

# Glimpses of risk taking amid tail-risk event

February 2022

## Research Signals

Most regional equity markets extended their losses into February as concerns over higher inflation and ensuing central bank interest rate hikes and monetary tightening were exacerbated by the escalation in the Russia-Ukraine conflict. However, high momentum and risk shares outperformed in several regional markets (Table 1), suggesting investors saw some glimmer of optimism, including that suggested by a mild upturn in the J.P.Morgan Global Manufacturing PMI led by Europe and the US, though a darkening geopolitical backdrop may pose significant risk to demand.

- US: High momentum and risk shares, as tracked by Rational Decay Alpha and 60-Month Beta, respectively, picked up steam in February, despite the market selloff
- Developed Europe: Firms with positive analyst outlook outperformed last month, as measured by 3-M Revision in FY2 EPS Forecasts and 2-Year Ahead EPS Growth
- Developed Pacific: High quality firms gauged by Inventory Turnover Ratio and Net Operating Asset Turnover outperformed in February
- Emerging markets: Investors favored low risk shares last month, as captured by 24-Month Value at Risk

## Contacts

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Table 1

## Global factor quantile return spread (%) performance snapshot, Feb 2022

Factor	Factor Group	US Large Cap	US Small Cap	Developed Europe	Developed Pacific ex Japan	Japan Standard Cap	Emerging Markets
Book-to-Market		0.82	-3.27	2.92	1.12	-1.04	2.53
Forward 12-M EPS-to-Enterprise Value	Deep Value	2.06	7.17	1.49	5.16	1.02	2.83
TTM EBITDA-to-Enterprise Value		3.08	5.28	1.80	2.40	0.43	2.37
TTM Free Cash Flow-to-Enterprise Value		1.76	2.11	0.04	0.81	-1.04	0.71
Industry Relative Leading 4-QTRs EPS to Price	Relative Value	-0.30	1.09	0.02	2.80	0.56	-0.64
Industry Relative TTM Dividend Yield		-1.82	-4.27	-2.21	-0.59	0.36	1.52
Fixed Assets Turnover Ratio	Management Quality	-1.42	2.79	-1.47	-1.36	4.08	-2.25
Inventory Turnover Ratio		1.38	-1.16	-1.40	1.83	2.07	0.97
Net Operating Asset Turnover		0.28	1.93	0.82	1.14	3.41	-1.68
Change in Accruals to Assets	Earnings Quality	-0.34	-0.01	-0.63	0.26	-1.03	-2.06
Change in TTM COGS vs. Inventory Level		-2.45	0.60	1.94	3.08	0.05	-0.24
Change in TTM Sales vs. Accounts Receivable		-0.90	-3.18	-0.43	-0.28	-2.11	-2.20
Working Capital Accruals		-1.07	1.59	0.87	-0.17	3.65	-0.08
1-yr Growth in TTM Free Cash Flow	Historical Growth	3.62	1.09	0.04	1.00	-1.83	-0.22
Reinvestment Rate		-4.07	-1.80	-2.68	-1.27	1.38	-3.41
Average Monthly Trading Volume-to-Market Cap	Liquidity, Risk & Size	3.30	5.34	0.89	-0.42	3.61	3.36
60-Month Beta		-5.97	-4.69	0.97	-0.84	-1.21	-0.32
Asset Quality Index		2.97	0.24	2.87	0.25	1.54	-0.30
Operating Leverage		0.49	-1.34	-0.33	-1.90	0.48	0.66
Natural Logarithm of Market Capitalization		3.59	-6.54	0.30	-3.27	3.15	0.45
2-Year Ahead EPS Growth	Earnings Momentum	2.05	4.67	2.03	-2.08	-0.73	-3.52
3-M Revision in FY2 EPS Forecasts		1.79	1.69	3.04	2.11	-1.79	1.45
Real Earnings Surprise		-1.85	-0.23	-0.79	0.00	2.31	0.97
24-Month Value at Risk	Price Momentum	-6.39	-3.32	-0.08	-0.17	-2.61	1.95
5-day Industry Relative Return		-1.44	-5.19	2.19	0.48	-0.29	1.12
Industry-adjusted 12-month Relative Price Strength		2.81	3.41	0.41	2.83	1.34	0.27
Rational Decay Alpha		5.98	8.76	1.20	3.64	1.37	1.56
Demand Supply Ratio	Short Sentiment	-1.66	-4.32	0.79	-0.91	-1.23	-3.39
Implied Loan Rate		0.01	-0.04	0.58	1.61	-0.83	2.37

Source: IHS Markit

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## United States

### US Large Cap

Operating conditions in the US manufacturing sector picked up in February, with the headline PMI figure rising to 57.3, up from 55.5 in January, amid signs of easing supply chain disruption and the sharpest expansion in new orders since October. Yet, equity markets struggled for a second consecutive month as stocks, which were already plagued by higher inflation and potential Fed funds rate increases, were further impacted by the Russian invasion of Ukraine.

