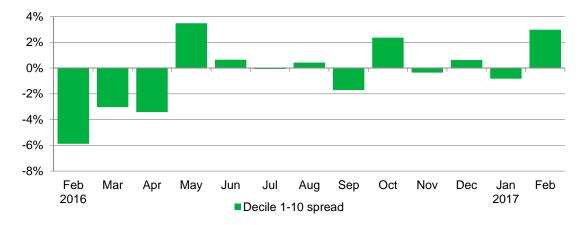
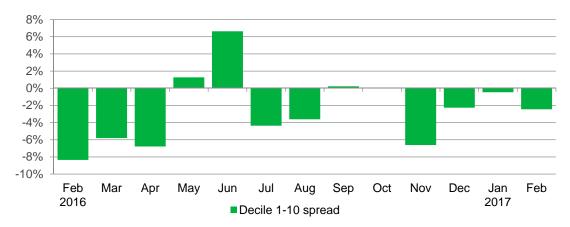


Figure 1: US Large Cap Demand Supply Ratio sector-neutral decile return spreads, Feb 2016 – Feb 2017

Table 3: US Large Cap bottom sector-neutral decile return spread factor performance, Feb2017

Factor	Decile Spread (%)	Factor Group
60-Month Active Return with 12-Month Lag	-3.08	Price Momentum
Prior Fiscal Quarter Forecast Error	-2.74	Earnings Momentum
Revision in Fiscal QTR 1 EPS Forecasts	-2.58	Earnings Momentum
6-Month Nominal Change in 18-Month Alpha	-2.55	Price Momentum
Fama-French Momentum	-2.45	Price Momentum
Natural Logarithm of Closing Price	-2.42	Liquidity, Risk & Size
Operating Cash Flow Ratio	-2.39	Liquidity, Risk & Size
Oil Prices Sensitivity	-2.37	Macro
Working Capital-to-Total Assets	-2.31	Management Quality
3-M Revision in FY2 EPS Forecasts: Dispersion Relati	ve -2.27	Earnings Momentum

Figure 2: US Large Cap Fama-French Momentum sector-neutral decile return spreads, Feb 2016 – Feb 2017



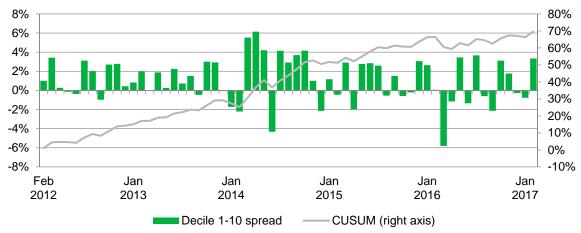
US Small Cap

Historical Growth and Management Quality indicators occupied the list of top performing factors in the US Small Cap universe in February (Table 4). 3-yr Change in Assets-adj TTM Cash Flow (5.94%) headed the Historical Growth group, posting its highest spread since December 2002. Industry Relative Leading 4-QTRs EPS to Price (3.34%) also outperformed, continuing its trend of positive performance (Figure 3) with an average spread of 1.14% over the past five years cumulating to 70% and with a hit rate of 66% (percent of months with positive spreads). Factors which trailed last month (Table 5) included other Deep Value and Management Quality measures such as Time Weighted EBITDA/EV (-8.63%) and Working Capital-to-Trailing 12-Months Sales (-6.70%), respectively, along with long-term price reversal metrics represented by 60-Month Active Return with 1-Month Lag (-6.08%).

Factor	Decile Spread (%)	Factor Group
Advertising Intensity	6.19	Management Quality
3-yr Change in Assets-adj TTM Cash Flow	5.94	Historical Growth
3-yr Compound Annual Sales Growth	4.65	Historical Growth
TTM Capital Expenditures-to-Price	4.48	Deep Value
Slope of 3-yr TTM Free Cash Flow Trend Line	4.24	Historical Growth
1-yr Change in Sales	4.09	Historical Growth
TTM Gross Profit Margin	4.05	Management Quality
Flow Ratio	4.04	Liquidity, Risk & Size
Yearly TTM Total Sales Growth Rate	3.98	Historical Growth
3 Year Change in Gross Profit Margin	3.90	Management Quality
Yearly Change In Gross Profit Margin	3.68	Management Quality
3-yr Change in Price-adj TTM Cash Flow	3.66	Historical Growth
Housing Starts Sensitivity	3.42	Macro
Industry Relative Leading 4-QTRs EPS to Price	3.34	Relative Value
20-Day Average of Bid-Ask Spread-to-Price	3.25	Liquidity, Risk & Size

