

## High Frequency Monitor

### Improving market breadth

## Global equities rallied as market breadth improved

Global equity markets rallied last week [\(+0.3%\)](#) and have now rallied for 14 of 16 weeks by a total 19.2%. Despite US Tech weighing on the US market (-0.4%), an MSCI China rally [\(+3.7%\)](#) on stronger Chinese New Year travel and tourism spending data propelled Emerging Markets (+2.1%). Less negative sentiment on China supported the global [Materials](#) sector, and higher bond yields supported Financials. Encouragingly, market breadth improved to [49% as more stocks](#) outperformed the MSCI AC World Index than over the last 12 months (26%). Our [Global Inflation News Pulse](#) suggests inflation may continue trending lower. Coupled with positive trends in economic data, policy, and earnings, the outlook for global equity market performance remains positive.

## Short-term Tactical Indicators remain positive

Higher frequency data across multiple asset classes supports a positive view on equities. Our [short-term Tactical Indicators](#) remain positive based on a rally in copper, an appreciating AUD, narrowing credit spreads, and a bounce in the cyclical “Cycle Sensitives”. Additionally, our 30-day [Global News Pulse](#) jumped from 10% to 15%.

## Triple Momentum = Software, Insurance, Div Financials

**Triple Momentum** (earnings, price, news) is most positive for global Software, Insurance, and Diversified Financials and most negative for Consumer Staples, Materials, and Energy. By country, Triple Momentum is strongest for India and weakest for Hong Kong.

### Chart 1: 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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**19 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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# Contents

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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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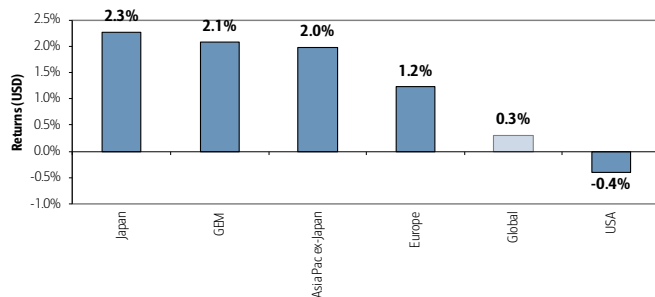
The Global News Pulse (and the regional and sectors versions of it) is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This News Pulse was not created to act as a benchmark.



# Market Performance

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

Last week: Japan performed the best

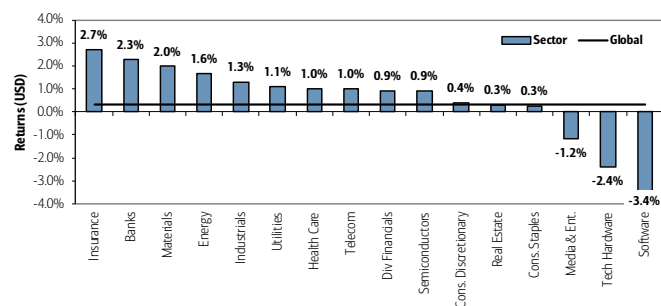


Source : BofA Global Quantitative Strategy, MSCI

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

Insurance was the best performing sector last week

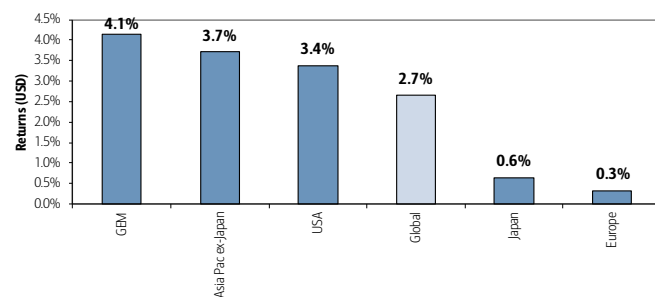


Source : BofA Global Quantitative Strategy, MSCI

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

MTD: GEM performed the best

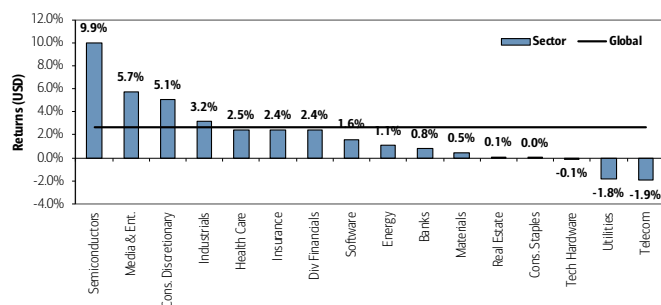


Source : BofA Global Quantitative Strategy, MSCI

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

MTD: Semiconductors has performed the best

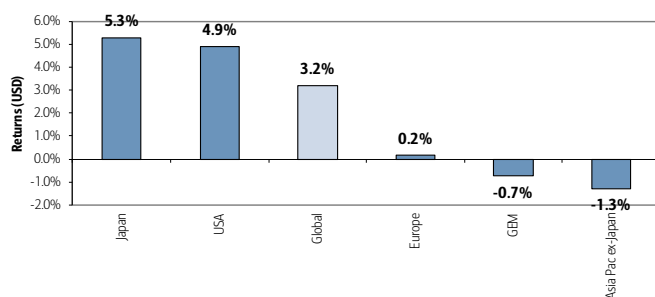


Source : BofA Global Quantitative Strategy, MSCI

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

YTD: Japan performed the best

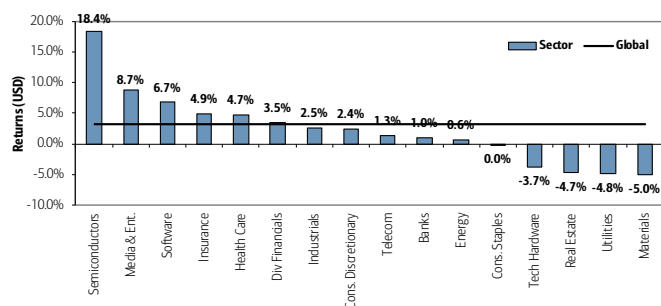


Source : BofA Global Quantitative Strategy, MSCI

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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**

