

# High Frequency Monitor

## Equity market support

### Economic data, policy, and earnings support equities

Global equity markets [rallied](#) last week (+0.9%) on improving Manufacturing PMI data in all G8 countries and a strong US reporting season (79% of 230 companies have surprised positively). This outweighed the negatives from the continuing Middle East conflict, expectations the US Fed may delay the first cut, and weaker economic data in China. Cyclical led global [sector returns](#) including Consumer Discretionary (+2.5%), Semis (+2.2%), and Software (+1.6%). The best performing global [styles](#) last week were Growth, Momentum, and Quality. In aggregate, positive trends in economic data, policy, and earnings remain supportive of global equity market performance.

### Triple Momentum = Software, Tech Hardware, Insurance

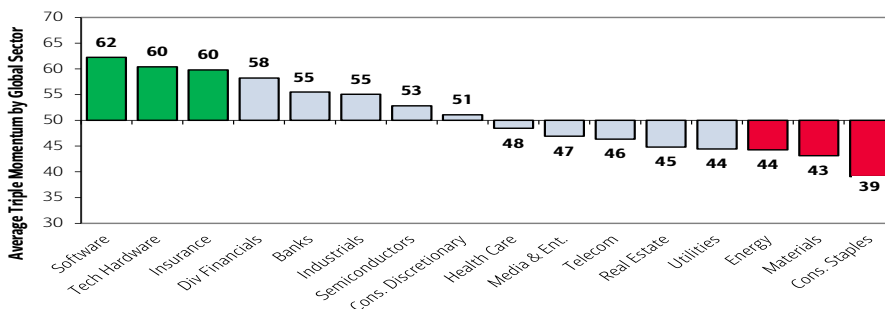
[Triple Momentum](#) (earnings, price, news) is now most positive for global Software, Tech Hardware, and Insurance, and most negative for Consumer Staples, Materials, and Energy. Back-testing shows the top-three global sectors ranked by Triple Momentum would have outperformed the bottom-three sectors by an average 7.8% per annum over the last 20 years (refer to "[Introducing Triple Momentum Sector Allocation](#)").

### Tougher for investors than headline figures suggest

Despite global equity markets rallying in 12 of the last 14 weeks by a total of 17.6%, narrow breadth has made stock selection difficult. While the market-cap weighted MSCI AC World Index rallied 1.9% last week, the equal-weighted stock performance was [-1.4%](#). In the last 12 months, only [26%](#) of stocks have outperformed the mcap-weighted index.

#### Chart 1: Global Sectors – Average Triple Momentum Rank

Triple Momentum is currently strongest for Software, Tech Hardware and Insurance



Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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05 February 2024

Quant Strategy  
Global

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Unless otherwise noted all links on the front page of this report refer to sections in this research report.

- [Market Performance](#)
- [Style Performance](#)
- [Earnings Revision Ratio](#)
- [Earnings Revision Ratio by Style](#)
- [NewsAlpha](#)
- [Word Cloud](#)
- [Tactical Indicators](#)
- [Volatility](#)
- [Rates](#)
- [Triple Momentum](#)

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Refer to important disclosures on page 42 to 44.

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# Contents

Notice to Readers:	3
Market Performance	4
Market Breadth	6
Style Performance	7
Earnings Revision Ratio	8
Quantessential Styles: Earnings Revision Ratio	10
NewsAlpha	11
Tactical Indicators	13
Commodities	15
Volatility	16
Rates	17
Valuation	20
Triple Momentum	21
Global Regions: Triple Momentum Charts	25
Global Sectors: Triple Momentum Charts	28
Countries: Triple Momentum Charts	36
Global Triple Momentum screens	38
Asia Pace ex-Japan Triple Momentum screens	40

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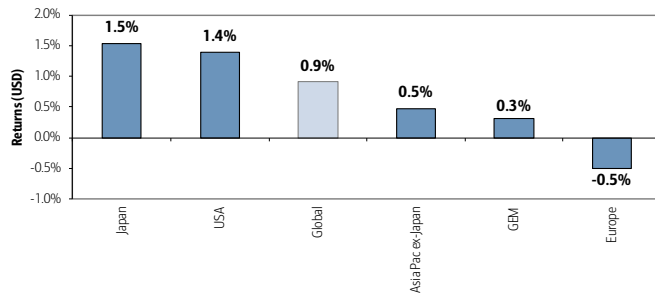
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# Market Performance

**Chart 2: Global Regions Performance: Last Week**

Last week: Japan performed the best

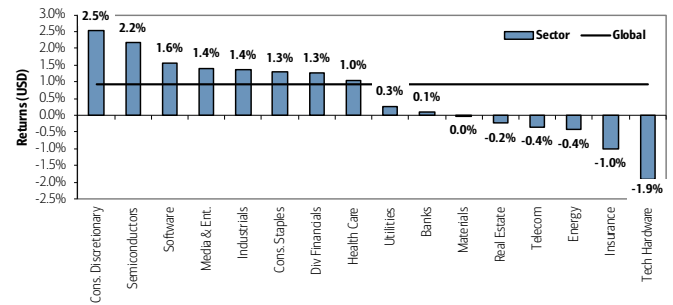


Source : BofA Global Quantitative Strategy, MSCI

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**Chart 3: Global Sectors Performance: Last Week**

Best performing sector last week was Cons. Discretionary

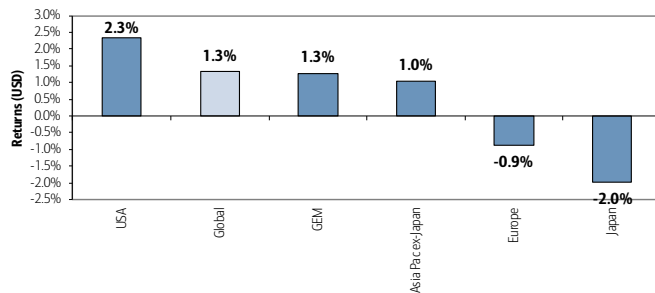


Source : BofA Global Quantitative Strategy, MSCI

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**Chart 4: Global Regions Performance: MTD**

MTD: USA performed the best

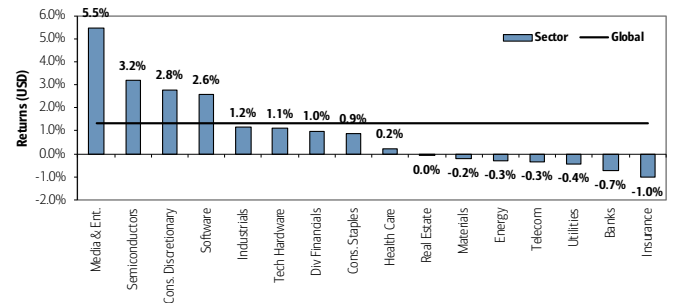


Source : BofA Global Quantitative Strategy, MSCI

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**Chart 5: Global Sectors Performance: MTD**

Best performing sector MTD is Media & Ent.

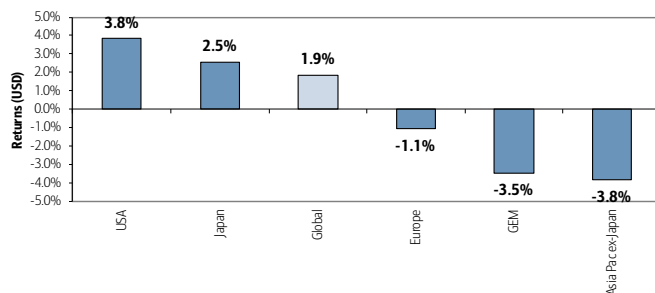


Source : BofA Global Quantitative Strategy, MSCI

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**Chart 6: Global Regions Performance: YTD**

YTD: The USA performed the best

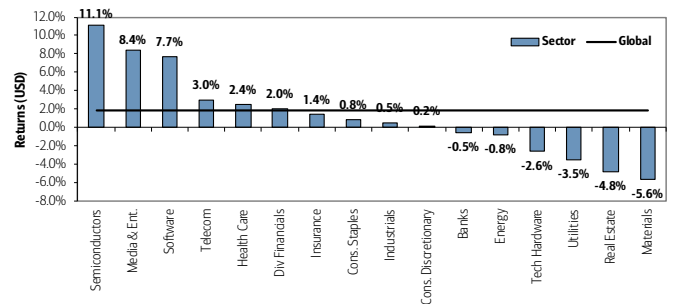


Source : BofA Global Quantitative Strategy, MSCI

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**Chart 7: Global Sectors Performance: YTD**

YTD: Semiconductors has performed the best



Source : BofA Global Quantitative Strategy, MSCI

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**Table 1: Global Region Country Sector Performance: Last week**

Best performing sector last week was Cons. Discretionary

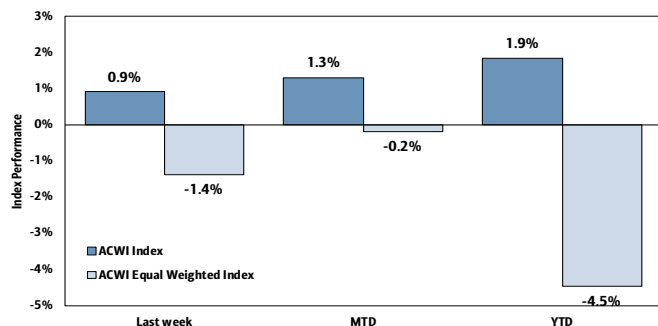
	Energy	Materials	Industrials	Cons. Discretionary	Cons. Staples	Health Care	Banks	Div Financials	Insurance	Software	Tech Hardware	Semiconductors	Telecom	Media & Ent.	Utilities	Real Estate	Country
Canada	-2.2%	-0.8%	3.1%	1.6%	0.4%	n/a	-1.2%	-2.8%	0.4%	1.6%	n/a	n/a	-1.3%	n/a	-0.2%	1.2%	-0.2%
USA	-1.1%	0.8%	1.9%	3.7%	2.1%	1.9%	-0.2%	1.8%	-0.7%	1.7%	-2.7%	3.1%	0.6%	1.6%	0.5%	-0.4%	1.4%
Belgium	n/a	-3.4%	n/a	-3.7%	-0.4%	-1.4%	-2.7%	-1.4%	-1.7%	n/a	n/a	n/a	n/a	n/a	-1.5%	-2.3%	-1.4%
Finland	-3.0%	-10.8%	0.8%	n/a	2.1%	-3.7%	-2.3%	n/a	0.5%	n/a	-6.8%	n/a	-6.4%	n/a	-1.6%	n/a	-3.4%
France	-0.3%	-0.7%	0.2%	0.2%	-0.9%	-3.6%	-8.3%	-2.1%	-1.8%	-6.5%	n/a	-3.2%	-2.5%	0.4%	-0.2%	-3.0%	-1.3%
Germany	n/a	-2.0%	-0.9%	1.7%	-2.2%	-5.6%	-0.8%	2.3%	-1.6%	1.5%	n/a	-2.7%	-2.2%	0.6%	-2.5%	0.5%	-0.8%
Italy	-1.6%	n/a	-0.5%	8.2%	-1.4%	-2.1%	-1.1%	-3.5%	-0.3%	n/a	n/a	n/a	-2.0%	n/a	-1.8%	n/a	1.0%
Netherlands	n/a	-1.3%	0.0%	-1.3%	0.7%	-8.7%	-7.2%	3.9%	-0.9%	n/a	n/a	1.8%	2.5%	-3.0%	n/a	n/a	0.2%
Norway	-2.9%	-3.6%	0.2%	n/a	-0.8%	n/a	-5.4%	n/a	-2.4%	n/a	n/a	n/a	-6.3%	-2.8%	n/a	n/a	-3.2%
Spain	0.0%	n/a	-3.4%	-0.4%	n/a	6.7%	6.8%	n/a	n/a	n/a	n/a	n/a	-3.5%	n/a	-0.5%	n/a	1.4%
Sweden	n/a	-2.1%	1.8%	-0.8%	-0.5%	-9.1%	-1.2%	0.0%	n/a	n/a	-2.4%	n/a	-3.8%	n/a	n/a	-1.1%	0.1%
Switzerland	n/a	-0.9%	0.3%	-0.2%	-0.1%	-3.6%	0.0%	0.2%	-0.8%	1.0%	-1.6%	n/a	-2.6%	n/a	2.8%	-1.1%	-1.4%
UK	0.4%	-1.2%	0.4%	-1.3%	0.4%	-0.5%	-0.8%	-2.9%	-3.6%	-1.4%	-1.8%	n/a	-3.9%	-0.4%	-1.2%	-1.2%	-0.6%
Australia	2.5%	-0.1%	-0.4%	0.3%	1.4%	1.1%	0.2%	0.9%	0.6%	-0.5%	n/a	n/a	0.9%	0.4%	1.4%	5.3%	0.7%
Hong Kong	n/a	n/a	-1.7%	3.5%	1.1%	n/a	-3.3%	-4.5%	-8.1%	n/a	n/a	n/a	-0.5%	n/a	2.2%	-1.9%	-3.3%
Japan	1.4%	2.8%	1.6%	1.6%	1.4%	-0.2%	2.8%	2.2%	0.3%	2.8%	1.0%	0.9%	1.0%	5.6%	3.2%	0.3%	1.5%
Singapore	n/a	n/a	1.7%	0.9%	-0.7%	n/a	0.2%	-1.4%	n/a	n/a	n/a	n/a	1.5%	6.2%	6.7%	0.5%	1.0%
China	-0.9%	-5.3%	-4.1%	-4.2%	-2.5%	-10.6%	-1.2%	-6.9%	-4.4%	-11.2%	-9.4%	-11.3%	3.3%	-1.6%	-2.7%	-4.5%	-3.9%
India	8.8%	1.9%	1.4%	3.1%	0.9%	2.7%	2.1%	0.3%	2.3%	2.4%	n/a	n/a	-0.6%	4.1%	7.3%	4.2%	2.9%
Korea	6.5%	8.9%	5.6%	18.0%	1.7%	4.8%	18.7%	12.5%	24.7%	3.7%	3.7%	0.3%	6.1%	2.3%	7.1%	n/a	6.6%
Taiwan	3.0%	0.6%	0.8%	1.2%	2.4%	-1.0%	0.2%	-0.6%	-0.1%	n/a	2.5%	n/a	0.8%	n/a	n/a	-0.5%	0.1%
Brazil	-0.4%	-5.4%	-3.2%	-1.5%	-3.2%	-3.0%	-1.4%	-1.6%	0.0%	1.5%	n/a	n/a	0.8%	n/a	-1.5%	n/a	-2.1%
Mexico	n/a	2.2%	0.6%	n/a	3.1%	n/a	5.6%	n/a	n/a	n/a	n/a	n/a	0.2%	n/a	n/a	n/a	2.7%
South Africa	-4.4%	-1.0%	-2.9%	0.3%	1.7%	n/a	-1.9%	-3.7%	-0.7%	n/a	n/a	n/a	-9.2%	n/a	n/a	n/a	-1.6%
Global Sector	-0.4%	0.0%	1.4%	2.5%	1.3%	1.0%	0.1%	1.3%	-1.0%	1.6%	-1.9%	2.2%	-0.4%	1.4%	0.3%	-0.2%	0.9%
Europe Sector	0.0%	-1.7%	0.1%	0.8%	-0.1%	-1.0%	-0.7%	-0.2%	-1.4%	-0.6%	-3.2%	1.0%	-2.8%	-0.8%	8.0%	-1.2%	-0.5%
APxJ Sector	4.6%	0.7%	0.8%	-0.3%	0.3%	-1.1%	1.6%	-0.8%	-2.5%	1.3%	1.8%	-1.2%	0.9%	-0.7%	2.4%	0.4%	0.5%
GEM Sector	3.1%	0.1%	0.7%	-0.4%	0.5%	-2.4%	1.2%	-1.0%	0.2%	1.5%	1.8%	-1.2%	-0.5%	-1.1%	1.3%	-1.3%	0.3%

Source : BofA Global Quantitative Strategy, MSCI

# Market Breadth

**Chart 8: ACWI Market Cap vs. Equal weighted index performance**

Last week, ACWI index returned +0.9%, while Equal Weighted index returned -1.4%

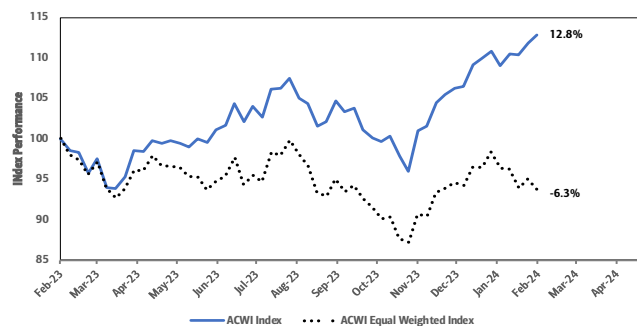


Source : BofA Global Quantitative Strategy, MSCI

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**Chart 9: ACWI MCap vs. Equal weighted index perf - last 12 months**

Last 12 months, ACWI index returned +12.7%, while Equal Weighted index returned -6.3%

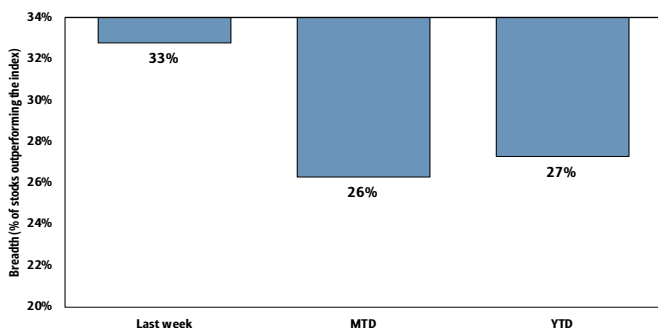


Source : BofA Global Quantitative Strategy, MSCI

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**Chart 10: Market Breadth - last week/MTD/YTD**

Last week, only 33% of the stocks outperformed the index

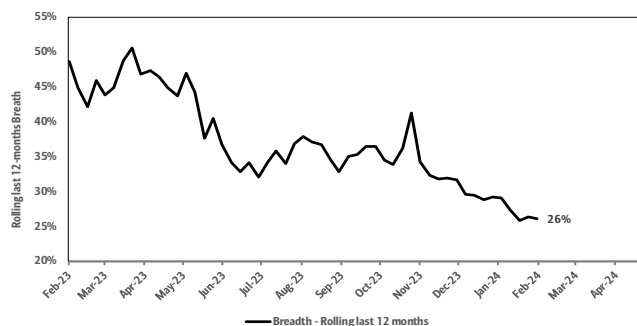


Source : BofA Global Quantitative Strategy, MSCI

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**Chart 11: Market Breadth - last 12 months**

Last 12 months, only 26% stocks outperformed the index



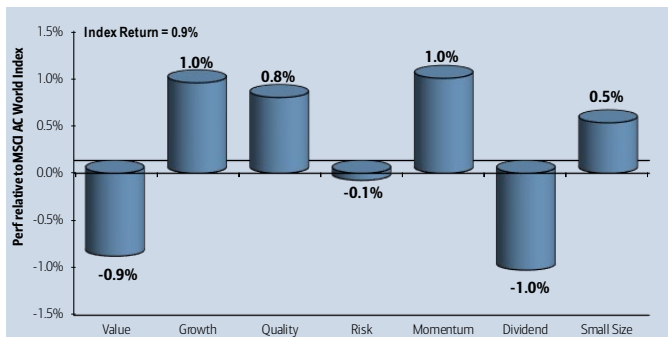
Source : BofA Global Quantitative Strategy, MSCI

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# Style Performance

**Chart 12: Global Quantessential Style Rel Performance: Last Week**

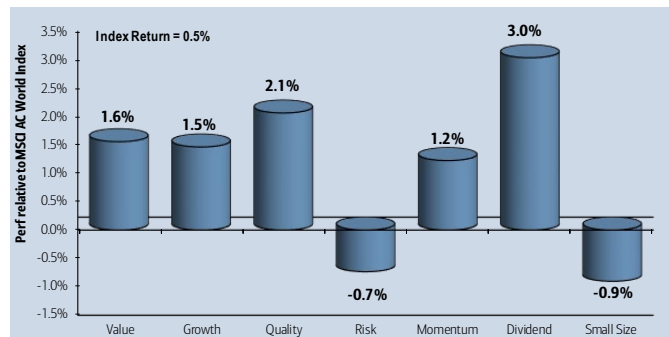
Momentum was the best performing style last week



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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**Chart 13: Asia Pac Quantessential Style Rel Performance: Last Week**

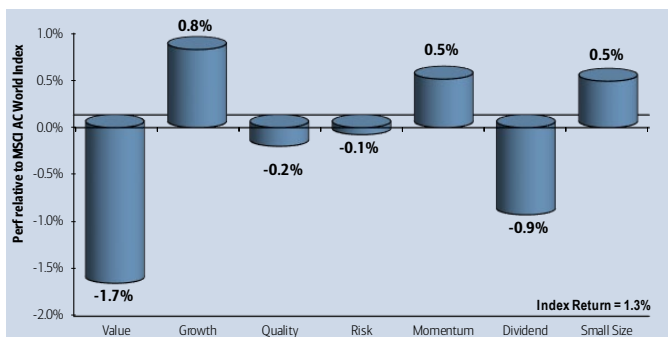
Last week: Dividend performed the best



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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**Chart 14: Global Quantessential Style Relative Performance: MTD**

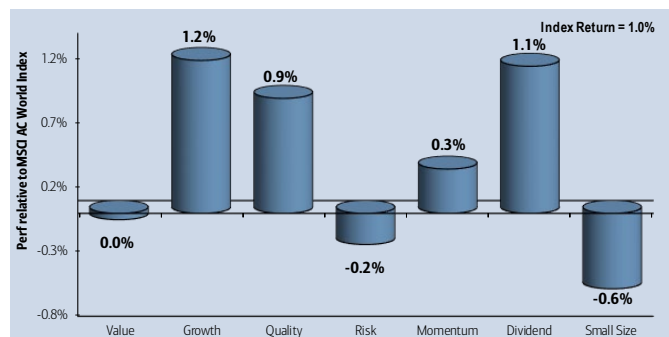
This month the best performing style is Growth



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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**Chart 15: Asia Pac Quantessential Style Relative Performance: MTD**