Valuation measures gave some ground to momentum and growth measures among the top performing factors for US large caps in February (Table 2). The highest spreads were awarded to measures such as 18-Month Active Return with 1-Month Lag (6.93%) and Slope of 5-yr TTM EPS Trend Line (5.58%). Investors also strongly favored high risk shares, sending measures such as 24-Month Residual Return Variance (-8.48%) to the laggard board for the month (Table 3), with this factor recording its weakest spread since February of the prior year (Figure 1).

Table 2

#### US Large Cap top decile return spread factor performance, Feb 2022

Factor	Decile spread (%)	Factor group
18-Month Active Return with 1-Month Lag	6.93	Price Momentum
Rational Decay Alpha	5.98	Price Momentum
Slope of 5-yr TTM EPS Trend Line	5.58	Historical Growth
26-Week Relative Price Strength	5.54	Price Momentum
Yearly Change In Gross Profit Margin	5.52	Management Quality
1-Quarter Ahead EPS Growth	5.40	Earnings Momentum
4-Quarter Sales Acceleration	5.05	Historical Growth
Averaged Last 6-M EPS Revisions for FY2	4.53	Earnings Momentum
15/36 Week Stock Price Ratio	4.44	Price Momentum
1-yr Growth in TTM Oper Cash Flow	4.40	Historical Growth
Slope of 3-yr TTM EPS Trend Line	4.39	Historical Growth
Change in QTR SG&A Expenses vs. Sales	4.37	Earnings Quality
Fama-French Momentum	4.31	Price Momentum
Implied Volatility	4.26	Liquidity, Risk & Size
Quarterly Change in Gross Profit Margin	4.26	Management Quality

Source: IHS Markit

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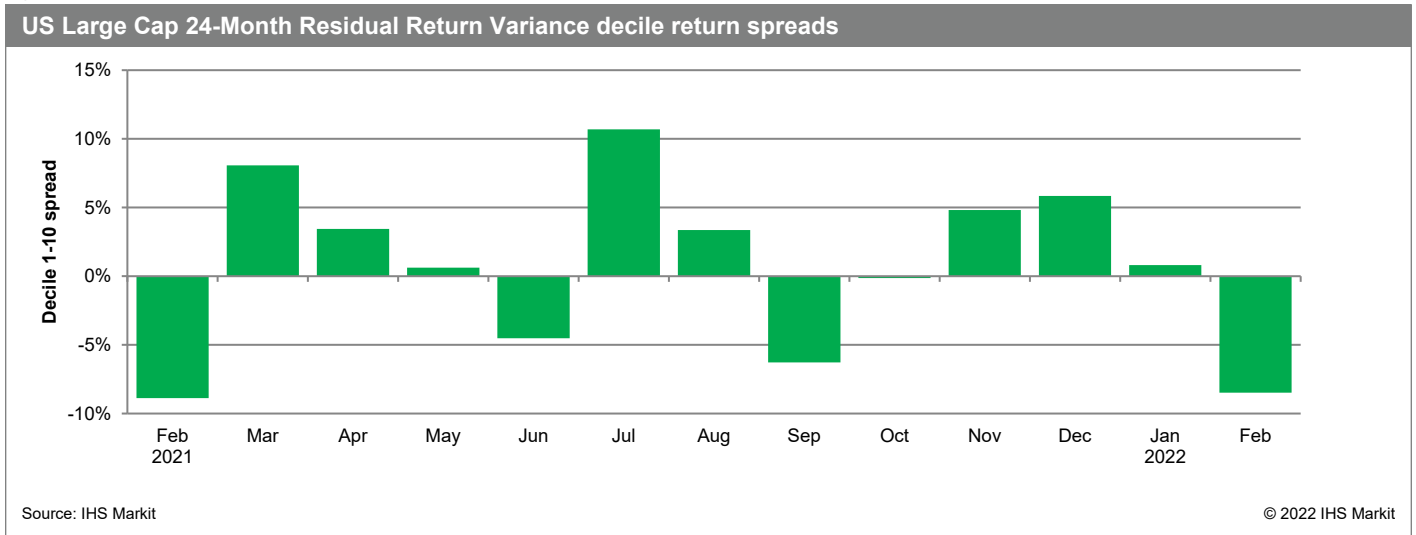
Table 3