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

Figure 3: US Small Cap Industry Relative Leading 4-QTRs EPS to Price decile return spreads, Feb 2012 – Feb 2017



Factor	Decile Spread (%)	Factor Group
Time Weighted EBITDA/ EV	-8.63	Deep Value
Latin America Sales Exposure	-7.65	Macro
Working Capital-to-Trailing 12-Month Sales	-6.70	Management Quality
SG&A Expenses-to-Sales	-6.16	Management Quality
Leading 12 Month EBITDA/ EV	-6.13	Deep Value
Quick Ratio	-6.09	Liquidity, Risk & Size
60-Month Active Return with 1-Month Lag	-6.08	Price Momentum
Leading 12 Month Sales Yield	-6.01	Deep Value
60-Month Active Return with 12-Month Lag	-6.01	Price Momentum
TTM Operating Cash Flow-to-Price	-5.95	Deep Value

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

Europe

Growth of eurozone manufacturing production gathered further momentum in February, with the PMI posting at 55.4, up from 55.2 in January and its highest level since April 2011. Seven of the eight nations followed saw improving operations conditions under the new leadership of the Netherlands, followed by Austria and Germany, with Greece the only nation in contraction territory. European equities lost some steam in late February after their year-to-date momentum brought them to a one-year high.

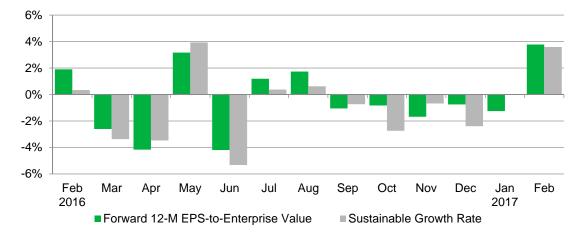
Price reversal metrics made their way onto the list of outperforming factors in the Developed Europe universe in February (Table 6), led by 3-Month Active Return (3.97%). Deep Value and Historical Growth were also prominent, with measures such as Forward 12-M EPS-to-Enterprise Value (3.78%) and Sustainable Growth Rate (3.59%) rebounding by 5.0 and 3.6 percentage points, respectively, after a 5-month draught (Figure 4). Outperformance by Distress Measure (3.64%) is also indicative of a negative view toward high default risk names.

Bottom performing factors in February (Table 7), on the other hand, represent an interesting juxtaposition of long-term price reversal and medium-term price momentum metrics, including factors such as 60-Month Active Return with 12-Month Lag (-4.35%) and 36-Month Active Return with 1-Month Lag (-3.49%), respectively. The implication is that investors preferred names that have remained out of favour for an extended period of time, corroborated by the aforementioned short-term price reversal metrics.

Factor	Decile Spread (%)	Factor Group
3-Month Active Return	3.97	Price Momentum
EBITDA-to-Debt	3.93	Liquidity, Risk & Size
2-Month Active Return	3.85	Price Momentum
Forward 12-M EPS-to-Enterprise Value	3.78	Deep Value
Distress Measure	3.64	Liquidity, Risk & Size
Sustainable Growth Rate	3.59	Historical Growth
TTM Core Earnings-to-Price	3.57	Deep Value
TTM EBITDA-to-Enterprise Value	3.43	Deep Value
TTM EPS before Extra Items-to-Price	3.42	Deep Value
TTM EPS after Extra Items-to-Price	3.30	Deep Value
NOPAT Margin	3.27	Management Quality
Reinvestment Rate	3.25	Historical Growth
TTM Growth Flow-to-Price	3.21	Deep Value
Yearly TTM Total Sales Growth Rate	3.20	Historical Growth
1-Month Active Return	3.13	Price Momentum

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

Figure 4: Developed Europe decile return spreads, Feb 2016 – Feb 2017



Factor	Decile Spread (%)	Factor Group
60-Month Active Return with 12-Month Lag	-4.35	Price Momentum
6-Month Nominal Change in 18-Month Alpha	-4.22	Price Momentum
Yield Curve Slope Sensitivity	-4.20	Macro
Net Asset Value to Price	-3.55	Deep Value
36-Month Active Return with 1-Month Lag	-3.49	Price Momentum
26-Week Relative Price Strength	-3.39	Price Momentum
Tobin q	-3.22	Liquidity, Risk & Size
6-Month Nominal Change in 12-Month Alpha	-3.16	Price Momentum
6-Month Nominal Change in 36-Month Alpha	-3.07	Price Momentum
60-Month Alpha	-2.78	Price Momentum

Asia-Pacific

Operating conditions remained in expansion territory at manufacturing companies in the two largest Asian economies. The Japan PMI confirmed a solid pace of improvement in manufacturing, posting at a 35-month high of 53.3 compared with 52.7 in January. Chinese manufacturing also picked up in February, captured by a PMI of 51.7, up slightly from 51.0 in January, and signalling an improvement in overall business conditions for the sixth month in a row. Asian stocks have been the clear winners for the year, outpacing US and European markets.