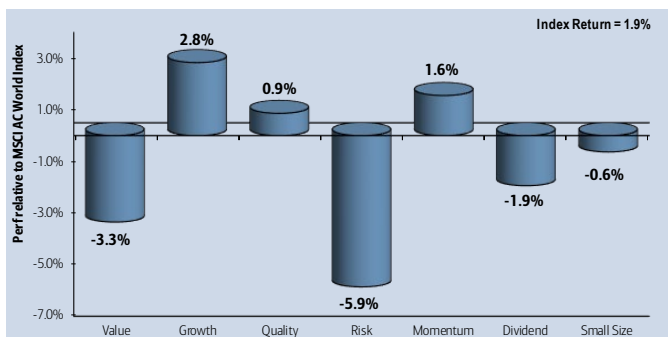
Growth is the best performing style this month



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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**Chart 16: Global Quantessential Style Relative Performance: YTD**

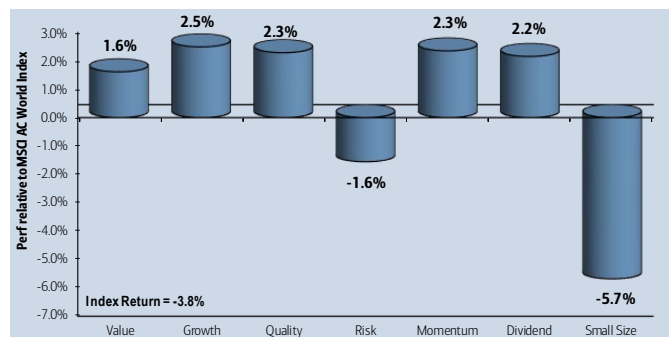
YTD: Growth has performed the best



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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**Chart 17: Asia Pac Quantessential Style Relative Performance: YTD**

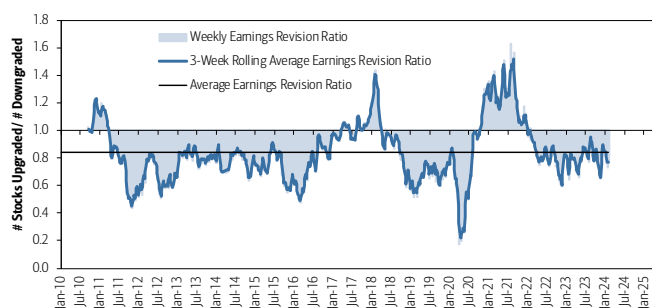
Growth is the best performing style this year



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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# Earnings Revision Ratio

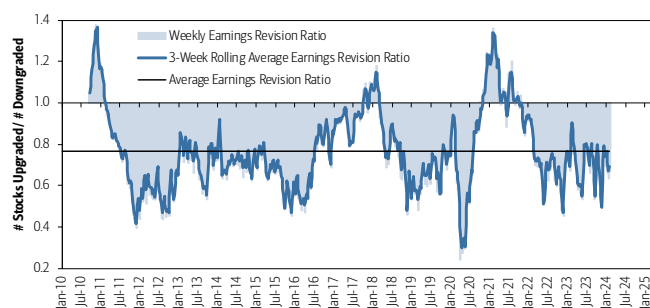
**Chart 18: Global Earnings Revision Ratio - Weekly**  
ERR fell in World last week and the trend moderated



Source : BofA Global Quantitative Strategy, MSCI, IBES

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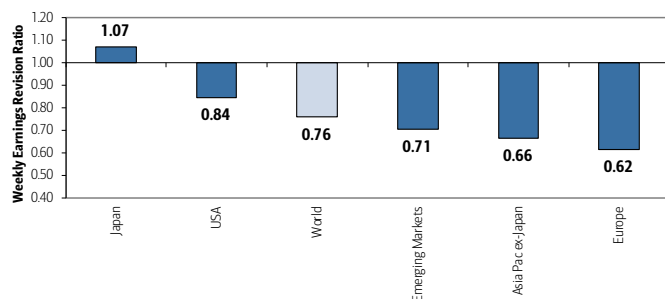
**Chart 19: Asia Pac Earnings Revision Ratio - Weekly**  
Earnings revisions fell in Asia Pac ex-Japan last week



Source : BofA Global Quantitative Strategy, MSCI, IBES

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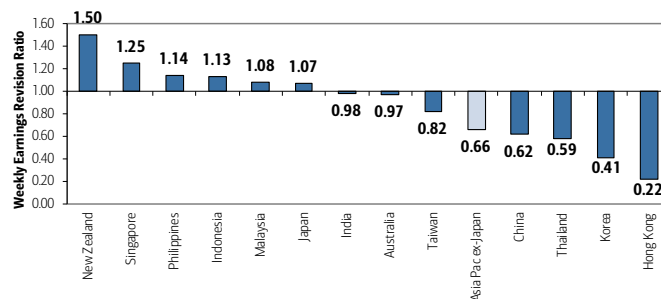
**Chart 20: Global Regions Earnings Revision Ratio - Weekly**  
Japan has the strongest ERR



Source : BofA Global Quantitative Strategy, MSCI, IBES

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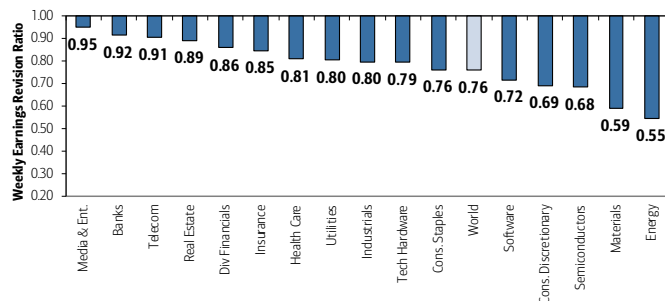
**Chart 21: Asia Pac Countries Earnings Revision Ratio - Weekly**  
Earnings trend in strongest in New Zealand and weakest in Hong Kong



Source : BofA Global Quantitative Strategy, MSCI, IBES

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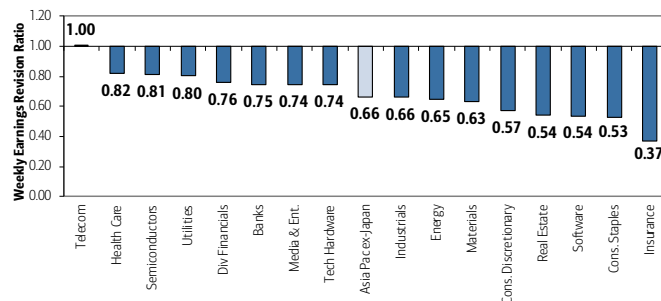
**Chart 22: Global Sectors Earnings Revision Ratio - Weekly**  
0 out of 16 sectors have a ratio above 1.0



Source : BofA Global Quantitative Strategy, MSCI, IBES

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**Chart 23: Asia Pac Sectors Earnings Revision Ratio - Weekly**  
There are more upgrades than downgrades in 1 out of 16 sectors



Source : BofA Global Quantitative Strategy, MSCI, IBES

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**Table 2: Global Region/Sector/Style - Earnings Revision Ratio**

ERR fell in World last week and the trend moderated

Regions/Sectors	Nov-23	Dec-23	Jan-24	Feb-24 - Wk1	Feb-24 - Wk2
World	0.66	0.82	0.73	0.81	0.76
USA	0.72	0.93	0.84	0.87	0.84
Europe	0.73	0.70	0.65	0.64	0.62
Japan	1.05	1.25	0.99	1.00	1.07
Asia Pac ex-Japan	0.49	0.69	0.63	0.78	0.66
Emerging Markets	0.55	0.74	0.67	0.79	0.71
Global - Banks	0.94	1.03	0.93	0.96	0.92
Global - Cons. Discretionary	0.73	0.82	0.81	0.68	0.69
Global - Cons. Staples	0.61	0.75	0.59	0.78	0.76
Global - Div Financials	0.57	1.11	0.97	0.93	0.86
Global - Energy	1.31	0.59	0.46	0.50	0.55
Global - Health Care	0.58	0.81	0.72	0.85	0.81
Global - Industrials	0.70	0.90	0.77	0.76	0.80
Global - Insurance	1.33	1.16	0.86	1.05	0.85
Global - Materials	0.34	0.66	0.55	0.73	0.59
Global - Media & Ent.	0.57	0.76	0.70	1.01	0.95
Global - Real Estate	0.68	0.73	0.77	0.99	0.89
Global - Semiconductors	0.41	0.79	0.57	0.85	0.68
Global - Software	0.81	0.93	0.90	0.89	0.72
Global - Tech Hardware	0.54	0.67	0.74	0.99	0.79
Global - Telecom	0.81	0.76	1.05	0.98	0.91
Global - Utilities	0.76	0.95	0.77	0.80	0.80
Global - Value	0.73	0.90	0.71	0.72	0.63
Global - Growth	1.13	1.19	1.05	0.99	1.20
Global - Quality	0.77	1.11	1.03	0.98	0.96
Global - Risk	0.70	0.74	0.66	0.71	0.73
Global - Momentum	1.42	1.56	1.47	1.16	1.46
Global - Dividend	0.64	0.69	0.58	0.59	0.52
Global - Small Size	0.56	0.67	0.61	0.64	0.53

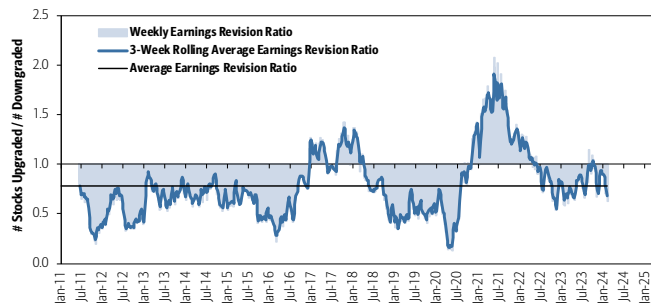
Source : BofA Global Quantitative Strategy, MSCI, IBES

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# Quantessential Styles: Earnings Revision Ratio

**Chart 24: Global Value Earnings Revision Ratio - Weekly**

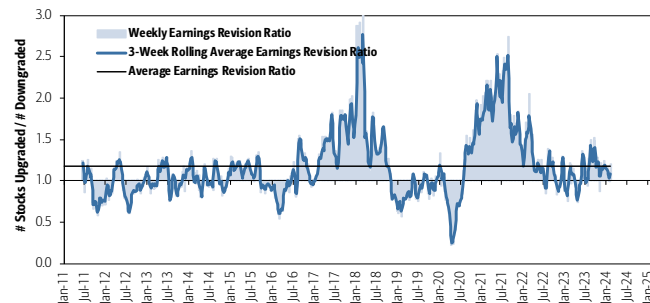
Earnings revisions fell in Value last week



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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**Chart 25: Global Growth Earnings Revision Ratio - Weekly**

Earnings trend improved in Growth in the last three weeks



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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**Chart 26: Global Quality Earnings Revision Ratio - Weekly**

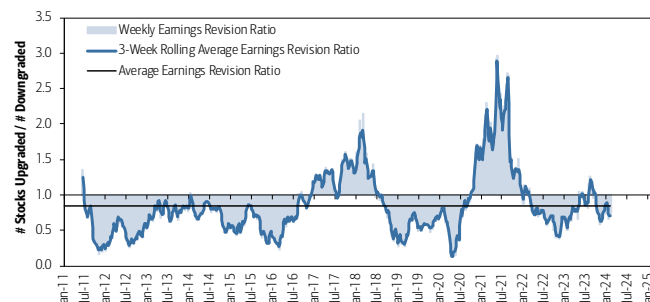
Earnings revision moderated in Quality last week but remains above average



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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**Chart 27: Global Risk Earnings Revision Ratio - Weekly**

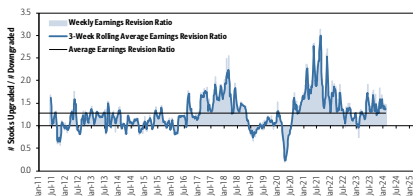
The trend is weak but earnings revisions improved in Risk last week



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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**Chart 28: Global Momentum Earnings Revision Ratio - Weekly**

Earnings revisions improved for Momentum last week and remains above long-term average



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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**Chart 29: Global Dividend Earnings Revision Ratio - Weekly**

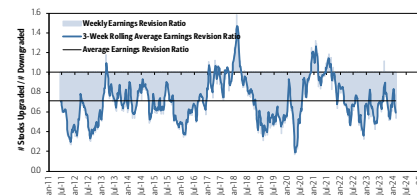
ERR fell in Dividend last week and the trend moderated



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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**Chart 30: Global Small Size Earnings Revision Ratio - Weekly**

Earnings revisions for Small Size fell last week and remains below long term trend

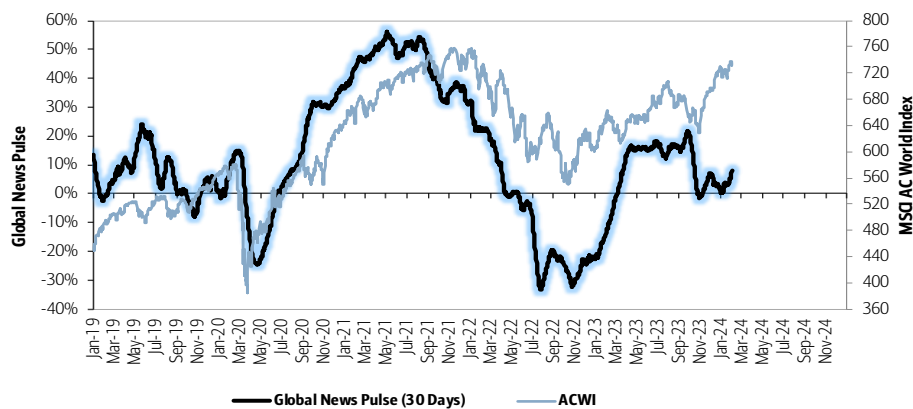


Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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# NewsAlpha

**Chart 31: Global News Pulse (last 30 days)**

Globally news has improved at stock level in the last two weeks

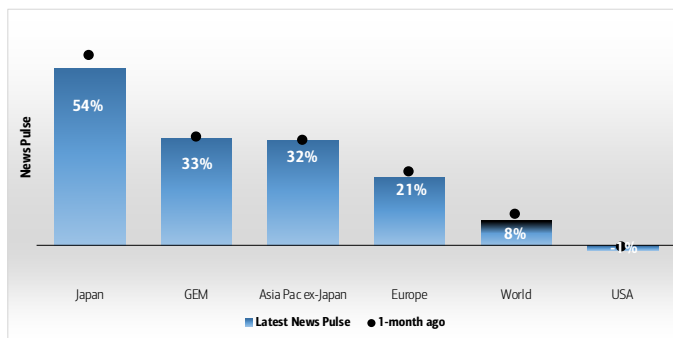


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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**Chart 32: Global Regions: Latest News Pulse**

Japan has the strongest News Pulse, while The USA has the lowest Pulse

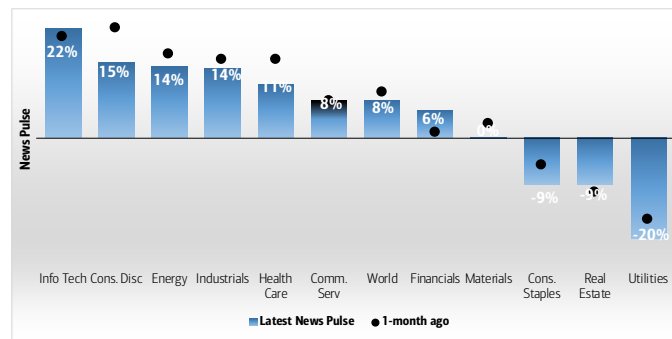


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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**Chart 33: Global Sectors: Latest News Pulse**

Info Tech has the strongest News Pulse, while Utilities has the lowest Pulse

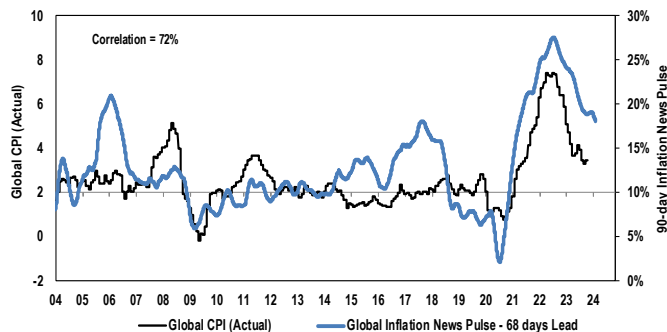


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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**Chart 34: Inflation News Pulse vs. Global CPI**

Inflation News Pulse leads Global CPI by 68 days with correlation of 72%

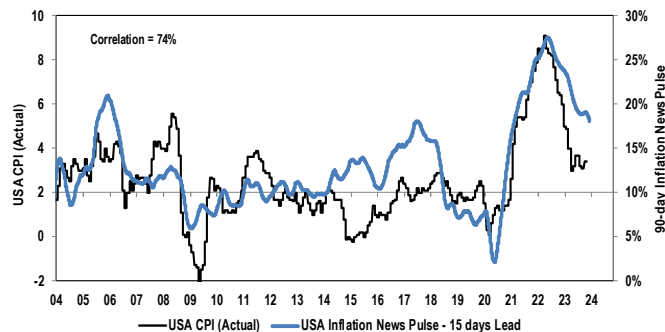


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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**Chart 35: Inflation News Pulse vs. USA CPI**

Inflation News Pulse leads USA CPI by 15 days with correlation of 74%

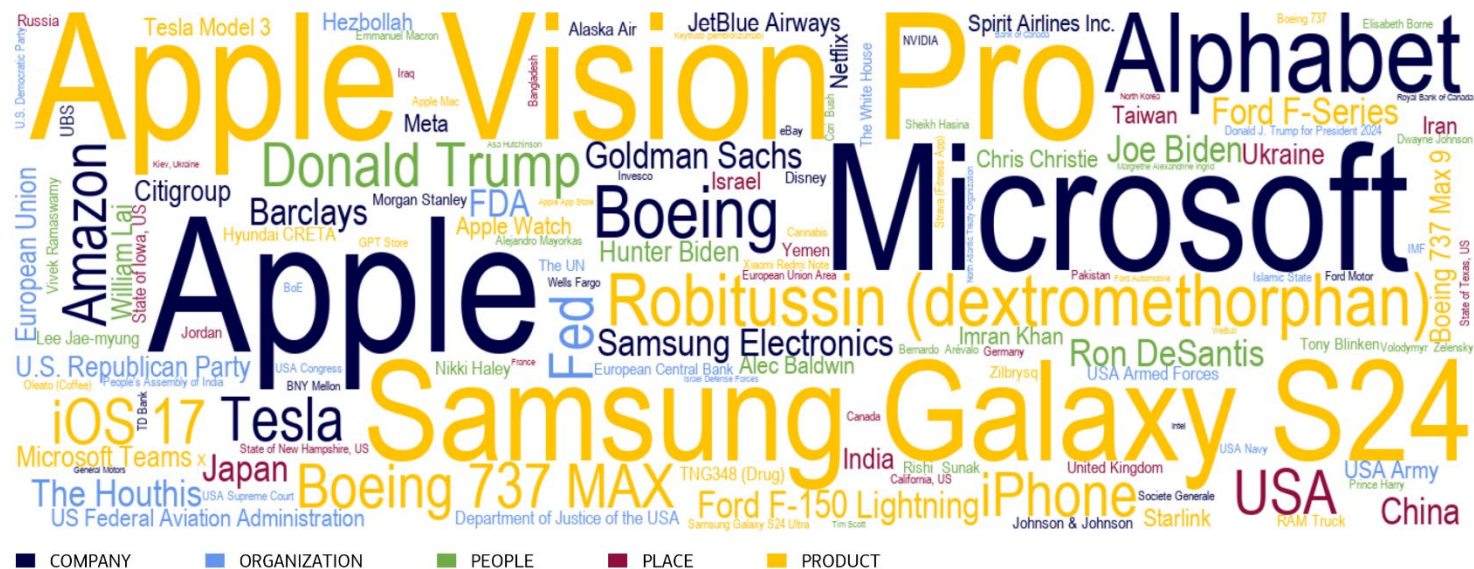


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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### Chart 36: Top News Mentions (last 30 days)

Top 100 entities mentioned in news (companies, organization, people, place, and products)

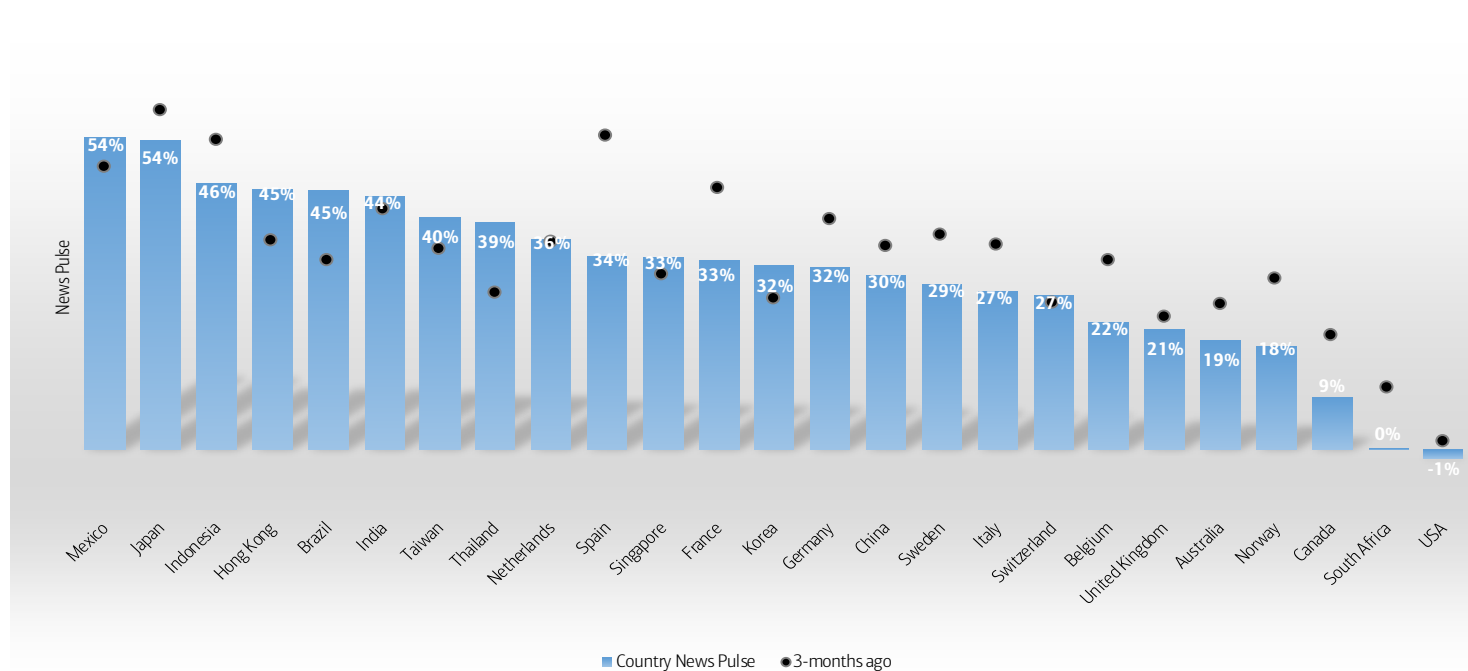


**Source :** BofA Global Quantitative Strategy, RavenPack

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### Chart 37: Current News Pulse by Global Countries