US Large Cap bottom decile return spread factor performance, Feb 2022		
Factor	Decile spread (%)	Factor group
24-Month Residual Return Variance	-8.48	Price Momentum
Regression Error of 60-Month CAPM	-7.99	Liquidity, Risk & Size
Stock Return Volatility	-7.76	Liquidity, Risk & Size
Product of Beta and Sigma	-6.82	Liquidity, Risk & Size
51- Week Volume Price Trend with 4-week Lag	-6.63	Price Momentum
Cyclically Adjusted Earnings-to-Price	-6.48	Deep Value
24-Month Value at Risk	-6.39	Price Momentum
Cyclically and Inflation Adjusted Earnings-to-Price	-6.28	Deep Value
60-Month Beta	-5.97	Liquidity, Risk & Size
3-Year Trough Gross Margin	-5.57	Management Quality

Source: IHS Markit

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Figure 1



Source: IHS Markit

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## US Small Cap

While Deep Value measures remained among the most highly rewarded factors for small caps in February (Table 4), Price Momentum measures took on a more dominant role. 30-75 Week Stock Price Ratio (9.65%) was the top performing momentum measure and has been a positive indicator over the past nine months (Figure 2). At the opposite extreme, a broad selection of styles was represented among the weakest performing factors in February (Table 5), including 51-Week Volume Price Trend with 4-week Lag (-8.59%), R-Sqr of 3-yr TTM Sales Trend Line (-6.82%), Cash to Enterprise Value (-6.72%) Stock Return Volatility (-6.25%).