Value remained a well-rewarded theme in Asia-Pacific markets in February. In Developed Pacific exJapan (Table 8), top honours were awarded to Leading 12 Month Sales Yield (4.82%), with a string of eight consecutive months of positive performance (Figure 5). At the other extreme, Price Momentum factors were dominant once again on the list of underperformers (Table 9). 24-Month Active Return with 1-Month Lag (-4.77%) also made a repeat appearance as this factor extended its 2-year trend of underperformance (Figure 5).

In the Japan Standard Cap universe (Table 10), Industry Relative Book-to-Market (4.05%) headed the leader board with its eighth consecutive month of positive performance. Natural Logarithm of Market Capitalization (3.10%) was also a strong performer as the smallest 10% of names (D1) saw a bounce in performance (Figure 6). Also consistent with the other developed Asian markets, Japanese markets saw underperformance to Price Momentum signals (Table 11). Factors which lagged include Second Preceding 6-month Return (-3.60%) and Rational Decay Alpha (-3.55%). Several fundamentally driven measures also underperformed such as Forward Return on Equity (-3.31%) and Net Profit Margin (-3.12%).

Factor	Decile Spread (%)	Factor Group
Leading 12 Month Sales Yield	4.82	Deep Value
Cyclically Adjusted Earnings-to-Price	4.79	Deep Value
Leading 12 Month EBITDA/ EV	4.76	Deep Value
Industry-relative TTM Sales to Enterprise Value	4.69	Relative Value
Current Liabilities-to-Price	4.67	Liquidity, Risk & Size
Time Weighted Sales Yield	4.65	Deep Value
Net Operating Asset Turnover	4.65	Management Quality
Time Weighted EBITDA/ EV	4.32	Deep Value
36-Month Active Return with 1-Month Lag	4.20	Price Momentum
TTM Sales-to-Price	4.15	Deep Value
TTM Sales-to-Enterprise Value	4.09	Deep Value
5-yr Relative TTM Dividend Yield	4.06	Relative Value
Book-to-Market	4.01	Deep Value
Leading 12 Month Book Yield	3.98	Deep Value
Industry Relative Book-to-Market	3.87	Relative Value

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

Factor	Decile Spread (%)	Factor Group
Long-term Debt-to-Cash Flow	-5.00	Liquidity, Risk & Size
24-Month Active Return with 1-Month Lag	-4.77	Price Momentum
18-Month Active Return with 1-Month Lag	-4.19	Price Momentum
Average Trading Volume in Preceding 6-month	-3.92	Price Momentum
Slope of 52 Week Price Trend Line	-3.90	Price Momentum
Inventory Turnover Ratio	-3.70	Management Quality
Forward Return on Equity	-3.64	Management Quality
Slope of 66 Week Price Trend Line	-3.64	Price Momentum
Std Dev of FY2 EPS Estimates-to-Price	-3.53	Earnings Momentum
Fama-French Momentum	-3.43	Price Momentum

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

Figure 5: Developed Pacific decile return spreads, Feb 2015 – Feb 2017

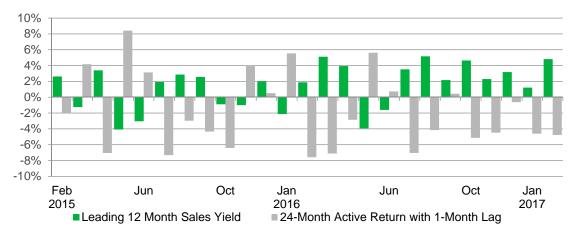


Table 10: Japan Standard Cap top decile return spread factor performance, Feb 2017