News aggregate is highest in Mexico and Japan



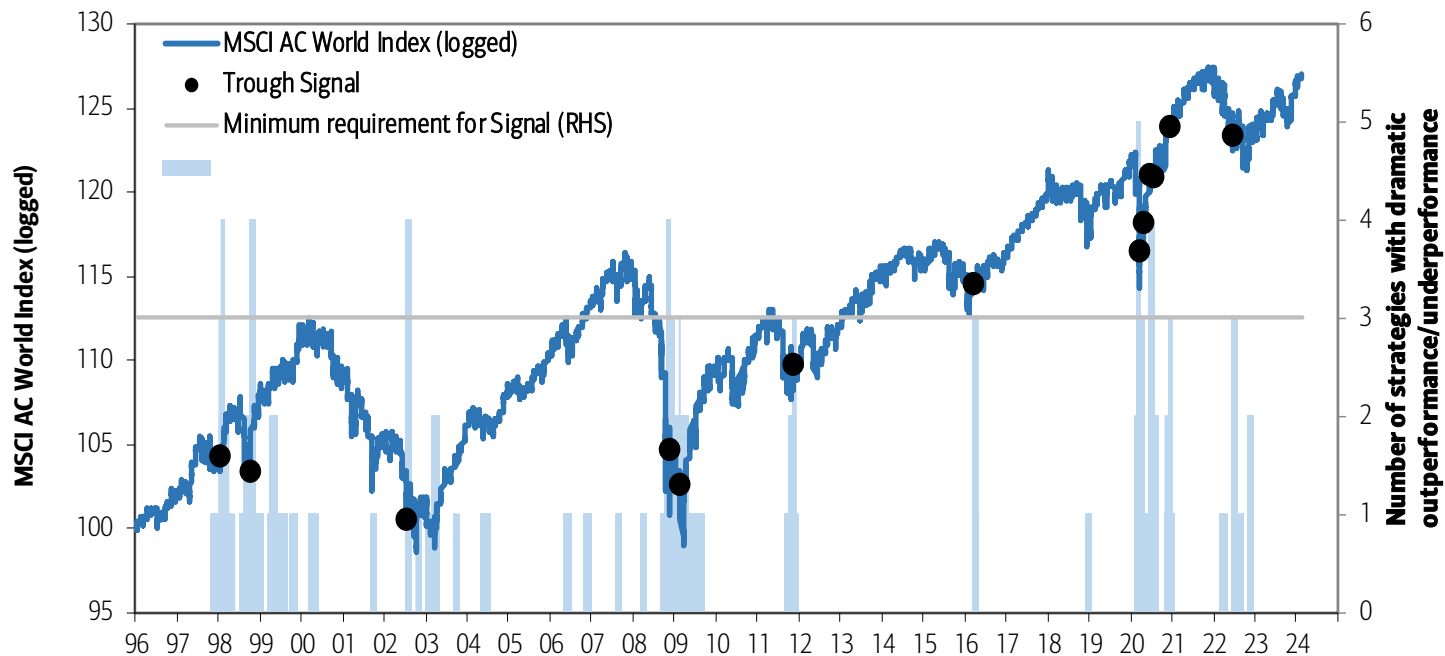
**Source :** BofA Global Quantitative Strategy, MSCI, ExShare, RavenPack

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# Tactical Indicators

**Chart 38: Trough signals by the Market Trough Monitor vs. MSCI ACWI**

The most recent trough signal from the Market Trough Monitor would have occurred on 24-Jun-22

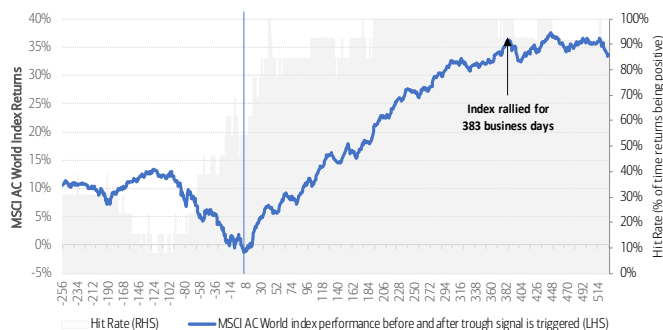


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack, IBES, Worldscope, Exshare, S&P, Bloomberg

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**Chart 39: MSCI ACWI performance before & after trough signals from Market Trough Monitor**

ACWI averaged 28% in 12 months after the Market Trough Monitor triggered a trough signal



Source : BofA Global Quantitative Strategy, MSCI, Ravenpack, IBES, Worldscope, Exshare, S&P, Bloomberg

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**Table 3: Trough signals from the Market Trough Monitor and subsequent MSCI ACWI performance**

After MTS triggered, MSCI AC World Index averaged 29% returns in the subsequent 12 months

Signal Dates	Subs 1-month MSCI AC World Index returns	Subs 3-months MSCI AC World Index returns	Subs 6-months MSCI AC World Index returns	Subs 1-year MSCI AC World Index returns
24-Jun-22	-0.1%	-8.5%	-1.2%	10.3%
10-Dec-20	4.3%	6.9%	14.3%	17.6%
10-Jul-20	4.1%	9.2%	21.8%	33.6%
8-Jun-20	-0.6%	3.5%	16.0%	32.3%
15-Apr-20	2.3%	16.9%	24.8%	49.1%
12-Mar-20	8.8%	20.6%	33.6%	58.3%
7-Mar-16	1.6%	5.4%	9.5%	15.0%
9-Nov-11	-0.1%	8.7%	4.4%	6.7%
13-Feb-09	-6.5%	13.8%	27.3%	39.5%
10-Nov-08	-4.3%	-9.4%	0.1%	27.1%
22-Jul-02	9.7%	1.1%	1.0%	15.0%
8-Oct-98	15.8%	30.3%	36.0%	35.3%
22-Jan-98	7.5%	14.4%	15.2%	20.5%
<b>Average</b>	<b>3.3%</b>	<b>8.7%</b>	<b>15.6%</b>	<b>27.7%</b>
<b>Hit Rate (Pos Returns)</b>	<b>62%</b>	<b>85%</b>	<b>92%</b>	<b>100%</b>

Source : BofA Global Quantitative Strategy, MSCI, Ravenpack, IBES, Worldscope, Exshare, S&P, Bloomberg

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**Chart 40: Copper (Spot), weekly last 2 years**

Copper price fell (-0.9%)



Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 41: AUD-USD cross rate, weekly last 2 years**

AUD depreciated (-1.0%)

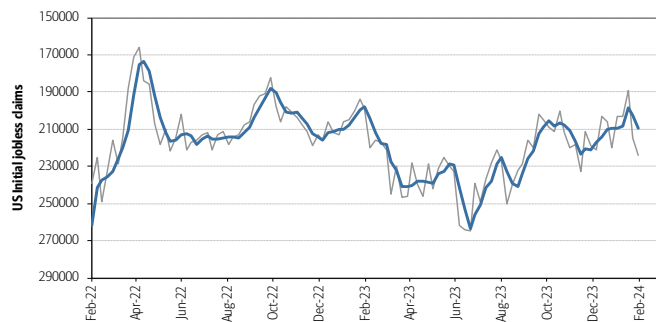


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 42: US Initial jobless claims, weekly last 2 years**

US initial jobless claims increased by +9,000 to 224,000

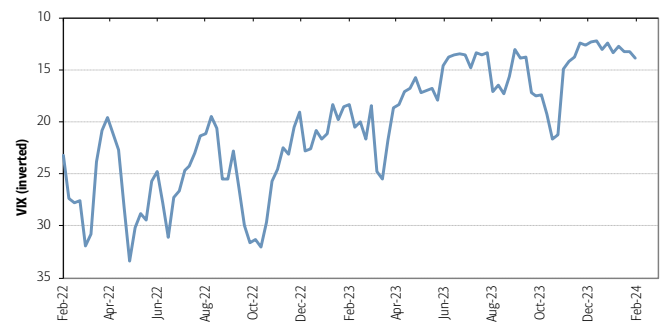


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 43: VIX (inverted), weekly last 2 years**

VIX moved from 13.3 to 13.9



Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 44: Global Credit Spreads, weekly 2 years**

Global credit spreads widened (+7 bps)

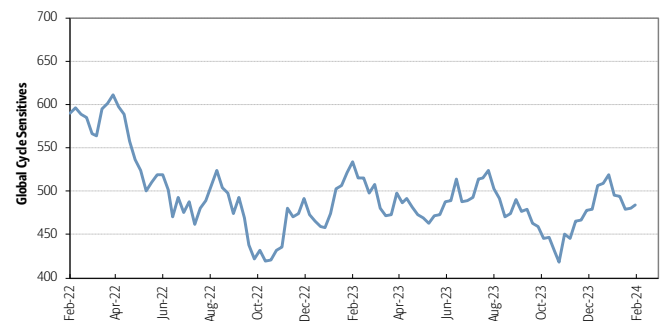


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 45: Global Cycle Sensitives, weekly returns 2 year**

Global Cycle Sensitives outperformed (+0.6%)



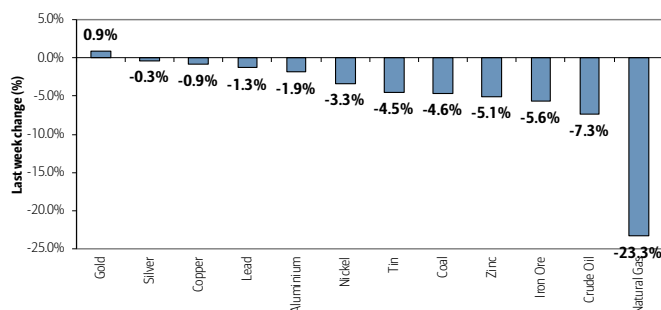
Source : BofA Global Quantitative Strategy, Bloomberg

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# Commodities

**Chart 46: Hard Commodities - Last week change**

Gold increased the most last week

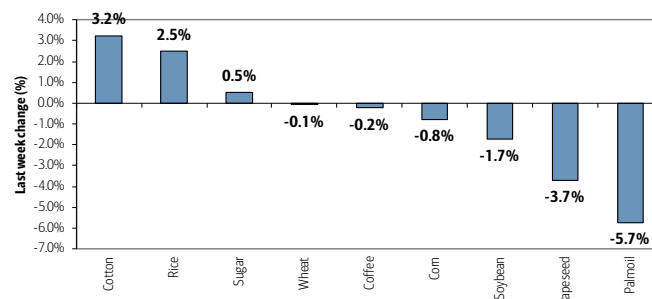


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 47: Soft Commodities - Last week change**

Cotton increased the most last week

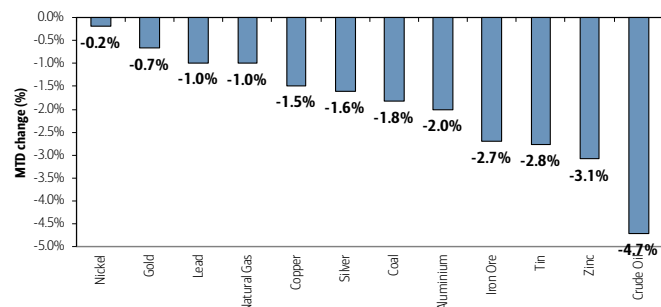


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 48: Hard Commodities - MTD change**

Nickel increased the most MTD

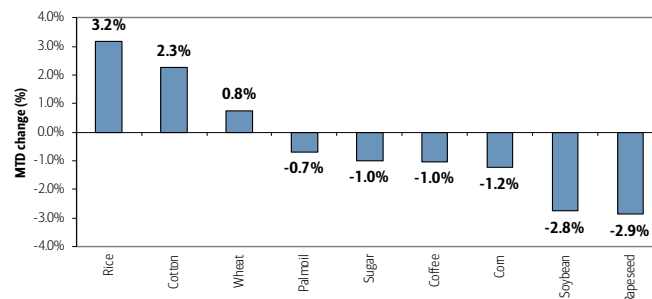


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 49: Soft Commodities - MTD change**

Rice increased the most MTD

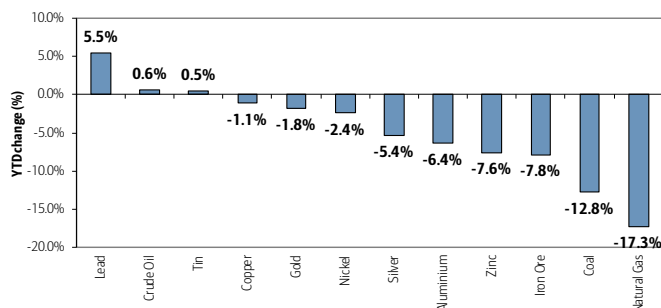


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 50: Hard Commodities - YTD change**

Lead increased the most YTD

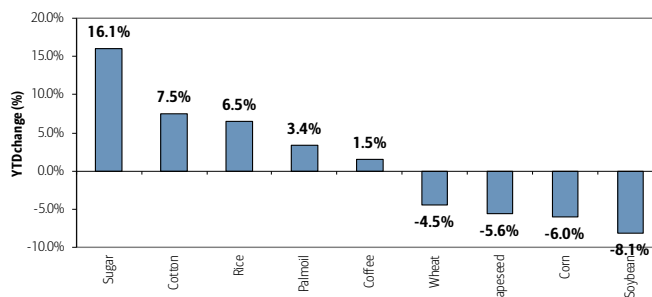


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 51: Soft Commodities - YTD change**

Sugar increased the most YTD



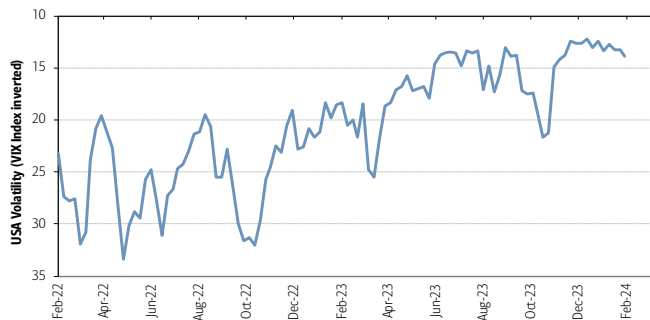
Source : BofA Global Quantitative Strategy, Bloomberg

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# Volatility

**Chart 52: USA Volatility (VIX Index) - Inverted**

VIX Index moved from 13.3 to 13.9

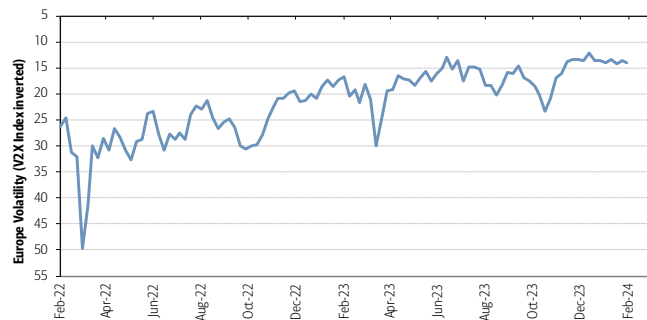


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 53: Europe Volatility (V2X Index) - Inverted**

V2X Index moved from 13.6 to 14.0

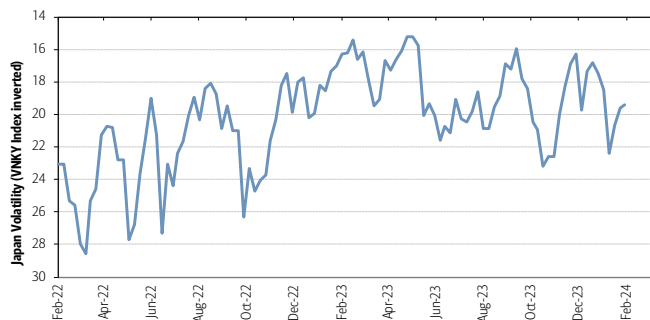


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 54: Japan Volatility (VNKY Index) - Inverted**

VNKY Index moved from 19.6 to 19.4

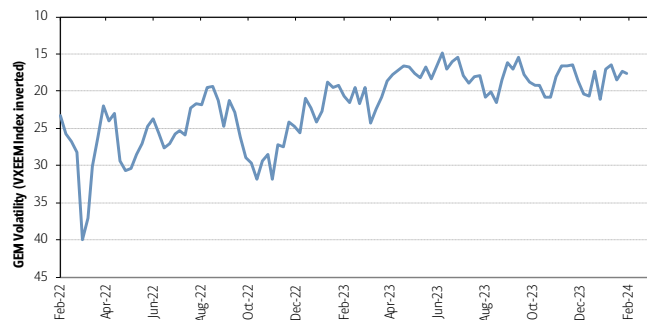


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 55: Emerging Markets Volatility (VXEEM Index) - Inverted**

VXEEM Index moved from 17.3 to 17.7



Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 56: Hong Kong Volatility (VHSI Index) - Inverted**

VHSI Index moved from 25.5 to 25.5

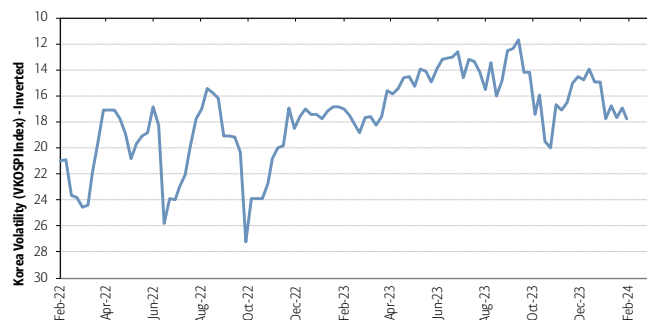


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 57: Korea Volatility (VKOSPI Index) - Inverted**

VKOSPI Index moved from 17.0 to 17.8



Source : BofA Global Quantitative Strategy, Bloomberg

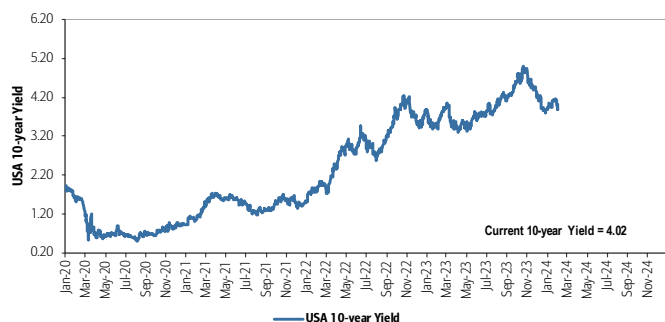
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# Rates

**Chart 58: USA 10-year Bond Yield**

US 10-year yield fell by -12 bps to 4.02%

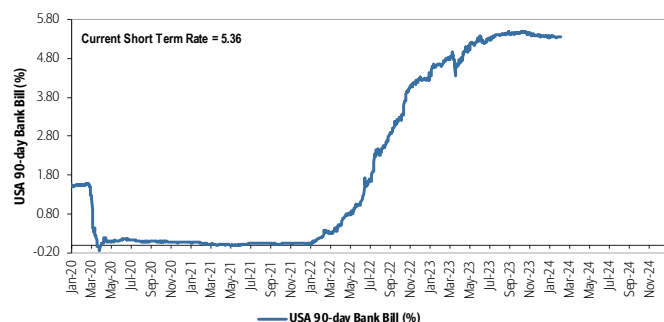


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 59: USA 90-day Bank Bill**

US 90-day yield up by 1 bps to 5.36%

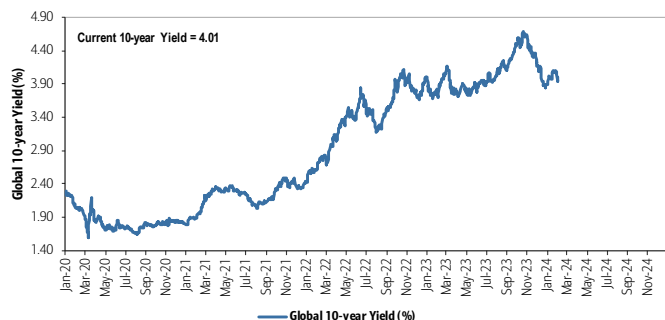


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 60: Global 10-year Bond Yield**

Current 10-yr Global GDP weighted bond yield is 4.01%

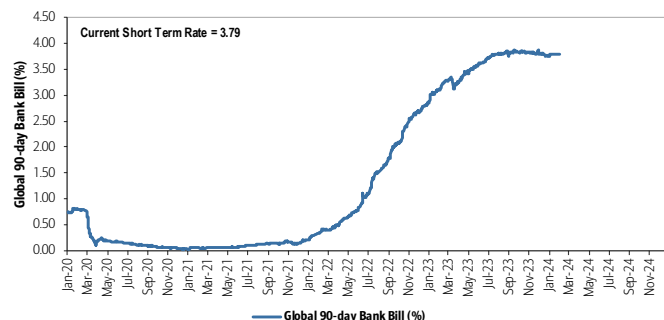


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 61: Global 90-day Bank Bill**

Current 90d Global GDP weighted bond yield is 3.79%

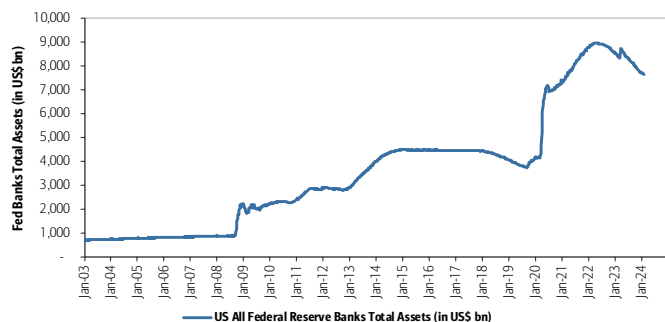


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 62: US Federal Reserve Total Assets (in US\$ bn)**