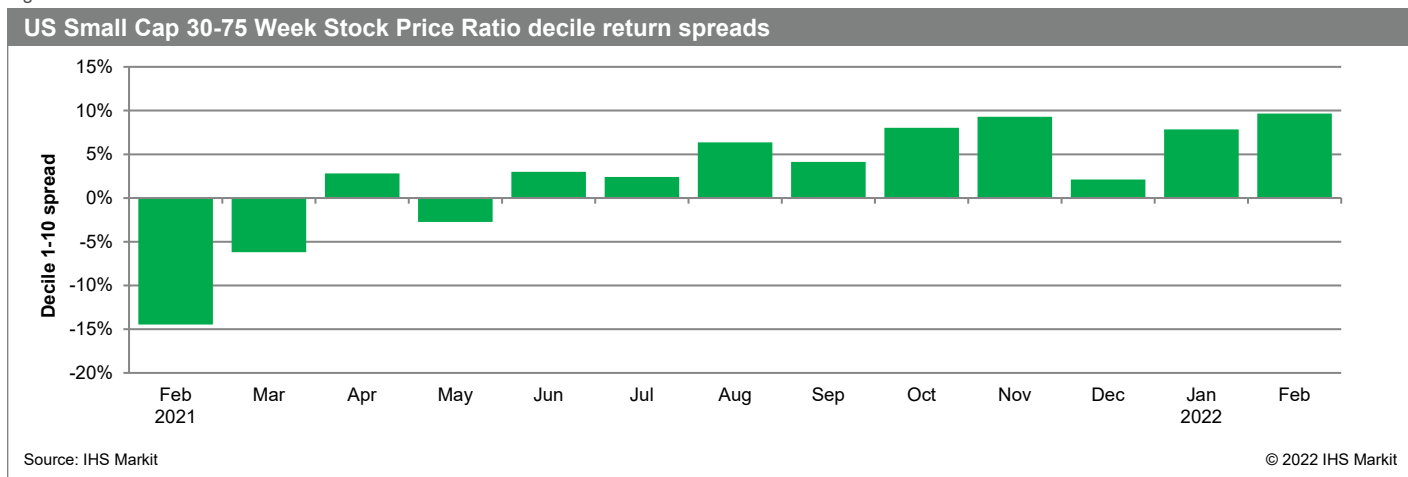
Table 4

US Small Cap top decile return spread factor performance, Feb 2022		
Factor	Decile spread (%)	Factor group
Net Current Assets-to-Price	10.40	Deep Value
30-75 Week Stock Price Ratio	9.65	Price Momentum
Rational Decay Alpha	8.76	Price Momentum
12-Month Active Return with 1-month Lag	8.73	Price Momentum
18-Month Active Return with 1-Month Lag	8.57	Price Momentum
Fama-French Momentum	8.36	Price Momentum
Second Preceding 6-month Return	8.18	Price Momentum
Net Cash to Equity	7.95	Liquidity, Risk & Size
39-Week Return with 4-week Lag	7.83	Price Momentum
15/36 Week Stock Price Ratio	7.82	Price Momentum
9-Month Active Return with 1-Month Lag	7.62	Price Momentum
Market Cap per Analyst	7.48	Liquidity, Risk & Size
Oil Prices Sensitivity	7.42	Macro
Forward 12-M EPS-to-Enterprise Value	7.17	Deep Value
Leading 12-Month Mean Earnings Yield	7.14	Deep Value

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, Feb 2022		
Factor	Decile spread (%)	Factor group
51- Week Volume Price Trend with 4-week Lag	-8.59	Price Momentum
R-Sqr of 3-yr TTM Sales Trend Line	-6.82	Historical Growth
Cash to Enterprise Value	-6.72	Deep Value
24-Month Residual Return Variance	-6.62	Price Momentum
Natural Logarithm of Market Capitalization	-6.54	Liquidity, Risk & Size
Stability of 3-yr TTM Cash Flow	-6.39	Historical Growth
Stock Return Volatility	-6.25	Liquidity, Risk & Size
Price Above Last 260-day Lowest Trading Price	-6.11	Price Momentum
Stock Illiquidity	-6.03	Liquidity, Risk & Size
Cash-to-Price	-5.71	Deep Value

Source: IHS Markit

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## Europe

While seeing slight easing, momentum in the eurozone manufacturing sector remained strong in February, with the PMI dipping modestly to 58.4, from 58.7 in January, supported by stronger demand and fewer delivery delays. The Netherlands saw the strongest improvement in manufacturing conditions, followed by equally sharp expansions in Germany and Austria. However, stocks notched their second month of declines on heightened Ukraine worries.

A wide selection of styles occupied the list of top performing factors in February (Table 6), including 6-Month Nominal Change in 18-Month Alpha (4.97%), Time Weighted EBITDA/EV (4.15%) and 1-yr Change in Total Assets (4.10%). We also highlight Time Weighted Earnings Revision (4.19%) which has outperformed for five consecutive months (Figure 3). On the other hand, short term price reversal metrics were among the weakest performers for the month (Table 7), with 1-Month Active Return (-5.46%) at the furthest extreme.