Factor	Decile Spread (%)	Factor Group
Industry Relative Book-to-Market	4.05	Relative Value
Natural Logarithm of Closing Price	3.73	Liquidity, Risk & Size
Natural Logarithm of Market Capitalization	3.10	Liquidity, Risk & Size
Average Monthly Trading Volume-to-Market Cap	3.01	Liquidity, Risk & Size
Industry-relative TTM Sales to Enterprise Value	2.95	Relative Value
TTM Sales-to-Price	2.89	Deep Value
TTM Sales-to-Enterprise Value	2.75	Deep Value
Graham Number Fair Value Premium	2.72	Deep Value
Industry Relative TTM Sales-to-Price	2.57	Relative Value
2-Year Ahead EPS Growth Percentage Change	2.54	Earnings Momentum
Time Weighted Sales Yield	2.52	Deep Value
Price-to-Book Return-on-Equity Combination	2.47	Deep Value
Yield Curve Slope Sensitivity	2.45	Macro
2-Year Ahead EPS Growth	2.40	Earnings Momentum
Cash-to-Sales	2.38	Management Quality

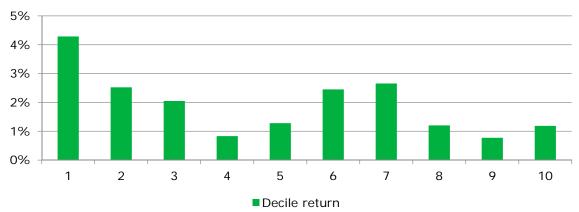


Figure 6: Japan Standard Cap Natural Logarithm of Market Capitalization decile returns, Feb 2017

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

Factor	Decile Spread (%)	Factor Group
Earnings Torpedo	-4.62	Earnings Momentum
Second Preceding 6-month Return	-3.60	Price Momentum
Rational Decay Alpha	-3.55	Price Momentum
Forward Return on Equity	-3.31	Management Quality
Sustainable Growth Rate	-3.30	Historical Growth
1-yr Change in Assets-adj TTM Cash Flow	-3.17	Historical Growth
Net Profit Margin	-3.12	Management Quality
Yearly Change in ROE - Arithmetic Difference	-3.11	Management Quality
3-yr Growth in TTM Cash Flow	-3.01	Historical Growth
1-Month Stock Return Interquartile Range	-3.00	Liquidity, Risk & Size

Emerging Markets

Lastly, we review top (Table 12) and bottom (Table 13) performing factors in the Emerging Markets universe in February. Valuation remained an overarching theme among the top performers, led by measures such as Cash-to-Price (3.34%), Industry Relative Book-to-Market (2.98%) and Time Weighted EBITDA/EV (2.54%). In January, investors took on a higher risk stance and this theme also carried over to February as confirmed by the factors that lagged for the month. In fact, the weakest performance was recorded by 60-Month Beta (-3.69%), marking a second straight month of large drawdowns (Figure 7). Names with positive exposure to EMEA Sales Exposure (-3.35%) were another group that struggled last month.

Factor	Decile Spread (%)	Factor Group
Cash-to-Price	3.34	Deep Value
Cash to Enterprise Value	3.05	Deep Value
Industry Relative Book-to-Market	2.98	Relative Value
Time Weighted Book Yield	2.70	Deep Value
Book-to-Market	2.57	Deep Value
Time Weighted EBITDA/ EV	2.54	Deep Value
Leading 12 Month Book Yield	2.38	Deep Value
Leading 12 Month EBITDA/ EV	2.28	Deep Value
Current Liabilities-to-Price	2.27	Liquidity, Risk & Size
Price-to-Book Return-on-Equity Combination	2.16	Deep Value
Net Fixed Assets to Long-term Debt	2.10	Liquidity, Risk & Size
Change in Net Operating Assets	2.06	Management Quality
TTM Sales-to-Price	2.03	Deep Value
Leading 12 Month Sales Yield	1.98	Deep Value
Time Weighted Sales Yield	1.85	Deep Value

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

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

Factor	Decile Spread (%)	Factor Group
60-Month Beta	-3.69	Liquidity, Risk & Size
Product of Beta and Sigma	-3.63	Liquidity, Risk & Size
Average Trading Volume in Preceding 6-month	-3.55	Price Momentum
EMEA Sales Exposure	-3.35	Macro
24-Month Value at Risk	-3.06	Price Momentum
Trading Turnover Ratio	-2.76	Liquidity, Risk & Size
1-Month Active Return	-2.52	Price Momentum
5-day Industry Relative Return	-2.51	Price Momentum
Basic Defensive Interval	-2.14	Liquidity, Risk & Size
24-Month Residual Return Variance	-2.08	Price Momentum