Last week, Fed Reserve's balance sheet reduced by US\$-44bn

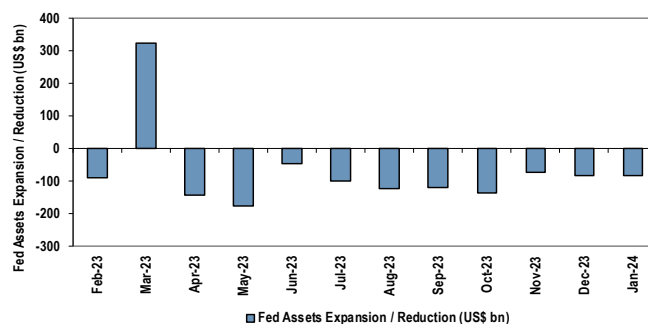


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 63: US Federal Reserve Assets Expansion / Reduction (US\$ bn)**

Last month, Fed reduced the balance sheet by US\$ -83bn



Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 64: China 10-year Bond Yield**

Current China 10-year Yield = 2.43%



Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 65: China 90-day Bank Bill**

Current China 90-day Rate = 1.89%



Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 66: Asia Pac ex-Japan 10-year Bond Yield**

Current 10-year Asia Pac GDP weighted bond yield is 3.37%

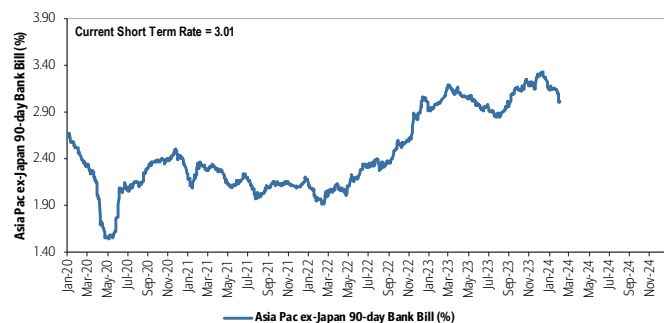


Source : BofA Global Quantitative Strategy, Bloomberg

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**Chart 67: Asia Pac ex-Japan 90-day Bank Bill**

Current 90d Asia Pac GDP weighted bond yield is 3.01%



Source : BofA Global Quantitative Strategy, Bloomberg

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**Table 4: USA Yield Curve slope and subsequent Global Regions & Sectors relative returns (median 12m)**

When the US yield curve slope was near current levels, the subsequent 12m return of ACWI has been -16.4%

Global Sector	-0.50% – -0.25%	-0.25% – 0.00%	0.00% – 0.25%	0.25% – 0.50%	0.50% – 0.75%	0.75% – 1.00%	1.00% – 1.25%	1.25% – 1.50%	1.50% – 1.75%	1.75% – 2.00%	2.00% – 2.25%	2.25% – 2.50%	2.50% – 2.75%	2.75% – 3.00%
Cons. Staples	22.4%	4.4%	-0.5%	3.0%	4.7%	-6.5%	9.0%	5.8%	3.2%	3.2%	-4.4%	-2.6%	4.3%	-4.0%
Energy	18.7%	14.0%	-2.4%	-3.0%	10.9%	0.3%	3.5%	-2.5%	-3.7%	-3.0%	-5.0%	-3.0%	-6.8%	1.9%
Banks	17.0%	-6.1%	-10.5%	-4.1%	1.4%	4.1%	1.9%	-0.9%	-4.4%	3.0%	3.5%	-1.1%	-10.0%	-9.5%
Real Estate	16.4%	-1.8%	-7.7%	-8.1%	-4.0%	-8.2%	-3.5%	-3.1%	5.9%	0.3%	4.2%	4.5%	4.1%	2.9%
Health Care	14.5%	-5.8%	2.0%	10.6%	14.3%	1.6%	3.6%	7.2%	5.4%	1.1%	-8.1%	-3.1%	5.0%	-11.0%
Utilities	13.3%	7.6%	-0.7%	-6.7%	-7.3%	-5.2%	-3.0%	-1.9%	-6.3%	-3.2%	-3.2%	-2.7%	-7.4%	-13.9%
Materials	12.2%	15.1%	-5.4%	-8.4%	-8.9%	-1.0%	0.7%	-3.6%	-3.8%	2.1%	1.0%	4.0%	-11.5%	6.6%
Insurance	11.9%	-0.2%	-1.6%	1.6%	2.5%	-4.7%	1.1%	2.1%	1.5%	-6.1%	-1.1%	-2.2%	-5.9%	-7.8%
Div Financials	9.0%	-6.3%	-1.4%	2.6%	0.0%	3.8%	-1.4%	0.2%	1.4%	0.4%	4.0%	-7.5%	-12.3%	-8.5%
Industrials	5.9%	2.7%	-1.4%	-2.1%	-4.9%	-1.8%	-1.2%	1.1%	1.2%	-0.7%	1.4%	4.0%	-0.8%	5.4%
Cons. Discretionary	1.9%	-1.3%	-0.5%	-0.3%	-4.6%	-1.7%	-4.1%	3.5%	2.2%	3.9%	3.5%	1.6%	4.8%	6.0%
Media & Ent.	-1.2%	-2.9%	5.1%	8.4%	-4.9%	-4.8%	-14.3%	0.6%	1.2%	2.0%	1.7%	1.8%	4.4%	6.7%
Telecom	-18.9%	14.0%	1.9%	-0.8%	-9.7%	-14.2%	-7.8%	-3.7%	-4.4%	-2.4%	-3.1%	-1.9%	-0.6%	-2.1%
Software	-19.7%	2.1%	18.4%	20.1%	8.8%	13.3%	9.0%	10.5%	14.2%	4.3%	1.0%	1.2%	6.9%	-1.8%
Semiconductors	-30.4%	-6.6%	16.9%	5.9%	18.6%	10.5%	12.5%	4.8%	2.6%	0.9%	13.7%	11.0%	7.5%	2.0%
Tech Hardware	-35.2%	3.5%	18.9%	5.1%	3.0%	8.4%	6.2%	1.2%	-4.5%	1.6%	10.9%	2.7%	6.3%	-0.5%
World	-16.4%	6.0%	9.5%	11.6%	12.2%	11.3%	5.1%	2.8%	7.5%	2.0%	11.2%	11.8%	3.6%	14.5%
USA	-13.5%	10.0%	11.5%	17.7%	24.5%	15.4%	10.1%	7.5%	2.7%	3.6%	9.1%	11.2%	9.1%	16.9%
Europe	-14.7%	13.6%	5.2%	14.2%	17.8%	7.6%	6.1%	5.1%	7.8%	0.0%	15.2%	12.8%	-7.0%	10.5%
Japan	-25.2%	-5.4%	1.6%	-0.8%	-12.1%	7.6%	-7.7%	-5.4%	4.8%	-0.5%	17.2%	10.0%	-1.0%	5.4%
GEM	-23.4%	22.3%	4.0%	4.1%	2.4%	19.4%	2.5%	0.3%	-3.9%	5.1%	20.6%	17.5%	5.2%	17.1%
Asia Pac ex-Japan	-21.1%	15.5%	3.7%	6.2%	-2.5%	14.4%	4.2%	4.9%	0.4%	8.5%	17.8%	15.4%	5.7%	16.2%

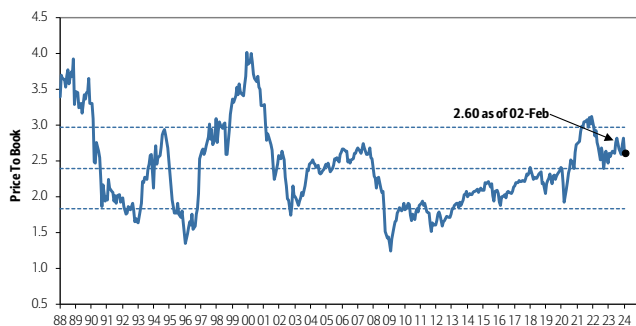
Source : BofA Global Quantitative Strategy, MSCI, Bloomberg

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# Valuation

**Chart 68: Global Price-to-Book trailing**

The latest Global Price-to-Book ratio is 2.60

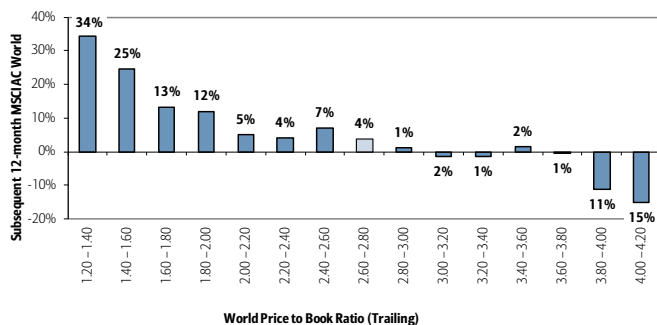


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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**Chart 70: Global Price-to-Book trailing and ACWI subsequent 12m returns**

For current PB level, MSCI ACWI returns 4% in the subsequent 12m on average

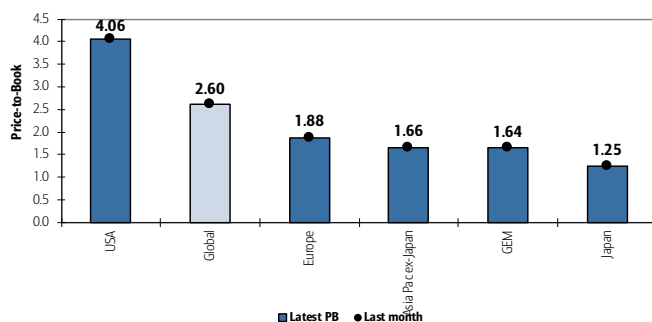


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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**Chart 72: Price-to-Book: Global Regions**

In terms of PB, the USA is the most expensive region

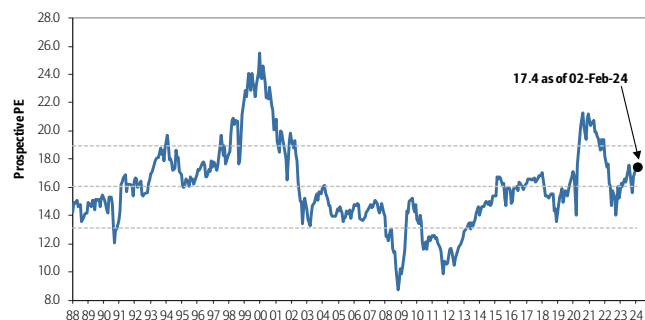


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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**Chart 69: Global Prospective PE**

The latest Global Prospective PE is 17.4

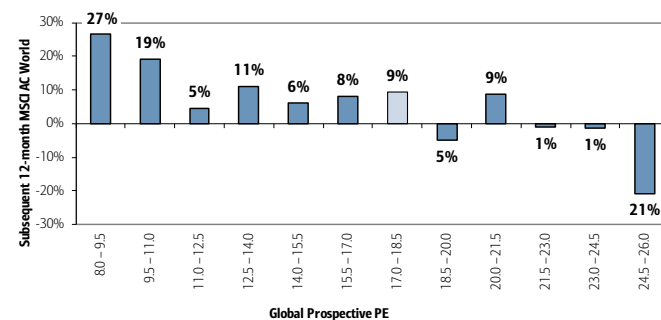


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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**Chart 71: Global Prospective PE and ACWI subsequent 12m returns**

For current PE level, MSCI ACWI returns 9% in the subsequent 12m on average

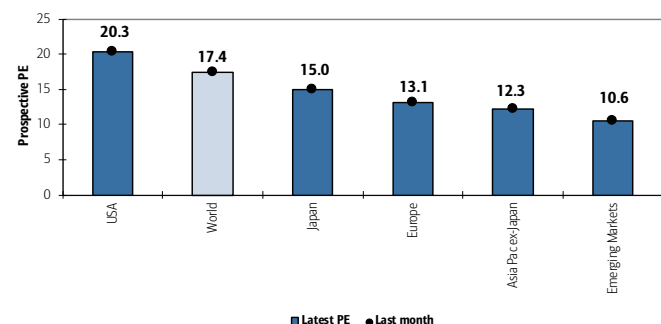


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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**Chart 73: Global Prospective PE: Global Regions**

In terms of PE, GEM is the most inexpensive region



Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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# Triple Momentum

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In this analysis, we highlight the power of combining three types of momentum, including Earnings Momentum, Price Momentum, and News Momentum.

**Earnings Momentum** quantifies the sentiment of sell-side analysts by monitoring changing consensus earnings estimates, and is defined as the three-month change in the consensus EPS estimate for each stock.

**Price Momentum**, which is what most investors think of when they think of “momentum”, captures the sentiment of market participants who buy and sell equities. Our Price Momentum measure is defined as the slope of the log-linear regression using daily prices over the preceding 12-months.

**News Momentum** captures the sentiment from all other market players including journalists, experts, regulators, corporates, and more. We calculate a News Pulse for each stock which quantifies the momentum in news using news articles from the preceding 90 days. Triple Momentum is an amalgamation of Earnings Momentum, Price Momentum and News Momentum.

We screen for Triple Momentum stocks with above-average Earnings Momentum, above-average Price Momentum, top quintile by News Momentum, and above-average one-month change in News Momentum.

For detailed methodology refer [“Signals from Triple Momentum”](#).

**Table 5: Global Region-Sectors - Triple Momentum**

Triple Momentum is currently strongest for Software, Tech Hardware, and Insurance

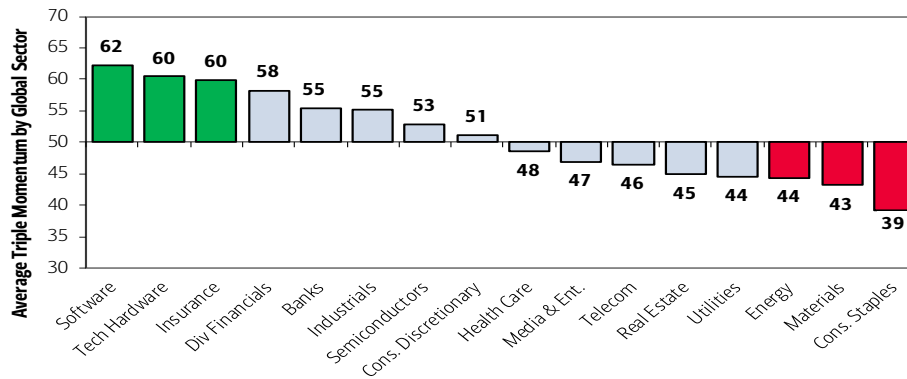
Average Triple Momentum Rank	Banks	Cons. Discretionary	Cons. Staples	Div Financials	Energy	Health Care	Industrials	Insurance	Materials	Media & Ent.	Real Estate	Semiconductors	Software	Tech Hardware	Telecom	Utilities	Region
Canada	31	52	51	66	46		45	70	21		57		60		36	28	45
USA																	
Belgium	34		43	28		49		59	1							84	43
Denmark	95	97	43			41	59		75							69	60
Finland			11		33		51	11	66					21	32	23	35
France	60	42	30	63	59	32	60	57	64	90	53	7	65		56	73	53
Germany	71	34	48	69		27	51	86	40	57	46	47	64		46	63	48
Italy	64	39			48	67	61	52							80	74	61
Netherlands	26	80	8	72		36	56	82	34	32		79			37		54
Spain	69	72			6	17	93								46	33	46
Sweden	45	23		57		3	50		22					21	18		38
Switzerland		23	37	40		49	48	60	46				93	84	20		47
UK																	
Australia	48	48	23	47	25	51	50	60	45	34	38		53		21	30	42
Hong Kong	19	44		14		85	44	65			27		100			18	36
Japan	82	57	41	72	85	52	57	69	50	38	63	72	50	60	45	51	56
Singapore	58	70	53	33			72			18	37				42	100	53
China	35	50	33	54	53	61	43	28	35	48	10	34	34	72		39	44
India	60	73	51	59	82	80	67	42	56	79	91		61		69	67	65
Korea																	
Taiwan	68	31	26	53	5		48	52	26			58		77	29		57
Brazil	69	62	53		88	60	92	65	67						82	61	67
Mexico	83		56				34		82						66		59
Poland					17		100			28						87	52
South Africa	75	45	71	55	77	96	50	47	46		94				26		56
Asia Pac ex-Japan	55	54	37	48	53	62	53	44	43	48	34	50	60	68	48	47	50
Emerging ex-Asia	71	55	53	75	53	84	61	62	50	28	92				61	65	61
Europe	45	42	42	56	25	41	55	60	40	49	57	62	67	46	39	52	48
Japan	82	57	41	72	85	52	57	69	50	38	63	72	50	60	45	51	56
United States	36	51	34	62	39	44	55	67	41	51	43	48	63	52	26	30	49
Global	55	51	39	58	44	48	55	60	43	47	45	53	62	60	46	44	

Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 74: Global Sectors - Average Triple Momentum Rank**

Triple Momentum is currently strongest for Software, Tech Hardware, and Insurance



Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 75: Regional-Sectors with the highest average (green) and lowest average (red) Triple Momentum Rank**  
Triple Momentum highest for Emerging ex-Asia - Real Estate and lowest for Europe - Energy



Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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### Chart 76: Asia Pac ex-Japan Country-Sectors with the highest average (green) and lowest average (red) Triple Momentum Rank (Only country-sectors with minimum 3 stocks with Triple Momentum are included)

Triple Momentum highest for India - Energy and lowest for China - Real Estate



Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

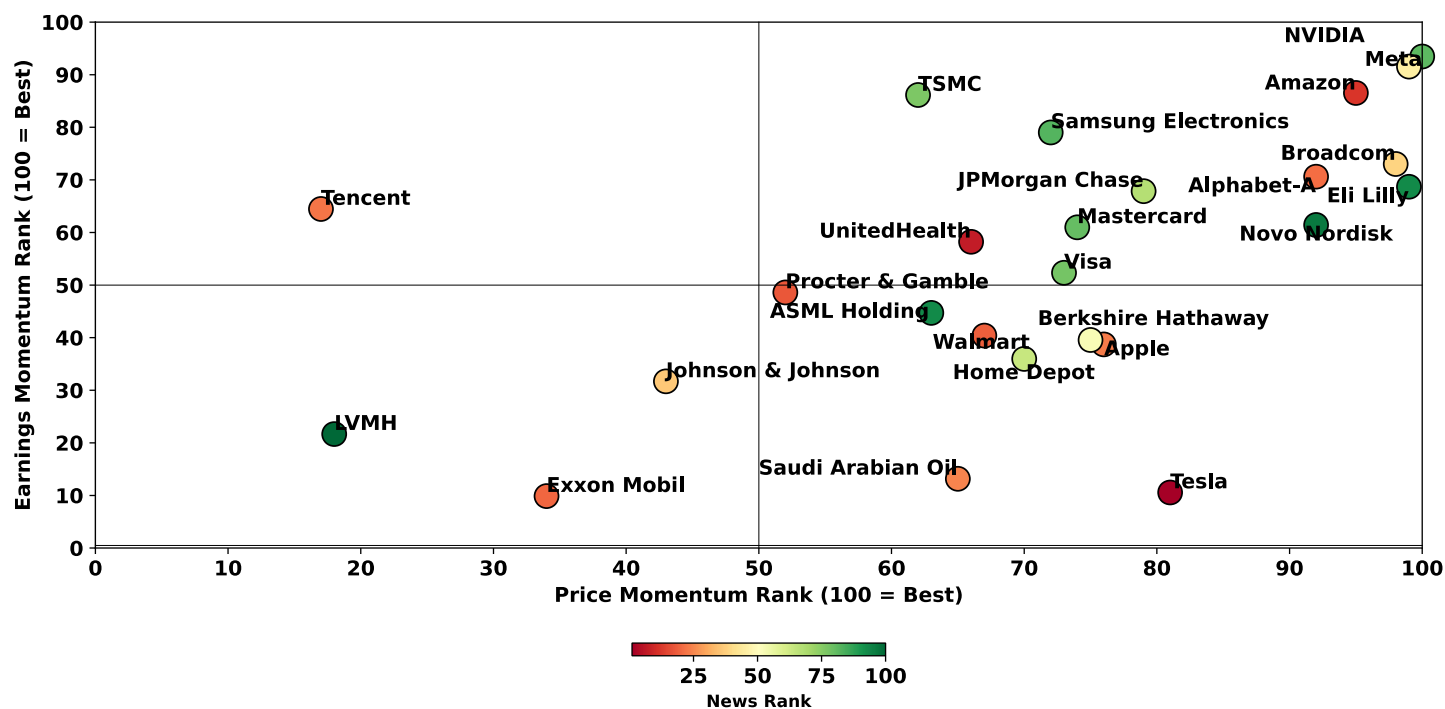
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## Global Regions: Triple Momentum Charts

**Chart 77: Global: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for NVIDIA, Eli Lilly and Novo Nordisk

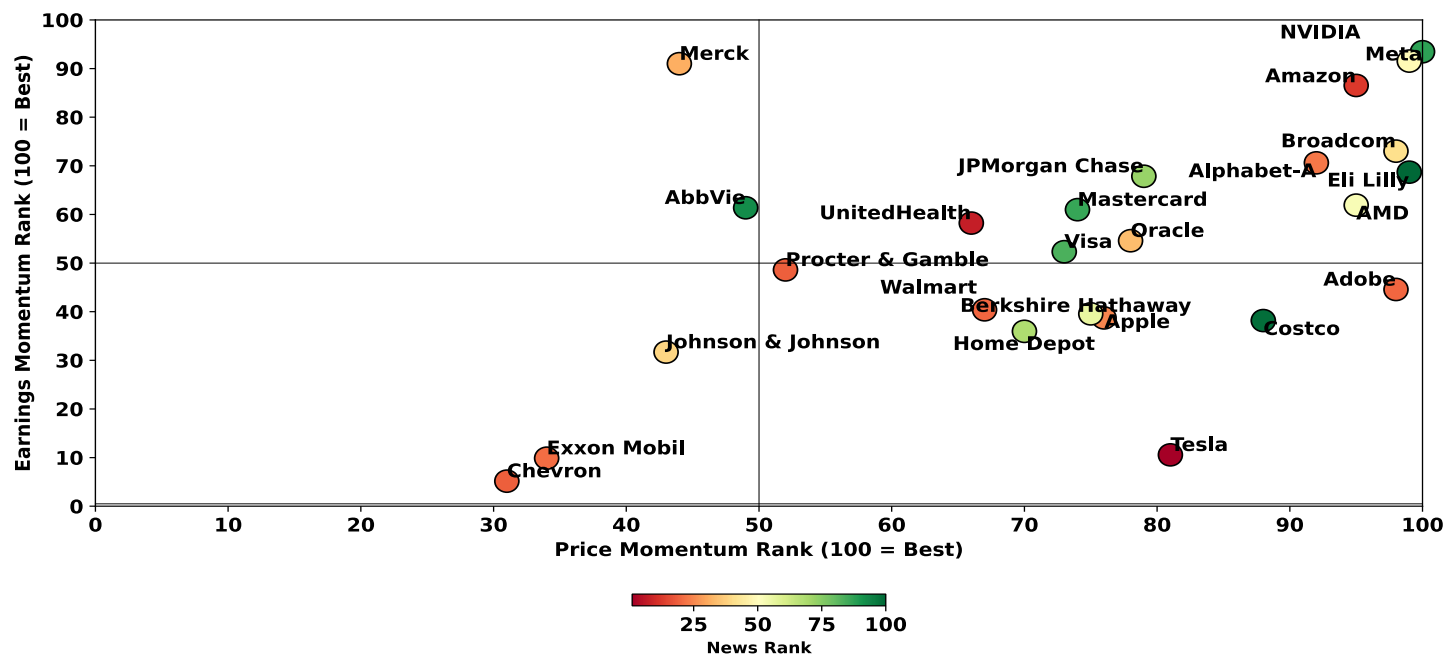


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 78: USA: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for NVIDIA, Eli Lilly and Mastercard