Table 6

### Developed Europe top decile return spread factor performance, Feb 2022

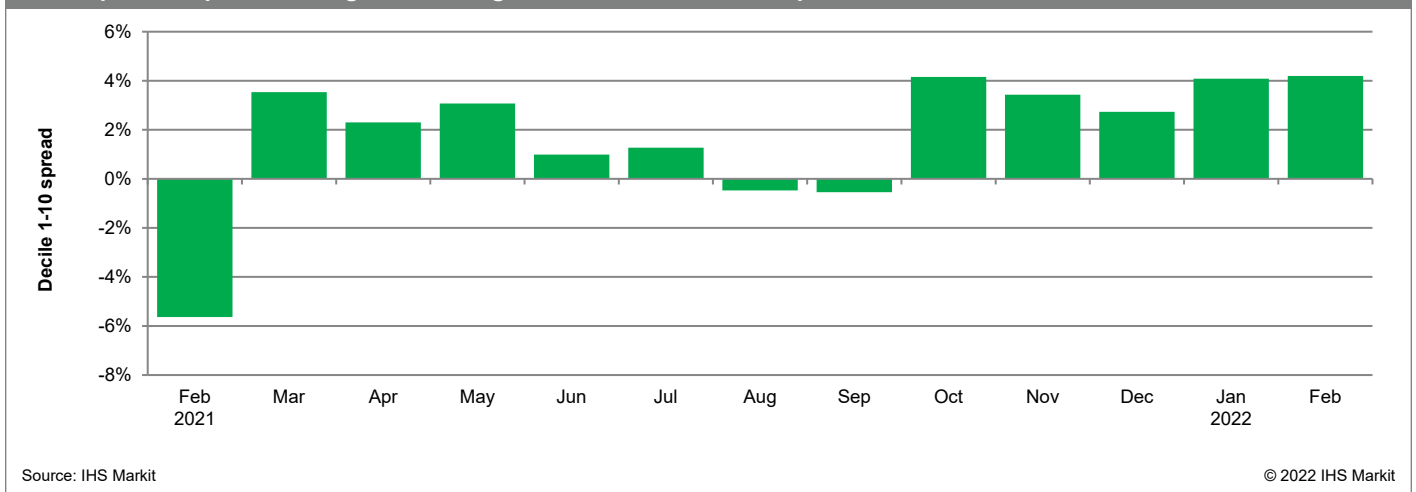
Factor	Decile spread (%)	Factor group
6-Month Nominal Change in 18-Month Alpha	4.97	Price Momentum
36-Month Active Return with 1-Month Lag	4.54	Price Momentum
Time Weighted Earnings Revision	4.19	Earnings Momentum
Time Weighted EBITDA/ EV	4.15	Deep Value
1-yr Change in Total Assets	4.10	Historical Growth
6-Month Nominal Change in 12-Month Alpha	4.08	Price Momentum
Oil Prices Sensitivity	4.05	Macro
Altman Z Score	4.05	Liquidity, Risk & Size
Industrial Production Sensitivity	4.01	Macro
Leading 12 Month EBITDA/ EV	3.99	Deep Value
3-yr Compound Annual ROIC Growth	3.68	Historical Growth
TTM Cash Flow from Investment to Total Assets	3.68	Management Quality
Change in Net Operating Assets	3.48	Management Quality
Time Weighted Book Yield	3.47	Deep Value
5-yr Sales Growth	3.44	Historical Growth

Source: IHS Markit

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Figure 3

### Developed Europe Time Weighted Earnings Revision decile return spreads



Source: IHS Markit

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Table 7

**Developed Europe bottom decile return spread factor performance, Feb 2022**

<b>Factor</b>	<b>Decile spread (%)</b>	<b>Factor group</b>
1-Month Active Return	-5.46	Price Momentum
3-yr Compound Annual Sales Growth	-4.57	Historical Growth
14 Day Relative Strength Index	-4.53	Price Momentum
2-Month Active Return	-4.39	Price Momentum
Yearly TTM Total Sales Growth Rate	-4.31	Historical Growth
5-yr Relative TTM Cash Flow-to-Price	-3.90	Relative Value
5-Year Dividend Growth Rate	-3.50	Historical Growth
24-Month Active Return with 1-Month Lag	-3.42	Price Momentum
3-yr Growth in TTM Cash Flow	-3.30	Historical Growth
Net Fixed Assets to Long-term Debt	-3.16	Liquidity, Risk & Size

Source: IHS Markit

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## Asia-Pacific

Manufacturing operating conditions in the two largest Asian economies of China and Japan moved in opposite directions in February. In China, the headline manufacturing PMI returned to expansion territory at 50.4 in February, up from 49.1 in January, on a renewed increase in total new domestic business, though the pandemic weighed on external demand. Japanese manufacturers, on the other hand, saw the rate of expansion ease from January's recent peak, with the February PMI slipping to 52.7 from 55.4 in January, on a renewed rise in COVID-19 cases and ongoing supply chain disruptions. Equity markets remain underwater for the year, with stocks in Japan suffering greater losses.

Deep Value measures remained key contributors in developed Pacific markets outside Japan in February (Table 8), led by Time Weighted Cash Yield (9.28%). However, Management Quality measures also moved up the performance spectrum, including Working Capital-to-Total Assets (7.67%) which has outperformed in all but three months over the past year (Figure 4). Factors which trailed for the month (Table 9) include 3-yr Compound Annual Sales Growth (-5.39%) and R Sqr of 5-yr TTM EPS Trend Line (-4.66%).

Management Quality was also an important theme in Japan in February (Table 10), though with less consistency in outperformance over the past year, as displayed by factors such as TTM Gross Profit to Assets (4.63%) which last saw strong performance in September of last year (Figure 5). Bottom performing factors for the month (Table 11) include several risk measures including Regression Error of 60-Month CAPM (-4.49%) and Stock Return Volatility (-4.47%), a sign of higher risk taking.