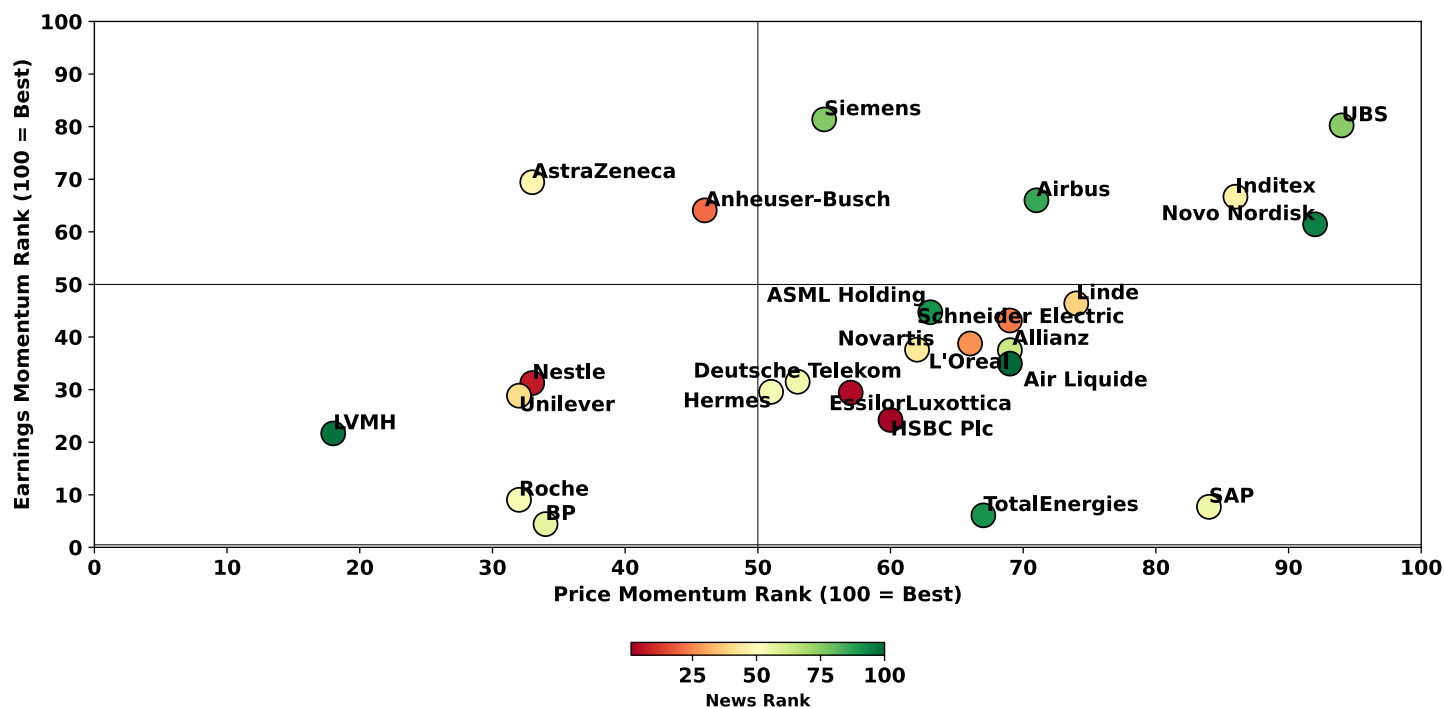


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 79: Europe: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Novo Nordisk, UBS and Airbus

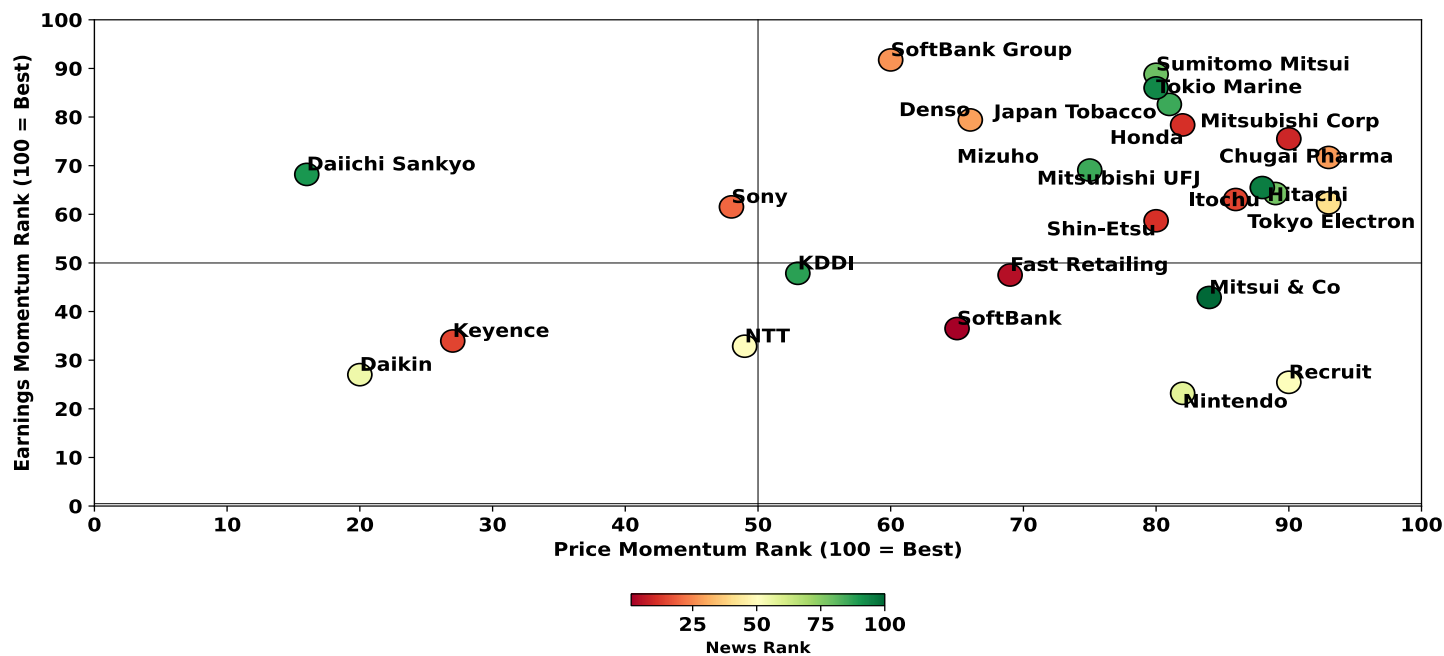


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 80: Japan: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Tokyo Marine, Hitachi and Japan Tobacco

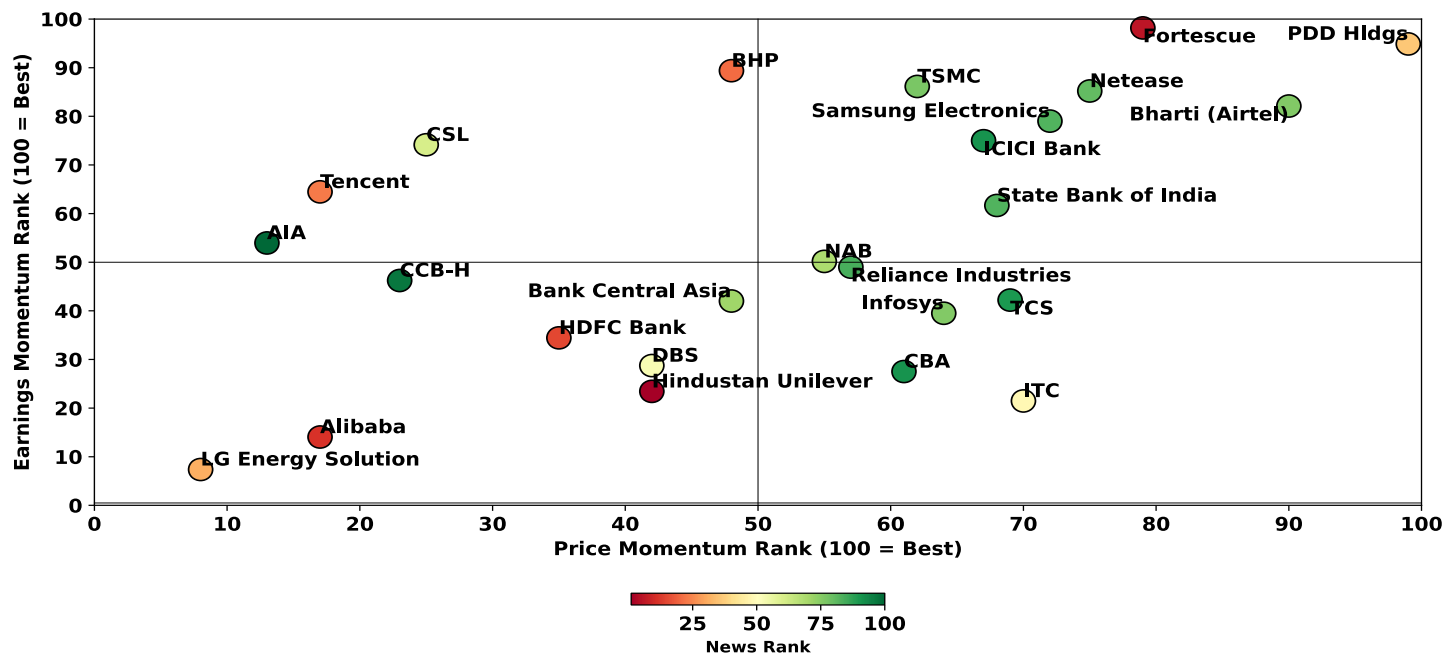


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 81: Asia Pac ex-Japan: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Netease, Bharti (Airtel) and ICICI Bank

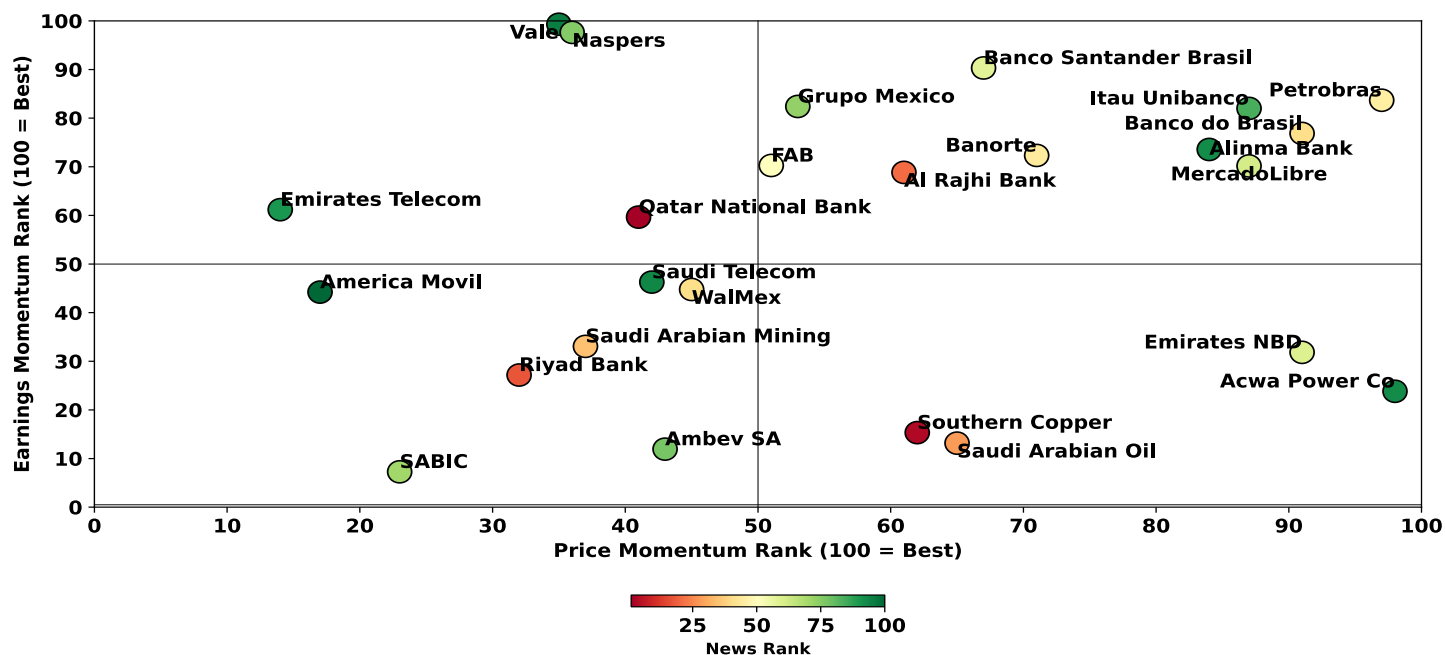


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 82: Emerging ex-Asia: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Alinma Bank, Itau Unibanco and Grupo Mexico



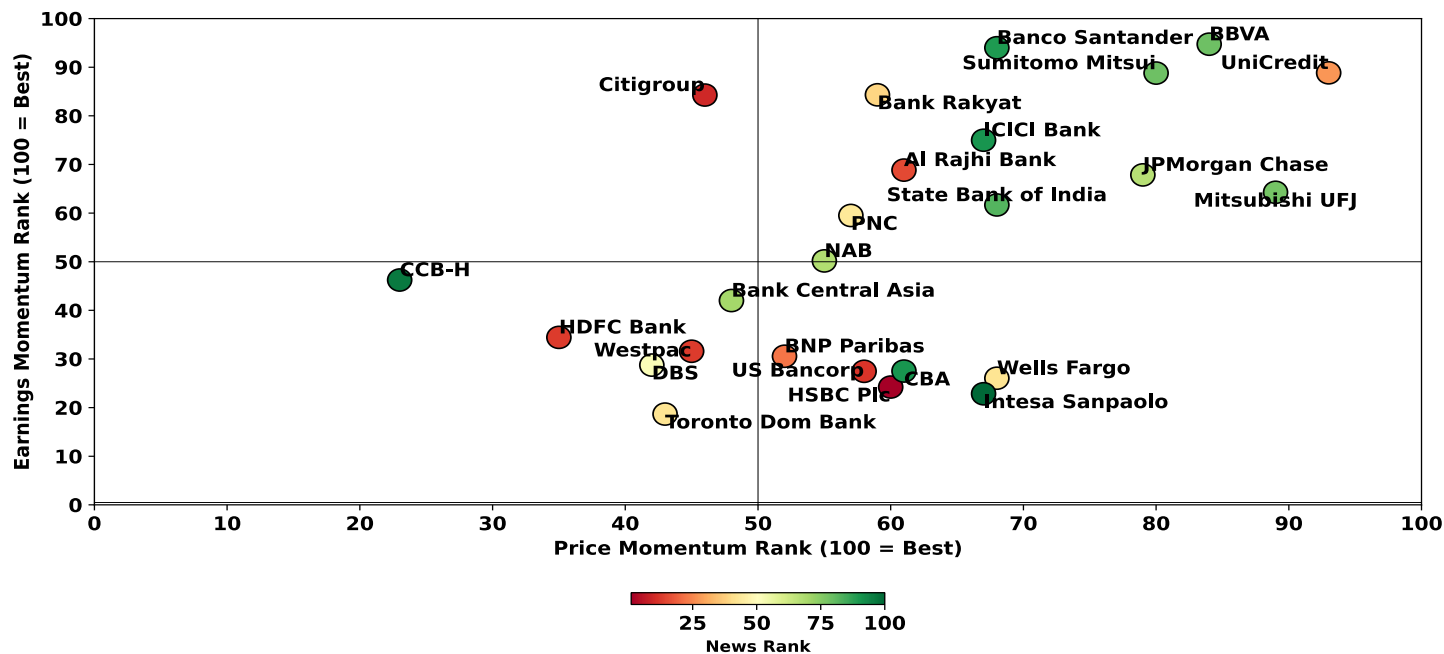
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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## Global Sectors: Triple Momentum Charts

**Chart 83: Banks: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Banco Santander, BBVA and Sumitomo Mitsui

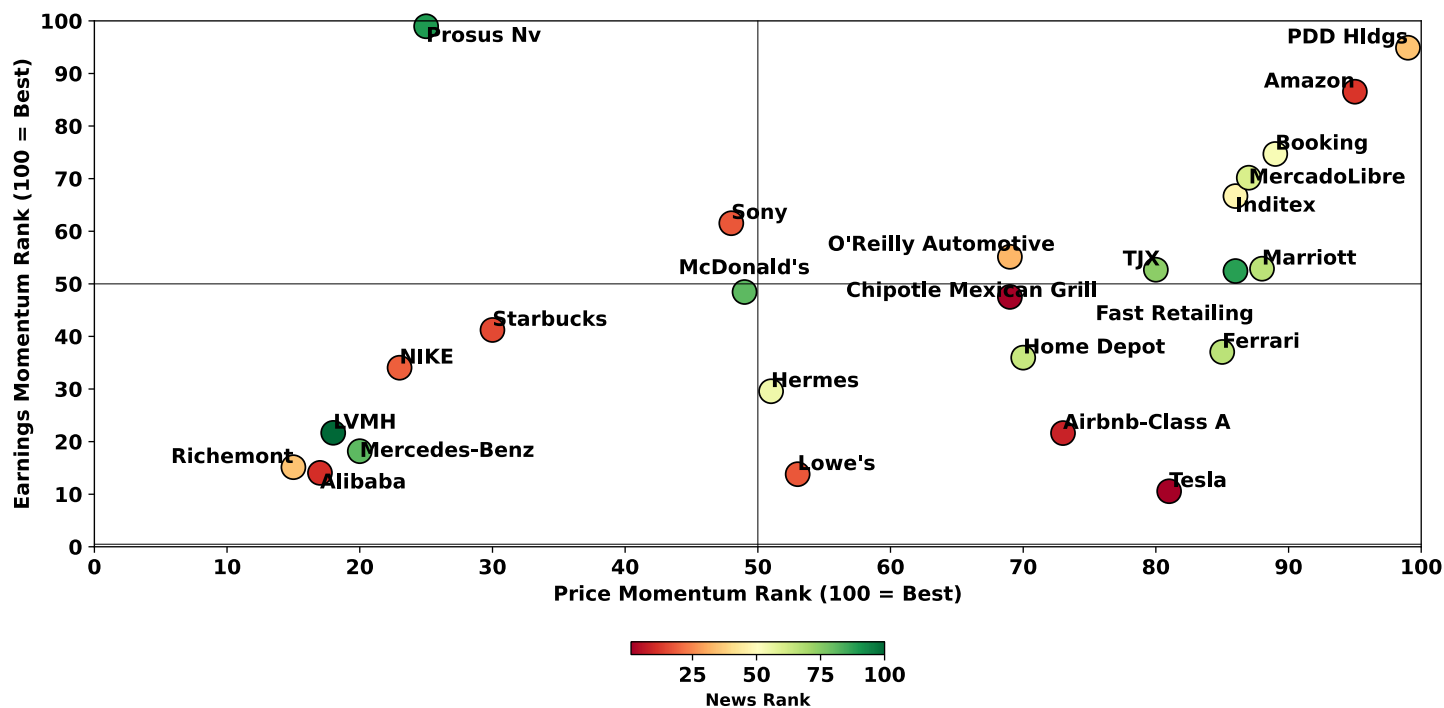


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 84: Consumer Discretionary: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Chipotle Mexican Grill, TJX and MercadoLibre

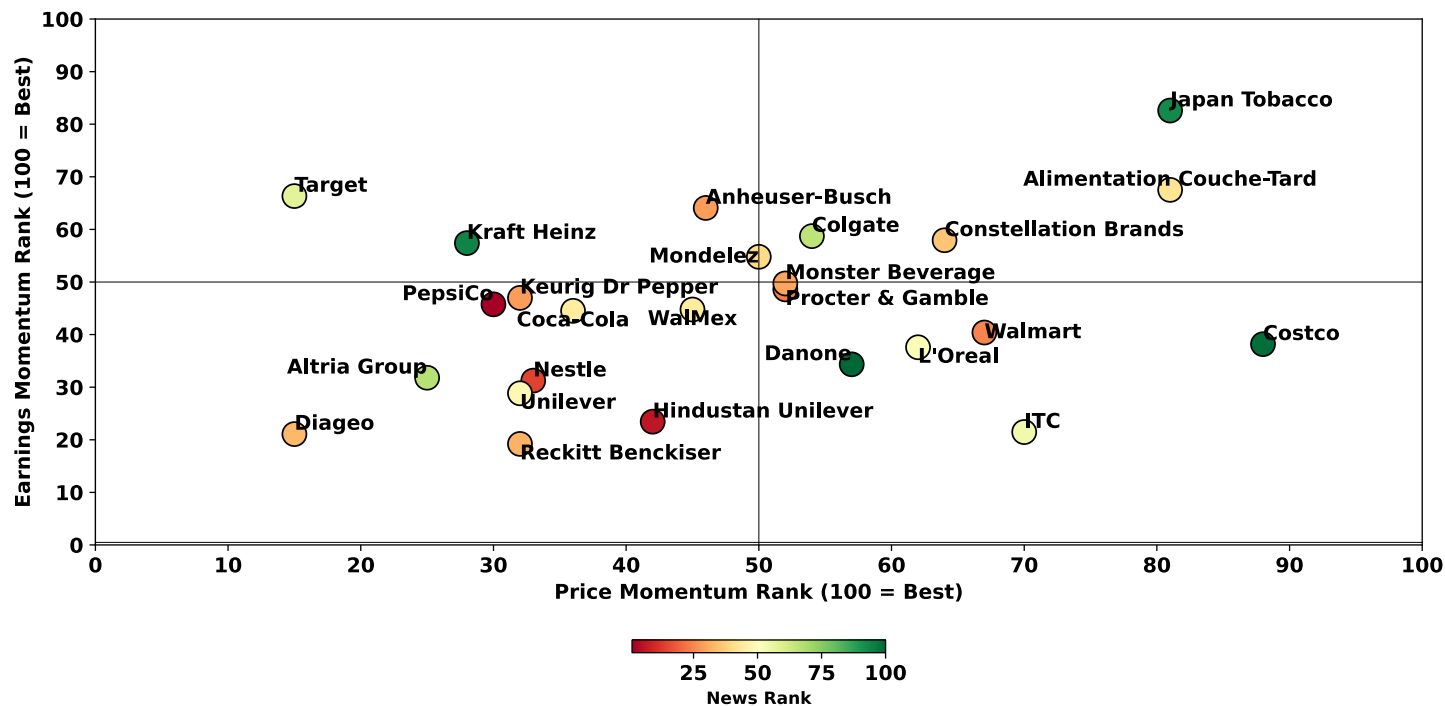


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 85: Consumer Staples: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Japan Tobacco and Colgate

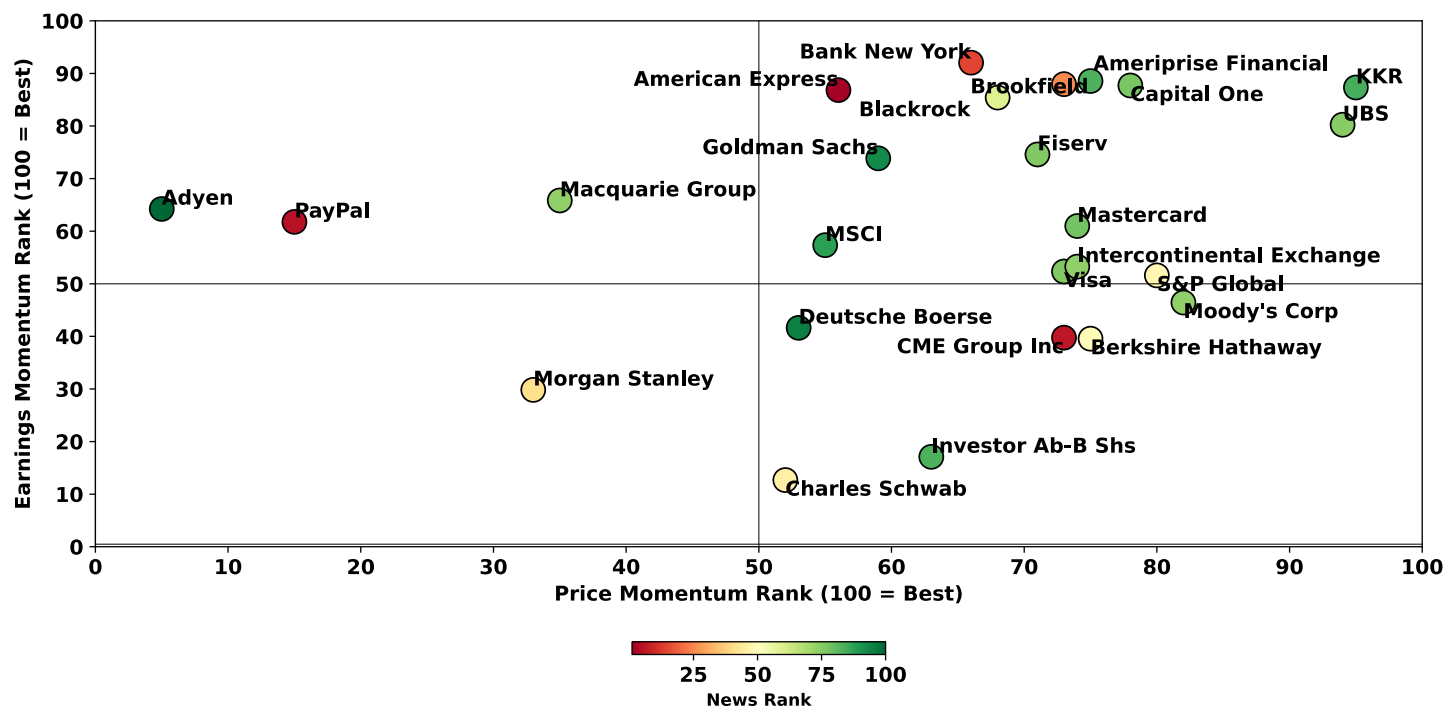


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 86: Diversified Financials: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for KKR, Ameriprise Financial and UBS

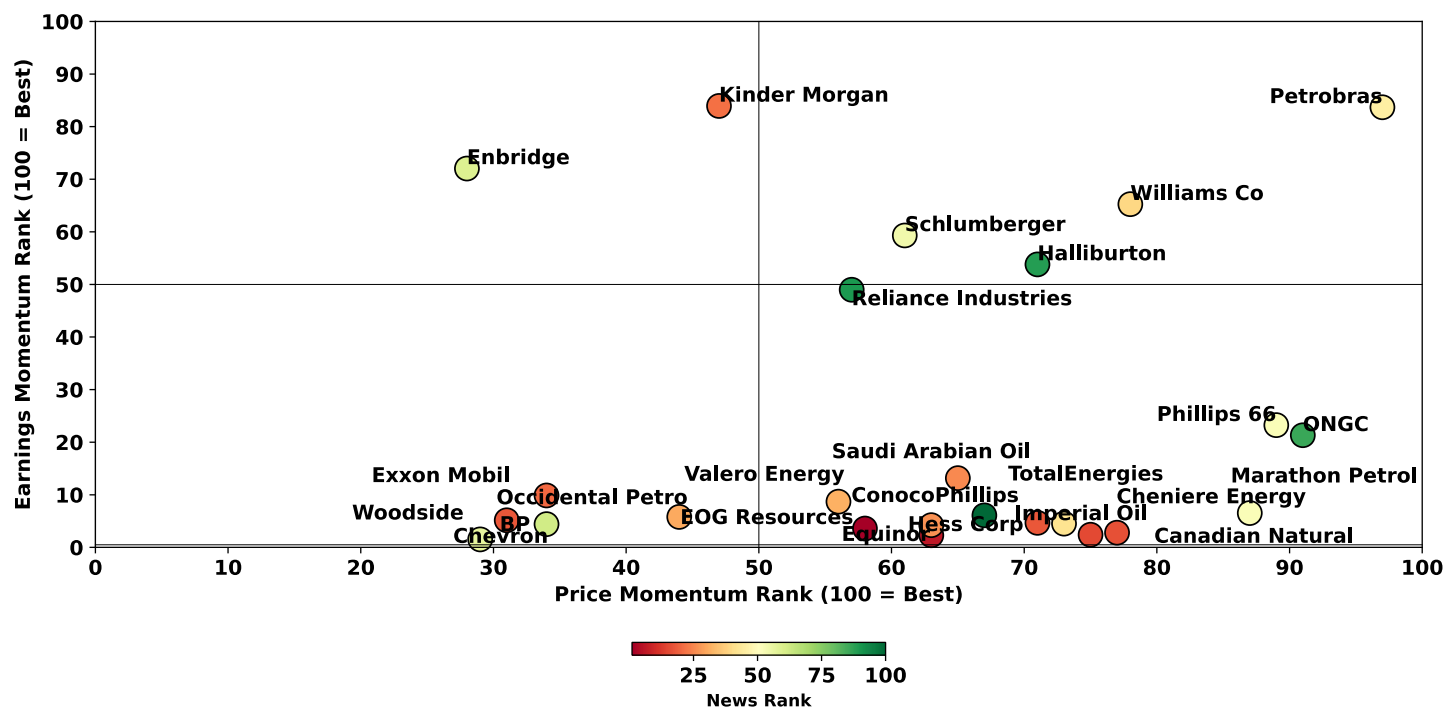


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 87: Energy: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Halliburton and Schlumberger

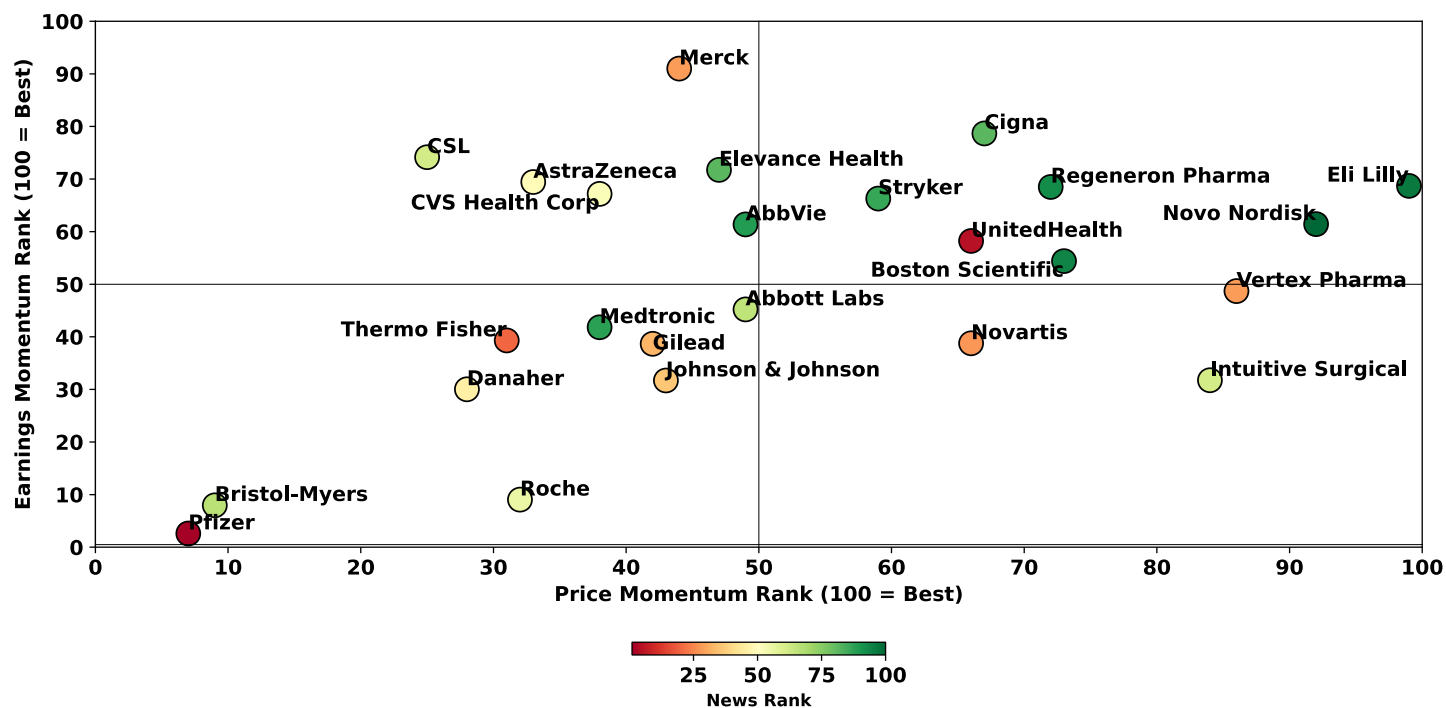


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 88: Health Care: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Eli Lilly, Novo Nordisk and Regeneron Pharma

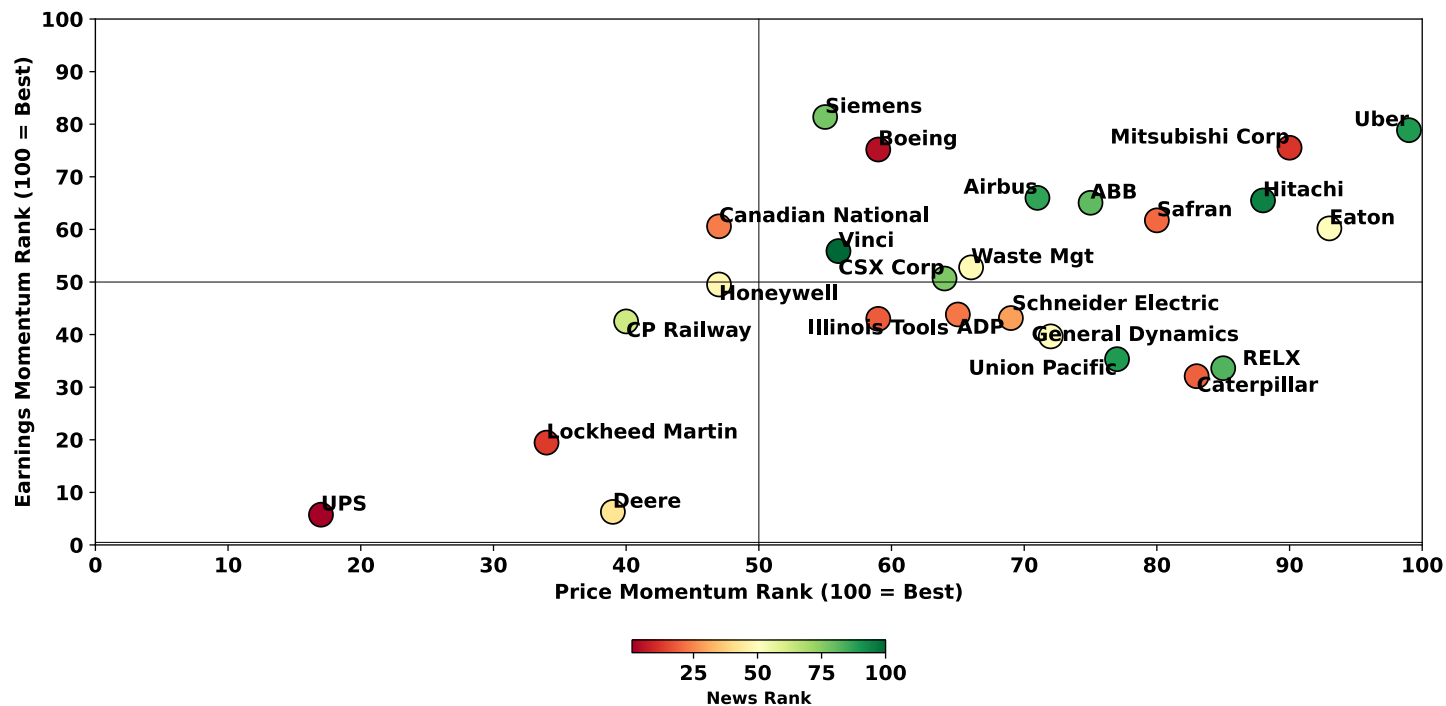


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 89: Industrials: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Uber, Hitachi and Vinci

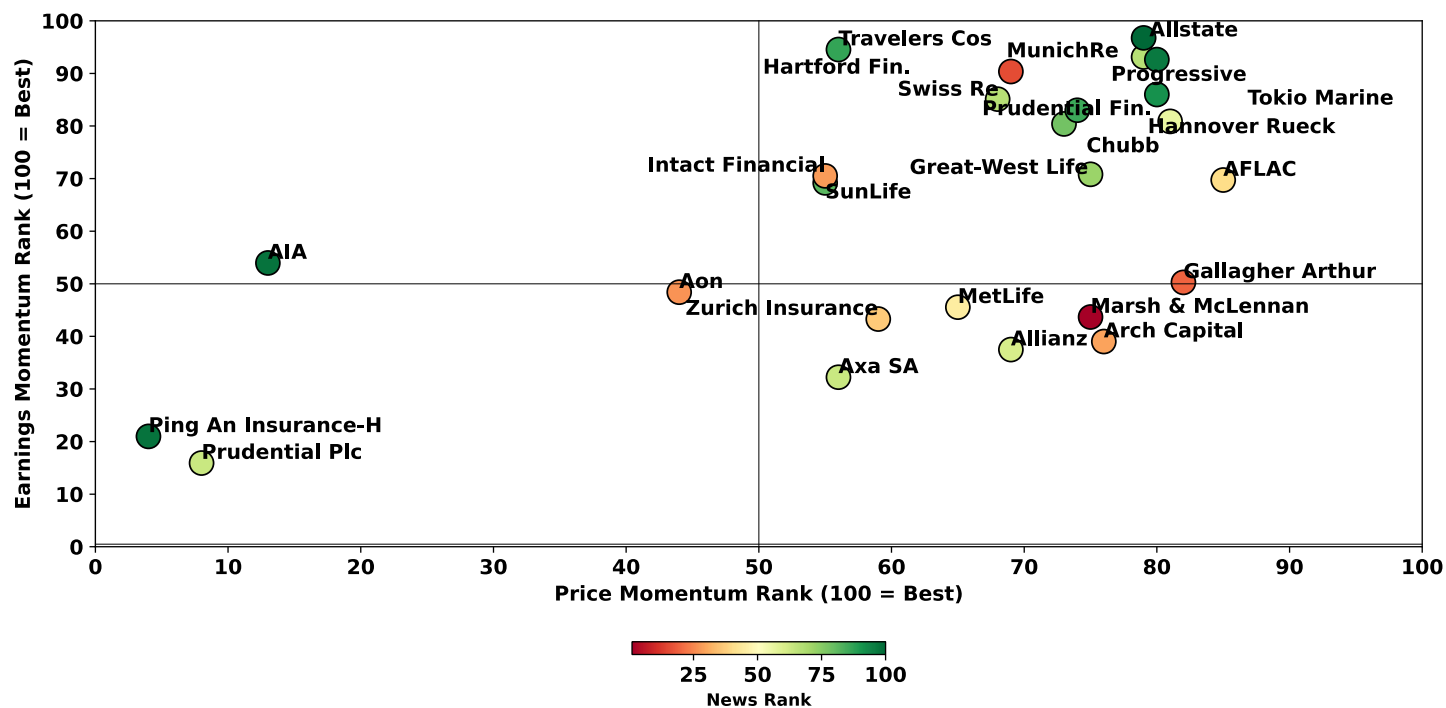


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 90: Insurance: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Allstate, MunichRe and Tokio Marine

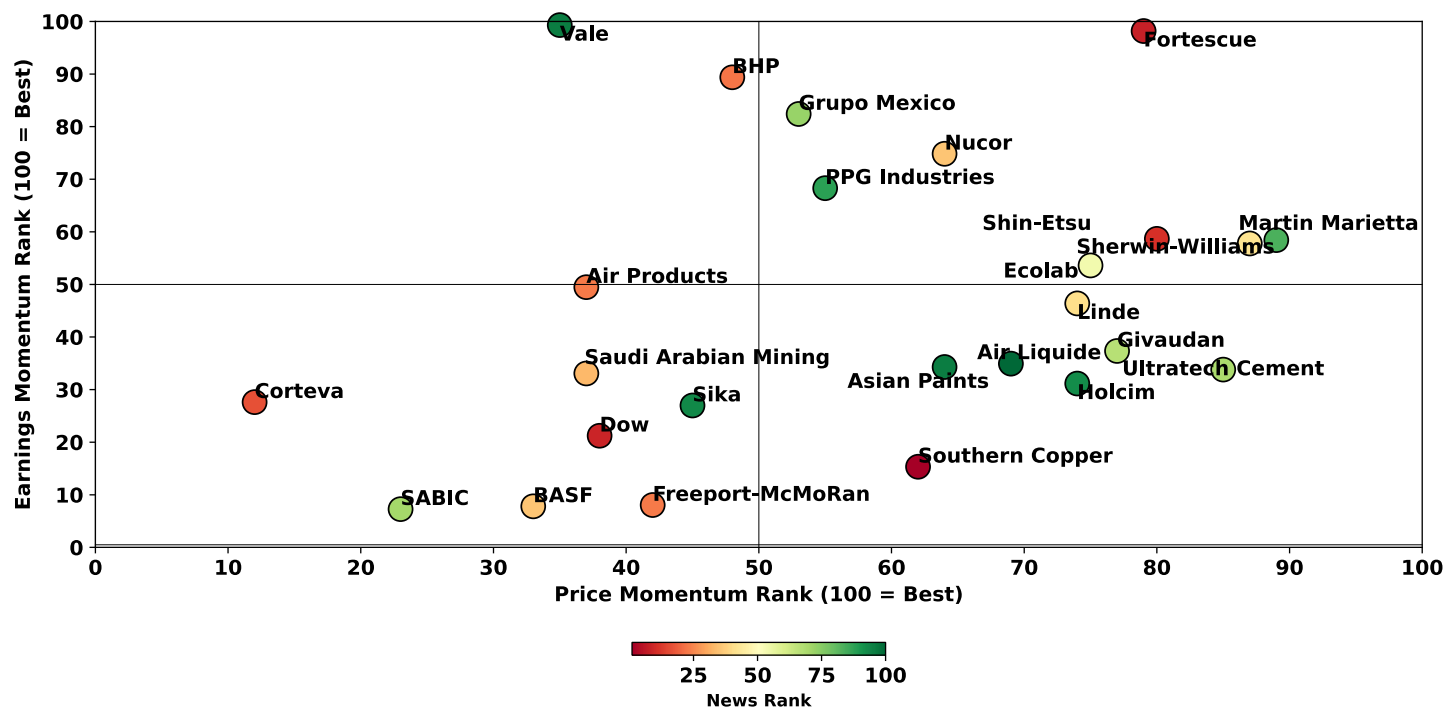


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 91: Materials: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Martin Marietta, PPG Industries and Grupo Mexico