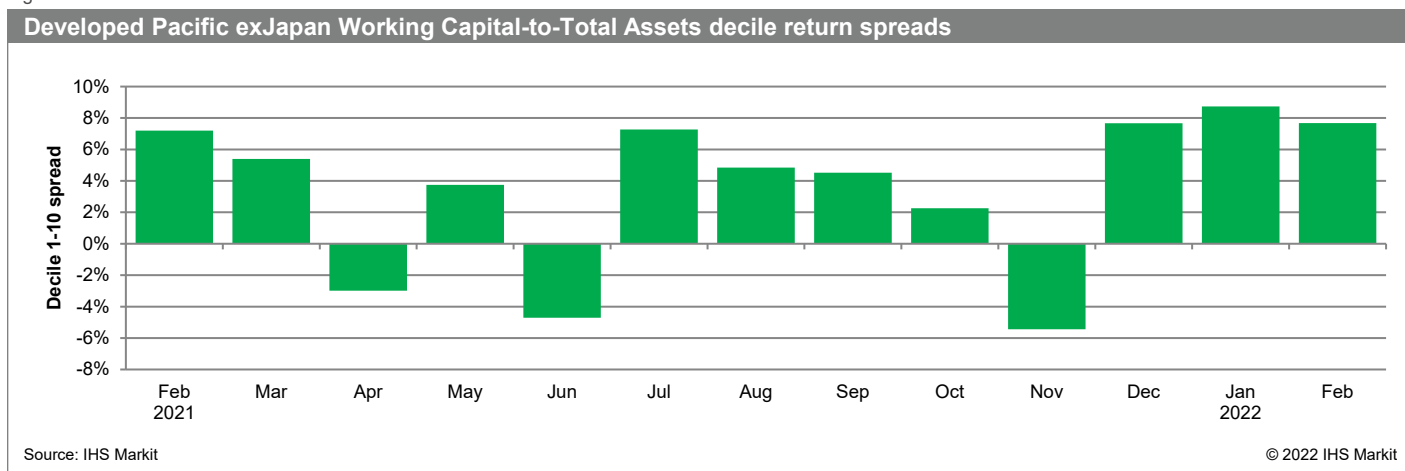
Table 8

Developed Pacific exJapan top decile return spread factor performance, Feb 2022		
Factor	Decile spread (%)	Factor group
Time Weighted Cash Yield	9.28	Deep Value
Working Capital-to-Total Assets	7.67	Management Quality
Time Weighted EBITDA/ EV	7.34	Deep Value
Natural Logarithm of Total Assets	6.93	Liquidity, Risk & Size
5-yr Sales Growth	6.92	Historical Growth
1-yr Change in Total Assets	6.63	Historical Growth
Working Capital-to-Trailing 12-Month Sales	6.49	Management Quality
39-Week Return with 4-week Lag	6.49	Price Momentum
Leading 12 Month Cash Yield	6.41	Deep Value
Leading 12 Month EBITDA/ EV	6.39	Deep Value
SG&A Expenses-to-Sales	6.36	Management Quality
Equity Turnover Ratio	6.12	Management Quality
Inflation Sensitivity	5.98	Macro
Current Ratio	5.85	Liquidity, Risk & Size
9-Month Active Return with 1-Month Lag	5.80	Price Momentum

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, Feb 2022		
Factor	Decile spread (%)	Factor group
3-yr Compound Annual Sales Growth	-5.39	Historical Growth
R Sqr of 5-yr TTM EPS Trend Line	-4.66	Historical Growth
Cyclically Adjusted Earnings-to-Price	-4.58	Deep Value
Yearly TTM Total Sales Growth Rate	-4.58	Historical Growth
TTM Gross Profit Margin	-4.29	Management Quality
Change in TTM Sales vs. EPS	-4.20	Earnings Quality
Stock Illiquidity	-3.96	Liquidity, Risk & Size
3-yr Chg in Assets-adj TTM Free Cash Flow	-3.82	Historical Growth
Unexpected Change in Accounts Payable	-3.82	Earnings Quality
Debt to Market Cap	-3.80	Liquidity, Risk & Size