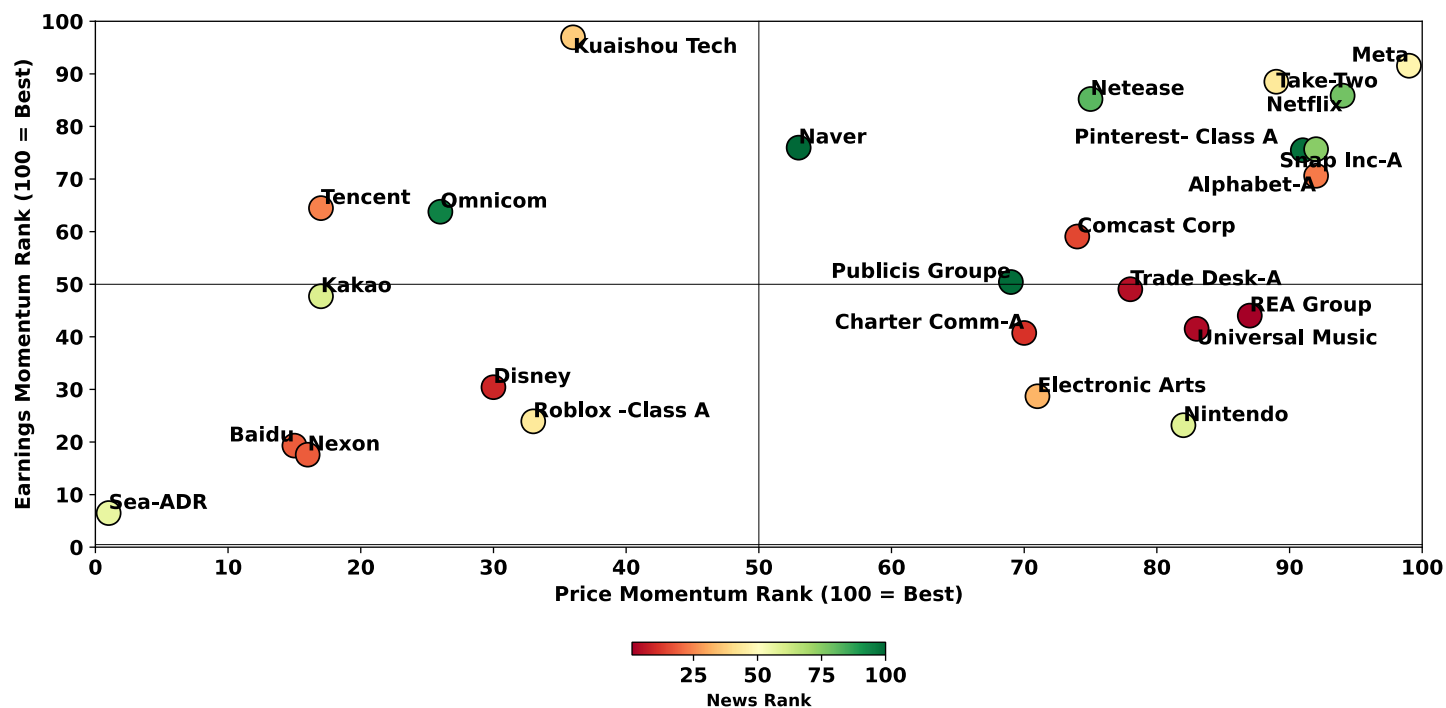


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 92: Media & Entertainment: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Snap Inc-A, Netflix and Netease



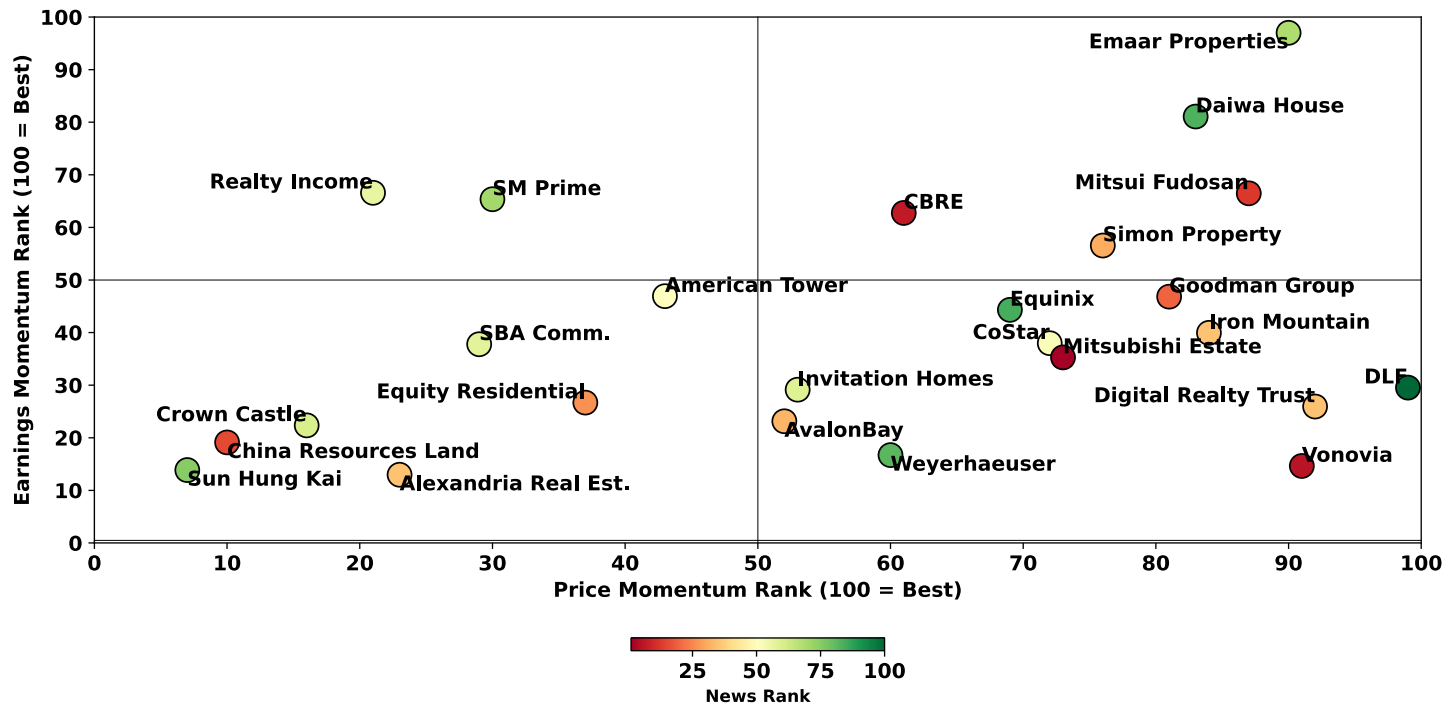
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 93: Real Estate: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Daiwa House and Emaar Properties

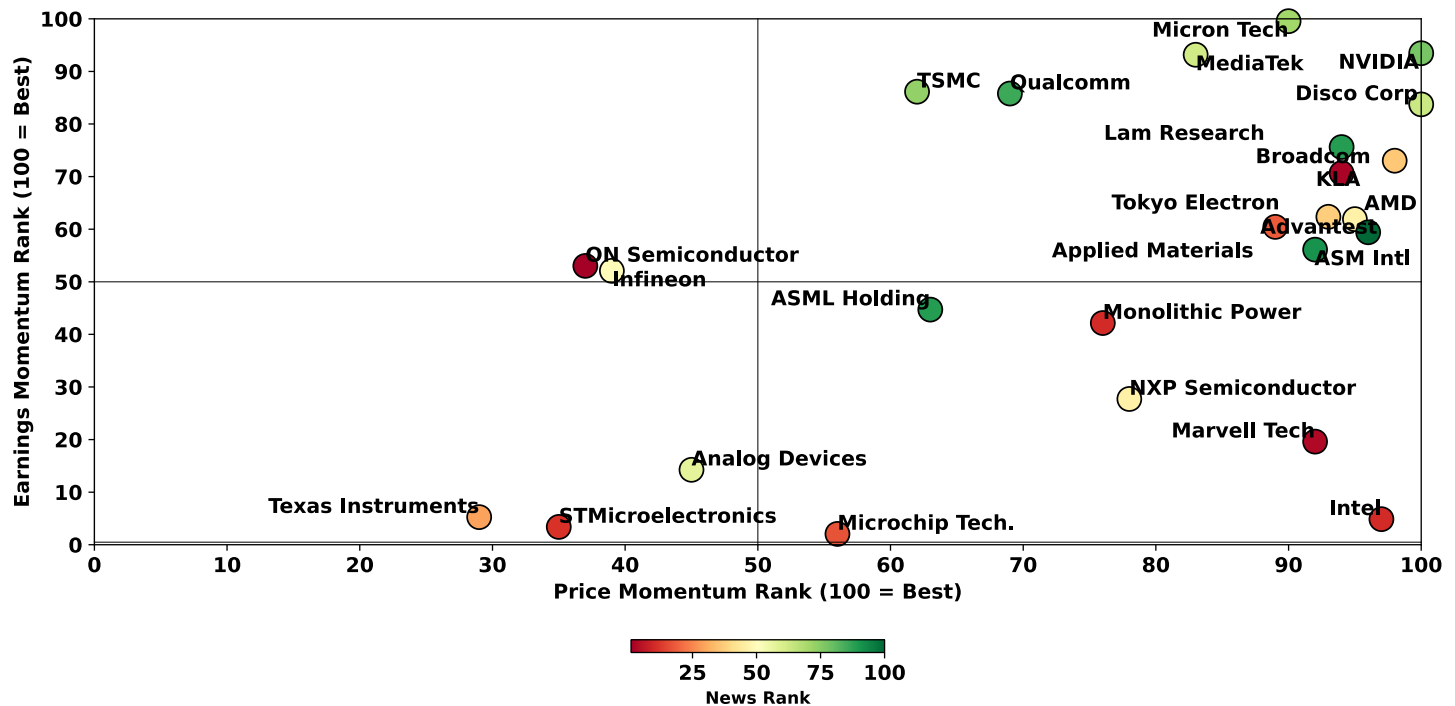


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 94: Semiconductors: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Advantest, Lam Research and NVIDIA

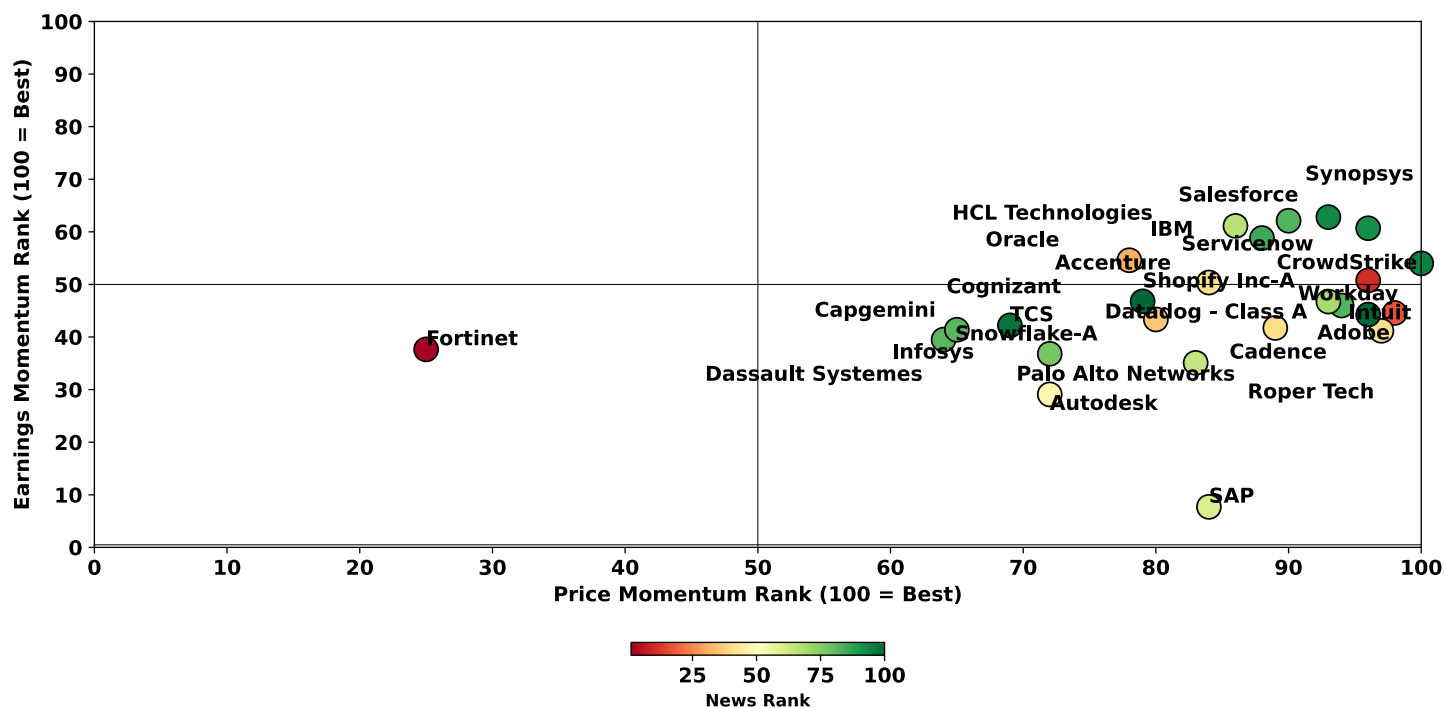


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 95: Software: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Servicenow, Synopsys and CrowdStrike

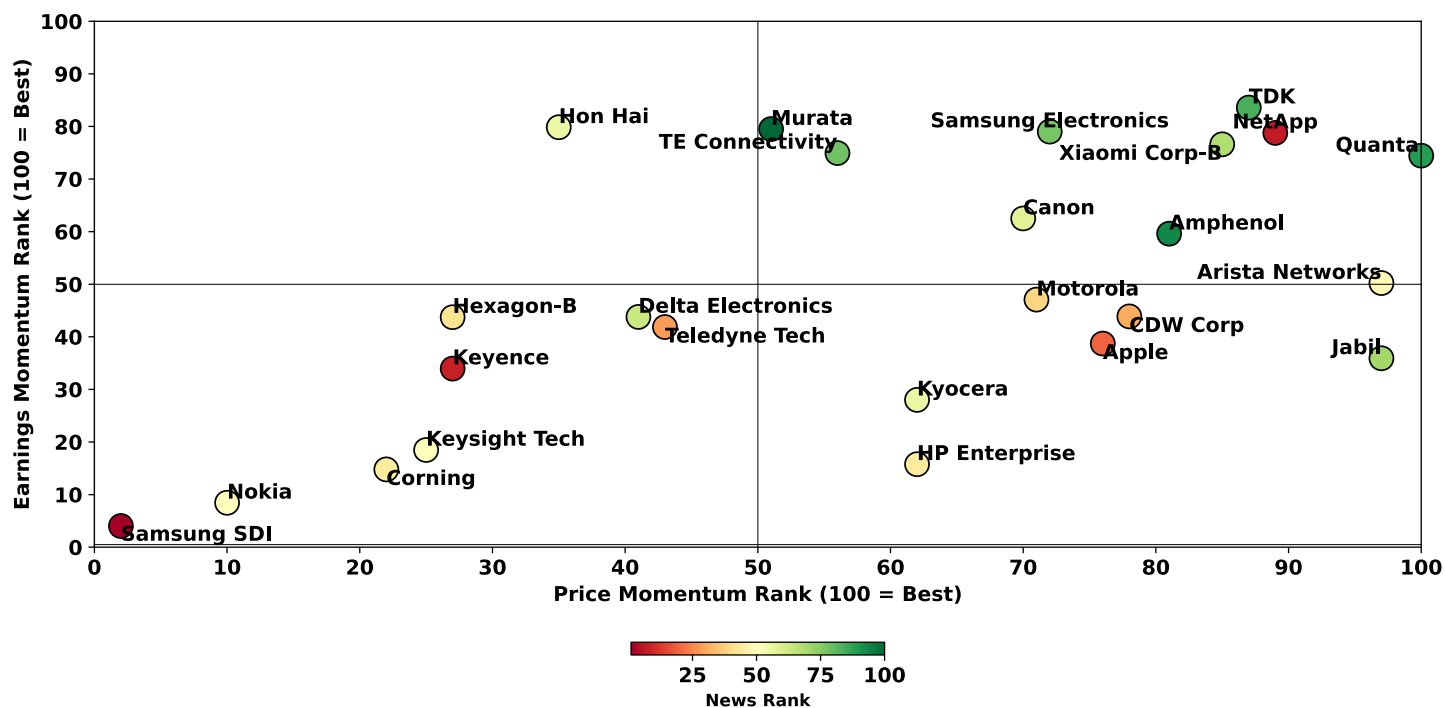


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 96: Tech Hardware: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Quanta, TDK and Murata

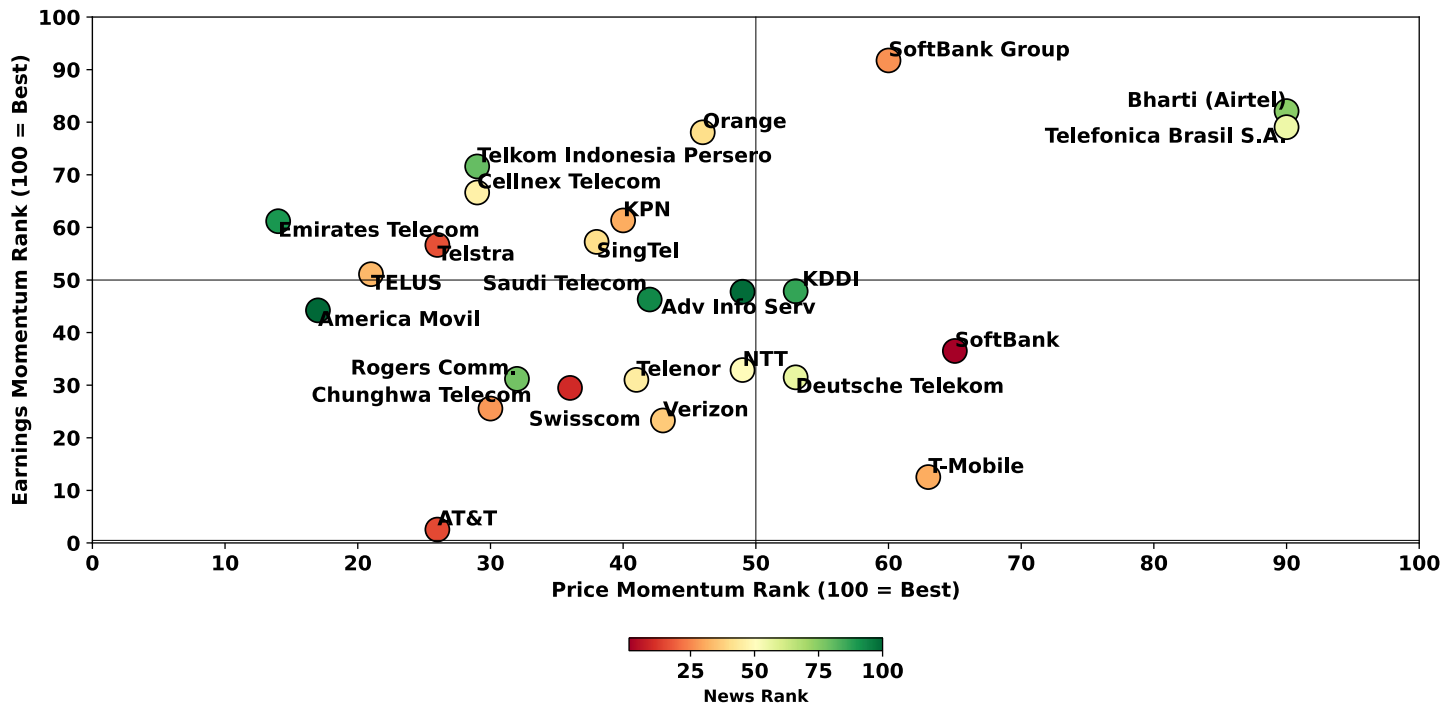


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 97: Telecom: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Bharti (Airtel) and Telefonica Brasil S.A.

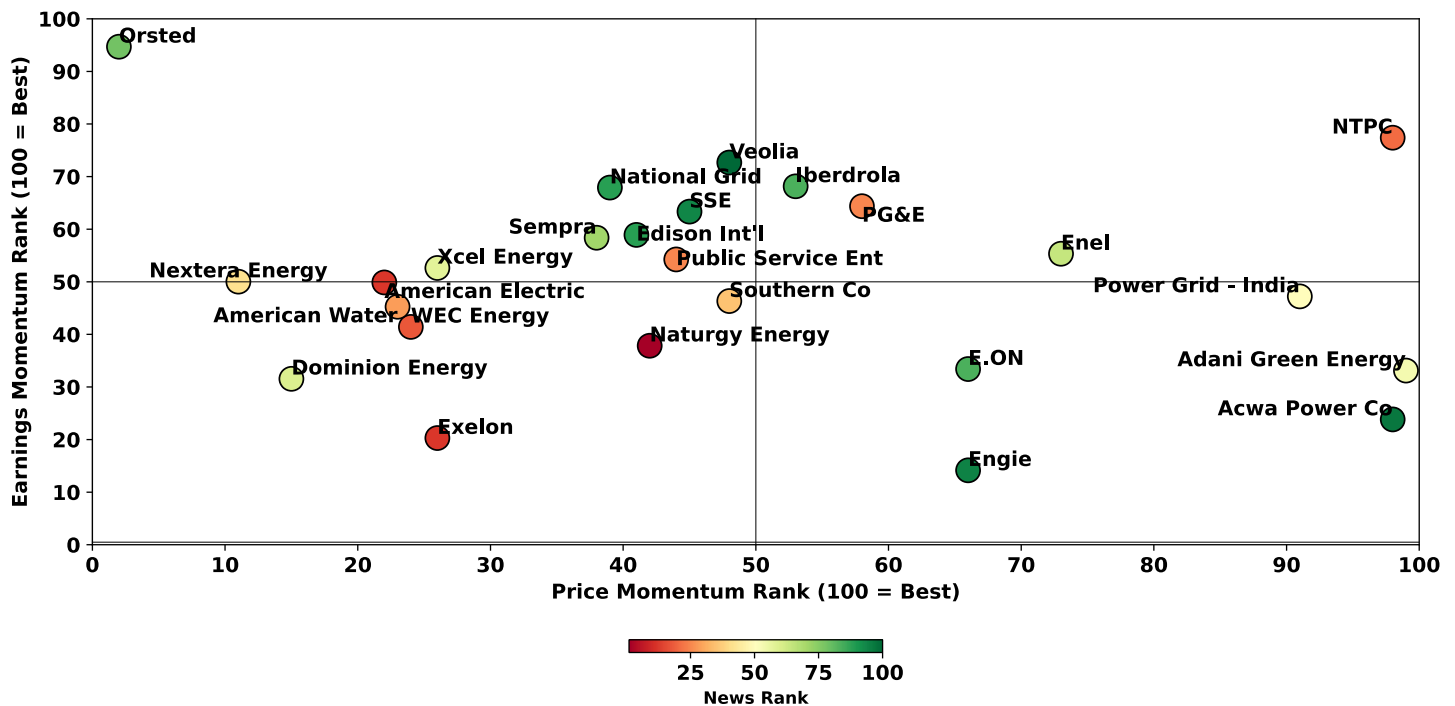


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 98: Utilities: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Iberdrola and Enel



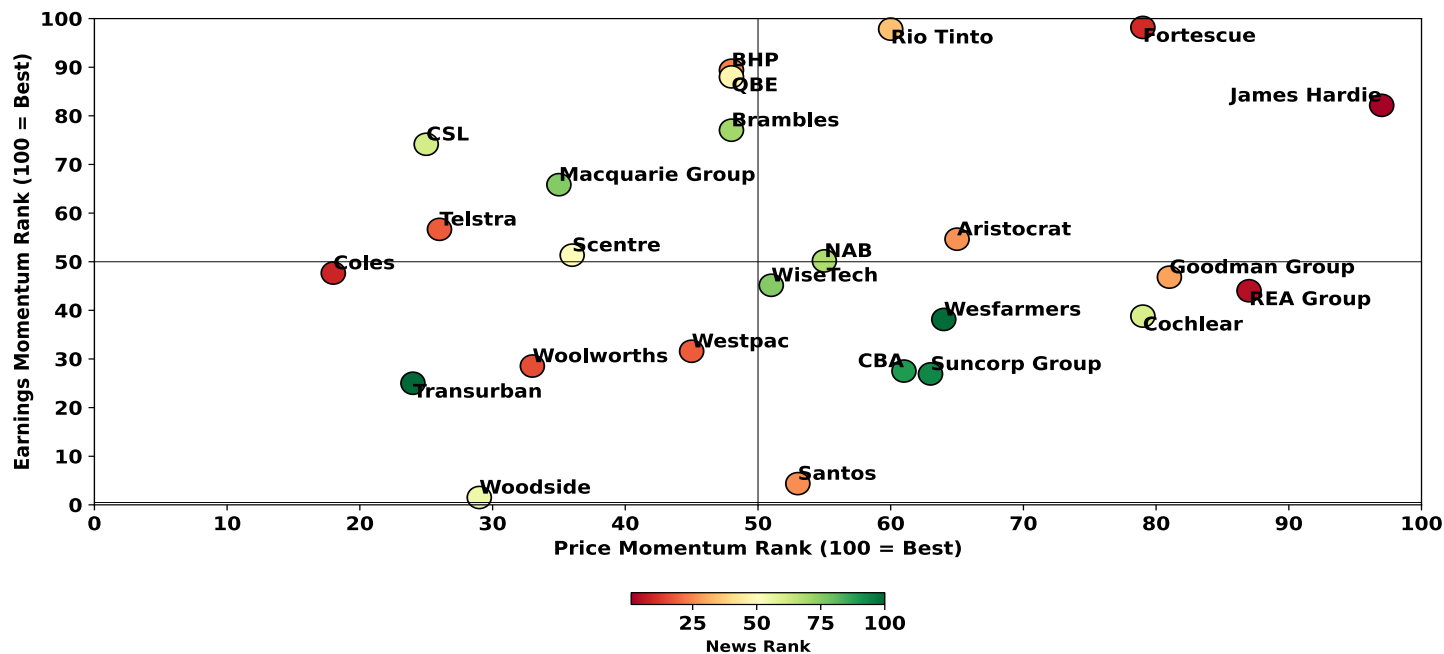
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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## Countries: Triple Momentum Charts

**Chart 99: Australia: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for NAB

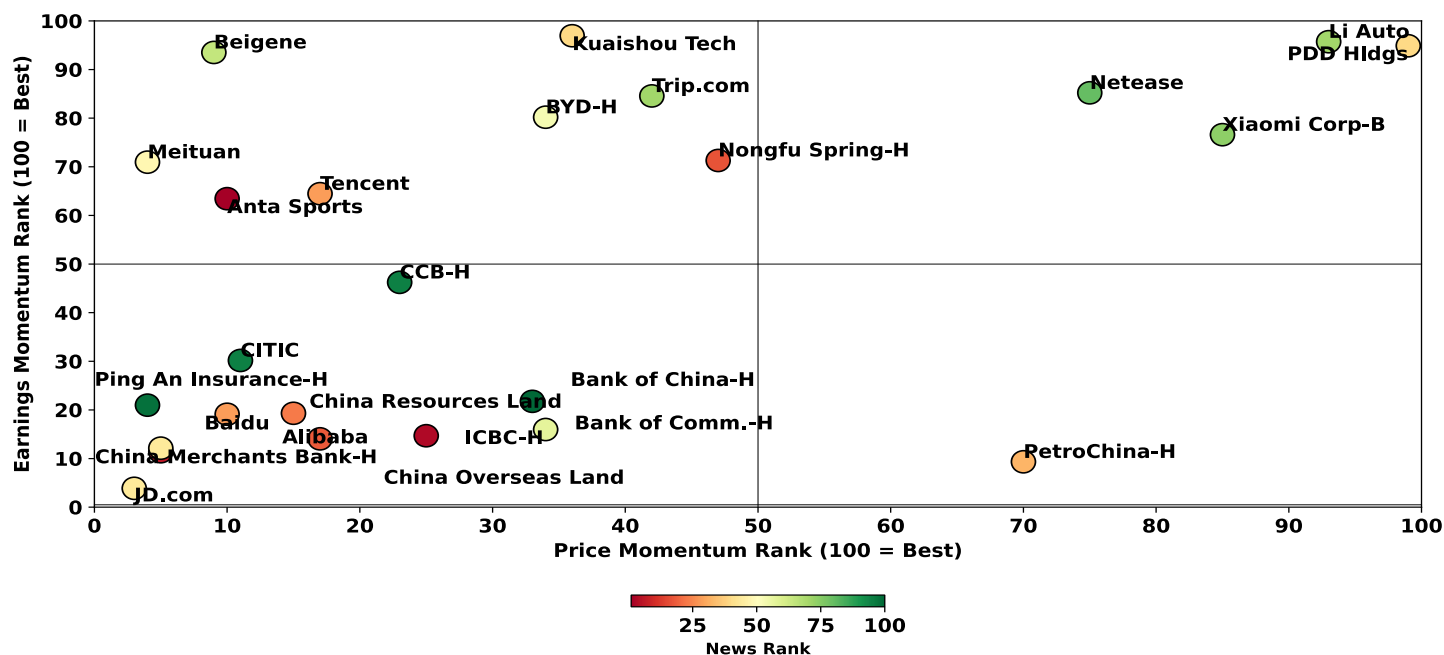


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 100: China: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Netease, Li Auto and Xiaomi Corp-B

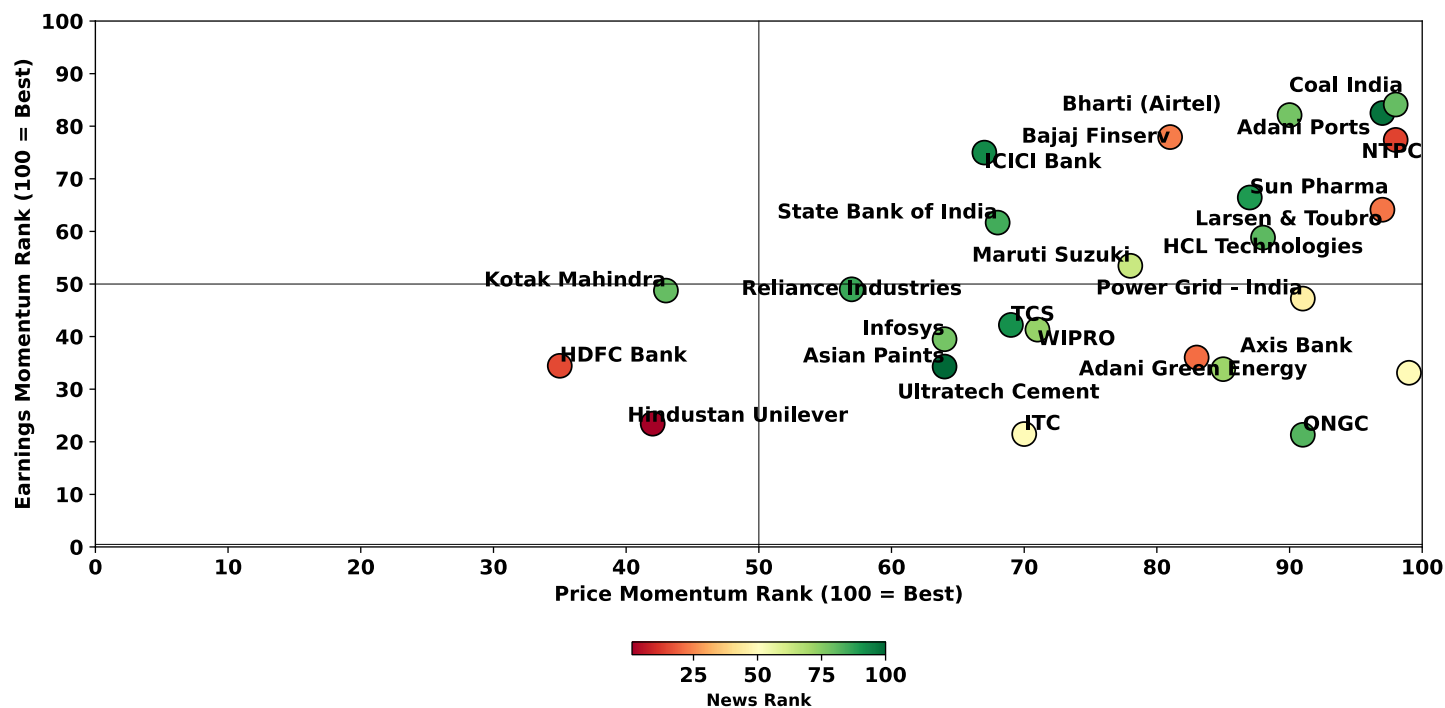


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Chart 101: India: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)**

Triple Momentum is most positive for Adani Ports, Coal India and Sun Pharma



Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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## Global Triple Momentum screens

**Table 6: Global Positive Triple Momentum - Top stocks by Triple Momentum rank**

Top Global stocks with Triple Momentum ranks

Company Name	BBG Code	Country	Sector	MCAP (Total \$USm)	Avg Daily TO (6m \$US m)
Bluescope Steel	BSL AU	Australia	Materials	6,879	23.8
Innovent Biologics	1801 HK	China	Health Care	6,582	52.0
AAC Tech	2018 HK	China	Tech Hardware	2,608	16.5
Credit Agricole	ACA FP	France	Banks	43,323	59.2
MunichRe	MUV2 GR	Germany	Insurance	57,624	111.3
Talanx	TLX GR	Germany	Insurance	18,201	11.2
Alpha Services	ALPHA GA	Greece	Banks	4,407	11.1
Mytilineos	MYTIL GA	Greece	Industrials	5,890	7.7
Chinasoft Int'l	354 HK	Hong Kong	Software	1,653	13.8
Hero Motor	HMCL IN	India	Cons. Discretionary	11,370	28.6
Indian Oil	IOCL IN	India	Energy	27,740	32.4
Aurobindo Pharma	ARBP IN	India	Health Care	7,537	25.0
Adani Ports	ADSEZ IN	India	Industrials	32,133	82.1
Jindal Steel	ISP IN	India	Materials	9,546	18.0
Macrotech Developers	LODHA IN	India	Real Estate	12,964	16.2
Gail India	GAIL IN	India	Utilities	14,105	35.8
Aisin	7259 JP	Japan	Cons. Discretionary	10,458	31.2
Tokio Marine	8766 JP	Japan	Insurance	51,268	108.1
Hulic Co	3003 JP	Japan	Real Estate	8,398	15.5
Advantest	6857 JP	Japan	Semiconductors	31,711	396.2
Inbursa	GFINBURO MM	Mexico	Banks	18,026	5.7
Cemex SAB	CEMEXCPO MM	Mexico	Materials	13,007	35.0
Budimex	BDX PW	Poland	Industrials	4,321	5.7
Sembcorp Ind	SCI SP	Singapore	Utilities	7,723	19.7
Kumba Iron Ore	KIO SJ	South Africa	Materials	9,708	6.8
Hankook Tire & Tech	161390 KS	South Korea	Cons. Discretionary	4,758	8.5
Ecopro	086520 KS	South Korea	Industrials	11,053	381.8
Hanwha Aerospace	012450 KS	South Korea	Industrials	5,061	43.8
HD Korea Shipbuilding	009540 KS	South Korea	Industrials	6,373	14.6
Hyundai Heavy Industries	329180 KS	South Korea	Industrials	7,645	8.9
Sandoz	SDZ SW	Switzerland	Health Care	14,236	67.9
Asustek	2357 TT	Taiwan	Tech Hardware	10,827	73.3
Gigabyte Tech	2376 TT	Taiwan	Tech Hardware	6,782	221.0
Quanta	2382 TT	Taiwan	Tech Hardware	31,308	393.6
Wistron	3231 TT	Taiwan	Tech Hardware	11,148	347.5
Wiwynn	6669 TT	Taiwan	Tech Hardware	12,939	158.2
3i Group	III LN	United Kingdom	Div Financials	28,977	35.1
M&G Plc	MNG LN	United Kingdom	Div Financials	6,593	9.9
Rolls-Royce	RR/ LN	United Kingdom	Industrials	33,047	51.5
Doordash	DASH US	United States	Cons. Discretionary	40,058	345.9
Uber	UBER US	United States	Industrials	139,103	1316.4
Allstate	ALL US	United States	Insurance	41,164	201.0
Snap Inc-A	SNAP US	United States	Media & Ent.	23,335	283.5
GoDaddy	GDDY US	United States	Software	15,807	149.3
Uipath - Class A	PATH US	United States	Software	11,352	167.0

Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Table 7: Global Negative Triple Momentum - Bottom stocks by Triple Momentum rank**

Bottom Global stocks with Triple Momentum ranks

Company Name	BBG Code	Country	Sector	MCAP (Total \$USm)	Avg Daily TO (6m \$US m)
IGO	IGO AU	Australia	Materials	3,599	36.6
Pilbara Minerals	PLS AU	Australia	Materials	6,965	99.1
Mirvac	MGR AU	Australia	Real Estate	5,556	21.9
Umicore	UMI BB	Belgium	Materials	5,462	11.0
First Quantum	FM CN	Canada	Materials	6,390	64.1
Pan American Silver	PAAS CN	Canada	Materials	4,974	13.4
East Buy	1797 HK	China	Cons. Discretionary	3,146	48.8
China Feihe	6186 HK	China	Cons. Staples	4,140	7.8
Shandong Weigao-H	1066 HK	China	Health Care	2,949	7.0
China Overseas Land	688 HK	China	Real Estate	16,459	32.2
China Vanke-H	2202 HK	China	Real Estate	1,727	21.8
Yuexiu Property	123 HK	China	Real Estate	2,594	9.0
China Gas	384 HK	China	Utilities	4,866	6.8
Guangdong Invest.	270 HK	China	Utilities	3,679	7.7
Puma Se	PUM GR	Germany	Cons. Discretionary	6,266	27.2
Bayer	BAYN GR	Germany	Health Care	30,446	139.4
Wacker Chemie	WCH GR	Germany	Materials	5,741	12.0
MTR	66 HK	Hong Kong	Industrials	20,353	10.7
Xinyi Glass	868 HK	Hong Kong	Industrials	3,407	8.2
Hang Lung Prop	101 HK	Hong Kong	Real Estate	5,253	7.3
Bank of Ireland	BIRG ID	Ireland	Banks	9,412	15.2
ICL	ICL IT	Israel	Materials	5,905	9.9
Yamaha	7951 JP	Japan	Cons. Discretionary	4,084	25.2
Shiseido	4911 JP	Japan	Cons. Staples	11,107	95.1
Nippon Building Fund	8951 JP	Japan	Real Estate	6,860	15.2
Saudi Kayan Petro	KAYAN AB	Saudi Arabia	Materials	3,648	5.9
LG H&H	051900 KS	South Korea	Cons. Staples	3,708	22.8
L&F	066970 KS	South Korea	Industrials	3,990	91.5
NCSOFT	036570 KS	South Korea	Media & Ent.	3,386	24.3
Samsung SDI	006400 KS	South Korea	Tech Hardware	20,433	107.1
Enagas	ENG SM	Spain	Utilities	4,214	14.0
Getinge	GETIB SS	Sweden	Health Care	4,794	14.9
Boliden	BOL SS	Sweden	Materials	7,051	31.3
Julius Baer	BAER SW	Switzerland	Div Financials	11,478	31.7
Clariant	CLN SW	Switzerland	Materials	4,203	10.6
SIG Group	SIGN SW	Switzerland	Materials	7,989	17.6
Momo.com	8454 TT	Taiwan	Cons. Discretionary	3,376	8.7
Burberry	BRBY LN	United Kingdom	Cons. Discretionary	5,900	24.3
Pepco Group Nv	PCO PW	United Kingdom	Cons. Discretionary	3,282	8.7
Archer Daniels	ADM US	United States	Cons. Staples	29,856	267.5
APA Corp	APA US	United States	Energy	9,292	159.3
Humana	HUM US	United States	Health Care	46,945	674.2
Pfizer	PFE US	United States	Health Care	152,046	1079.8
UPS	UPS US	United States	Industrials	102,597	568.8
Albemarle	ALB US	United States	Materials	13,407	377.6

Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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## Asia Pace ex-Japan Triple Momentum screens

**Table 8: APxJ Positive Triple Momentum - Top 30 stocks by Triple Momentum rank**

Top 30 APxJ stocks with Triple Momentum ranks

Company Name	BBG Code	Country	Sector	MCAP (Total \$USm)	Avg Daily TO (6m \$US m)
Bluescope Steel	BSL AU	Australia	Materials	6,879	23.8
Northern Star Res.	NST AU	Australia	Materials	10,429	39.5
Stockland	SGP AU	Australia	Real Estate	7,065	23.9
Hansoh Pharma	3692 HK	China	Health Care	8,634	11.1
AAC Tech	2018 HK	China	Tech Hardware	2,608	16.5
Hero Motor	HMCL IN	India	Cons. Discretionary	11,370	28.6
Indian Oil	IOCL IN	India	Energy	27,740	32.4
Aurobindo Pharma	ARBP IN	India	Health Care	7,537	25.0
Torrent Pharma	TRP IN	India	Health Care	10,308	9.2
Adani Ports	ADSEZ IN	India	Industrials	32,133	82.1
Jindal Steel	JSP IN	India	Materials	9,546	18.0
Macrotech Developers	LODHA IN	India	Real Estate	12,964	16.2
Gail India	GAIL IN	India	Utilities	14,105	35.8
Tata Power	TPWR IN	India	Utilities	15,020	61.3
Genting Malaysia	GENM MK	Malaysia	Cons. Discretionary	3,487	4.4
Malaysia Airports	MAHB MK	Malaysia	Industrials	2,795	5.0
MetroBank	MBT PM	Philippines	Banks	4,587	1.8
Jollibee Foods	JFC PM	Philippines	Cons. Discretionary	5,201	2.8
Ayala Corp	AC PM	Philippines	Industrials	7,447	3.1
Sembcorp Ind	SCI SP	Singapore	Utilities	7,723	19.7
Shinhan Financial	055550 KS	South Korea	Banks	17,656	24.6
Coway	021240 KS	South Korea	Cons. Discretionary	3,247	6.0
Hankook Tire & Tech	161390 KS	South Korea	Cons. Discretionary	4,758	8.5
Hanwha Aerospace	012450 KS	South Korea	Industrials	5,061	43.8
HD Korea Shipbuilding	009540 KS	South Korea	Industrials	6,373	14.6
Naver	035420 KS	South Korea	Media & Ent.	27,474	118.8
Nien Made	8464 TT	Taiwan	Cons. Discretionary	3,248	4.7
Asustek	2357 TT	Taiwan	Tech Hardware	10,827	73.3
Largan Precision	3008 TT	Taiwan	Tech Hardware	10,113	59.0
Wiwynn	6669 TT	Taiwan	Tech Hardware	12,939	158.2

**Source :** BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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**Table 9: APxJ Negative Triple Momentum - Bottom 30 stocks by Triple Momentum rank**

Bottom 30 APxJ stocks with Triple Momentum ranks

Company Name	BBG Code	Country	Sector	MCAP (Total \$USm)	Avg Daily TO (6m \$US m)
IGO	IGO AU	Australia	Materials	3,599	36.6
Mineral Resources	MIN AU	Australia	Materials	7,517	44.3
Pilbara Minerals	PLS AU	Australia	Materials	6,965	99.1
Mirvac	MGR AU	Australia	Real Estate	5,556	21.9
East Buy	1797 HK	China	Cons. Discretionary	3,146	48.8
China Feihe	6186 HK	China	Cons. Staples	4,140	7.8
Shandong Weigao-H	1066 HK	China	Health Care	2,949	7.0
China Pacific Insurance-H	2601 HK	China	Insurance	4,983	24.0
China Overseas Land	688 HK	China	Real Estate	16,459	32.2
China Vanke-H	2202 HK	China	Real Estate	1,727	21.8
Longfor	960 HK	China	Real Estate	7,333	34.8
Yuexiu Property	123 HK	China	Real Estate	2,594	9.0
Flat Glass-H	6865 HK	China	Semiconductors	715	10.4
China Gas	384 HK	China	Utilities	4,866	6.8
Guangdong Invest.	270 HK	China	Utilities	3,679	7.7
MTR	66 HK	Hong Kong	Industrials	20,353	10.7
Xinyi Glass	868 HK	Hong Kong	Industrials	3,407	8.2
Hang Lung Prop	101 HK	Hong Kong	Real Estate	5,253	7.3
Petronas Chemicals	PICHEM MK	Malaysia	Materials	11,499	4.5
LG H&H	051900 KS	South Korea	Cons. Staples	3,708	22.8
Glovis	086280 KS	South Korea	Industrials	5,362	8.3
Hyundai Mipo	010620 KS	South Korea	Industrials	2,057	8.7
L&F	066970 KS	South Korea	Industrials	3,990	91.5
NCSOFT	036570 KS	South Korea	Media & Ent.	3,386	24.3
Samsung SDI	006400 KS	South Korea	Tech Hardware	20,433	107.1
Feng Tay	9910 TT	Taiwan	Cons. Discretionary	5,220	9.7
Momo.com	8454 TT	Taiwan	Cons. Discretionary	3,376	8.7
Formosa Petro	6505 TT	Taiwan	Energy	23,194	4.6
Home Product Center	HMPRO TB	Thailand	Cons. Discretionary	3,992	8.3
Siam Cement	SCC TB	Thailand	Materials	9,396	14.6

Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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