Source: IHS Markit

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Table 10

Japan Standard Cap top decile return spread factor performance, Feb 2022		
Factor	Decile spread (%)	Factor group
US Dollar Value Sensitivity	4.87	Macro
TTM Gross Profit to Assets	4.63	Management Quality
TTM Sales-to-Enterprise Value	4.61	Deep Value
Assets Turnover Ratio	4.30	Management Quality
Fixed Assets Turnover Ratio	4.08	Management Quality
Retained Earnings-to-Total Assets	4.05	Management Quality
1-Month Active Return	3.94	Price Momentum
Working Capital Accruals	3.65	Earnings Quality
3-yr Compound Annual FCF Growth	3.63	Historical Growth
3-Month Active Return	3.62	Price Momentum
Average Monthly Trading Volume-to-Market Cap	3.61	Liquidity, Risk & Size
Net Operating Asset Turnover	3.41	Management Quality
Equity Turnover Ratio	3.28	Management Quality
2-Month Active Return	3.22	Price Momentum
Dividends-to-Cash Flow	3.15	Management Quality

Source: IHS Markit

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Figure 5

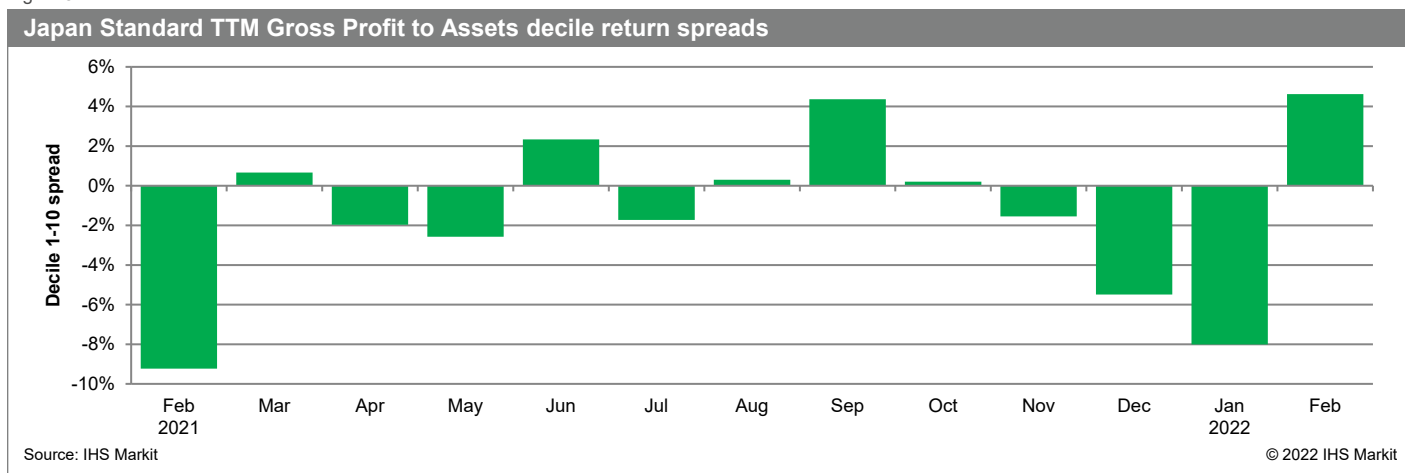


Table 11

Japan Standard Cap bottom decile return spread factor performance, Feb 2022		
Factor	Decile spread (%)	Factor group
SG&A Expenses-to-Sales	-4.76	Management Quality
Regression Error of 60-Month CAPM	-4.49	Liquidity, Risk & Size
Stock Return Volatility	-4.47	Liquidity, Risk & Size
Inventory Value Concentration	-4.38	Short Sentiment
24-Month Residual Return Variance	-4.31	Price Momentum
Operating Cash Flow Profit Margin	-4.13	Management Quality
3-yr Change in Assets-adj TTM Oper Cash Flow	-3.78	Historical Growth
Change in TTM Depreciation vs. CapEx	-3.69	Earnings Quality
Acquisition Multiple	-3.46	Deep Value
60-Day Residual Risk	-3.37	Liquidity, Risk & Size

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 February. Unlike several of our other coverage universes, low risk shares outperformed in emerging markets. 60-Day Residual Risk (4.09%) is one such measure that captured this theme and has been a strong signal in the first two months of this year (Figure 6). Other outperforming factors include Lending Supply (4.13%) and 1 Year Change in Gross Profit to Assets (3.09%), while Cash Earnings Return On Equity (-4.01%) and 2-Year Ahead EPS Growth (-3.52%) were among the weakest performers.

Table 12

### Emerging Markets top quintile return spread factor performance, Feb 2022

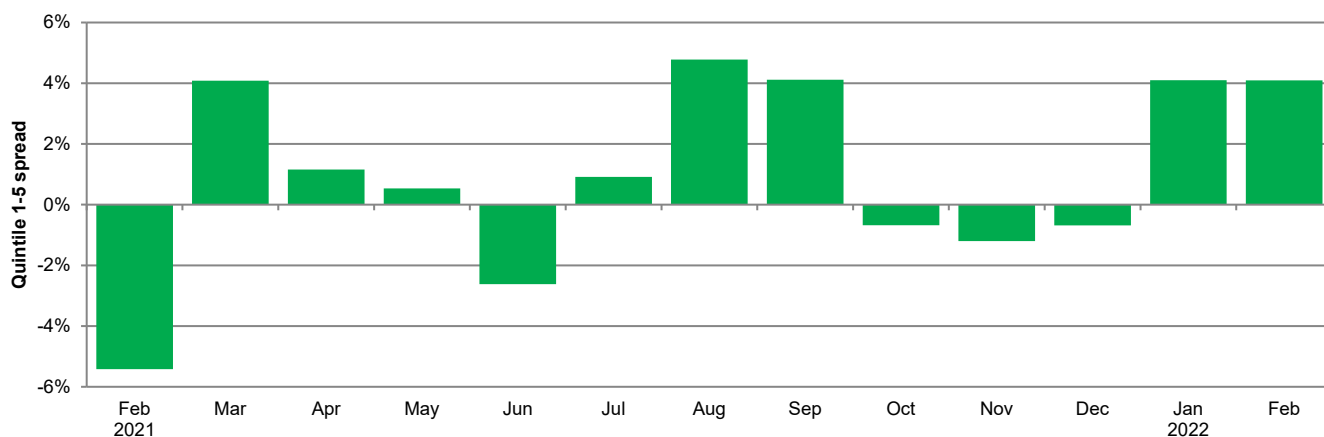
Factor	Decile spread (%)	Factor group
Lending Supply	4.13	Short Sentiment
60-Day Residual Risk	4.09	Liquidity, Risk & Size
1-Month Realized Stock Return Volatility	3.60	Liquidity, Risk & Size
Average Monthly Trading Volume-to-Market Cap	3.36	Liquidity, Risk & Size
Distress Measure	3.19	Liquidity, Risk & Size
1 Year Change in Gross Profit to Assets	3.09	Management Quality
Natural Logarithm of Closing Price (USD)	3.06	Liquidity, Risk & Size
Yield Curve Slope Sensitivity	2.97	Macro
1-Month Stock Return Interquartile Range	2.85	Liquidity, Risk & Size
Forward 12-M EPS-to-Enterprise Value	2.83	Deep Value
3-yr Change in Price-adj TTM Cash Flow	2.77	Historical Growth
Inventory Value Concentration	2.76	Short Sentiment
Industry Relative Book-to-Market	2.76	Relative Value
Credit Risk Premium Sensitivity	2.64	Macro
Yearly Change in ROE - Arithmetic Difference	2.58	Management Quality

Source: IHS Markit

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Figure 6

### Emerging Markets 60-Day Residual Risk quintile return spreads



Source: IHS Markit

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Table 13

**Emerging Markets bottom quintile return spread factor performance, Feb 2022**

<b>Factor</b>	<b>Decile spread (%)</b>	<b>Factor group</b>
Cash Earnings Return On Equity	-4.01	Management Quality
2-Year Ahead EPS Growth	-3.52	Earnings Momentum
Average Payable Period	-3.42	Management Quality
Reinvestment Rate	-3.41	Historical Growth
2-Year Ahead EPS Growth Percentage Change	-3.30	Earnings Momentum
Retained Earnings-to-Total Assets	-3.22	Management Quality
Sustainable Growth Rate	-3.14	Historical Growth
Industry-adjusted Doubtful Account Receivables	-2.88	Earnings Quality
TTM Gross Profit to Assets	-2.81	Management Quality
Dividend Coverage Ratio	-2.44	Liquidity, Risk & Size

Source: IHS Markit

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