Insurance was the best performing sector last week

	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	2.8%	1.5%	0.9%	0.9%	1.6%	n/a	1.1%	-0.6%	5.5%	-1.5%	n/a	n/a	0.3%	n/a	1.9%	0.3%	0.9%
USA	2.2%	2.4%	0.8%	-0.7%	0.2%	1.0%	3.0%	0.9%	1.7%	-3.7%	-3.1%	0.0%	0.8%	-1.7%	1.4%	-0.2%	-0.4%
Belgium	n/a	1.6%	n/a	-5.1%	-3.6%	-1.1%	3.9%	1.1%	3.0%	n/a	n/a	n/a	n/a	n/a	0.8%	-0.1%	-1.0%
Finland	1.1%	-0.9%	4.4%	n/a	2.6%	-6.5%	4.0%	n/a	3.9%	n/a	-1.8%	n/a	3.6%	n/a	-0.7%	n/a	1.9%
France	0.1%	1.3%	1.0%	1.4%	3.5%	0.0%	1.3%	0.6%	3.2%	1.8%	n/a	-0.5%	2.2%	0.8%	0.6%	-0.9%	1.2%
Germany	n/a	3.7%	2.7%	2.8%	-0.8%	2.2%	3.9%	1.4%	1.5%	-2.1%	n/a	-0.7%	0.0%	1.9%	-2.0%	1.7%	1.3%
Italy	-0.5%	n/a	6.3%	3.2%	0.9%	1.4%	1.3%	0.6%	2.2%	n/a	n/a	n/a	1.2%	n/a	0.2%	n/a	1.7%
Netherlands	n/a	6.3%	0.6%	-1.7%	-1.6%	-0.7%	3.9%	2.5%	1.3%	n/a	n/a	-0.2%	2.3%	-2.1%	n/a	n/a	0.3%
Norway	-3.4%	0.0%	9.7%	n/a	4.9%	n/a	3.1%	n/a	3.6%	n/a	n/a	n/a	0.6%	2.4%	n/a	n/a	1.1%
Spain	-1.6%	n/a	-0.8%	-1.0%	n/a	3.5%	-0.7%	n/a	n/a	n/a	n/a	n/a	0.1%	n/a	0.3%	n/a	-0.5%
Sweden	n/a	1.6%	2.8%	0.7%	0.7%	2.4%	3.7%	2.9%	n/a	n/a	-0.5%	n/a	1.3%	n/a	n/a	3.4%	2.4%
Switzerland	n/a	3.5%	3.1%	1.8%	1.0%	0.6%	-0.2%	1.0%	1.9%	-32.2%	1.7%	n/a	1.6%	n/a	0.9%	-0.1%	1.3%
UK	-0.6%	3.6%	1.6%	-0.1%	0.2%	2.2%	4.3%	1.0%	3.2%	-1.5%	1.5%	n/a	2.9%	1.0%	2.0%	1.6%	1.5%
Australia	-1.9%	-0.9%	1.9%	5.7%	1.5%	-4.7%	1.2%	0.5%	-1.5%	4.6%	n/a	n/a	-2.9%	-0.6%	1.7%	3.1%	0.2%
Hong Kong	n/a	n/a	2.2%	6.8%	3.3%	n/a	4.2%	4.1%	2.4%	n/a	n/a	n/a	-2.5%	n/a	0.4%	2.3%	2.6%
Japan	3.4%	2.1%	2.7%	0.5%	-2.2%	2.5%	3.3%	2.0%	11.6%	1.0%	2.1%	7.7%	1.9%	1.9%	1.1%	-1.6%	2.3%
Singapore	n/a	n/a	4.2%	2.0%	3.9%	n/a	3.5%	2.3%	n/a	n/a	n/a	n/a	1.7%	3.4%	5.1%	1.1%	3.1%
China	0.6%	1.1%	1.6%	6.5%	3.2%	2.6%	2.5%	1.9%	4.3%	3.0%	4.5%	2.2%	-0.9%	2.7%	1.0%	6.1%	3.7%
India	1.2%	-0.4%	2.1%	4.0%	-0.1%	0.4%	1.0%	0.5%	2.1%	1.8%	n/a	n/a	0.2%	-4.0%	1.4%	1.9%	1.3%
Korea	3.0%	1.9%	1.4%	1.1%	0.8%	-0.1%	-0.2%	3.7%	-5.2%	1.7%	-1.6%	2.0%	1.7%	3.2%	2.9%	n/a	0.2%
Taiwan	-0.7%	0.2%	0.5%	1.1%	0.2%	1.8%	0.5%	-0.6%	1.5%	n/a	1.2%	n/a	0.2%	n/a	n/a	1.3%	3.2%
Brazil	3.6%	2.4%	-1.2%	-1.8%	-0.9%	-0.9%	0.6%	-3.5%	-0.4%	0.7%	n/a	n/a	-3.3%	n/a	-0.8%	n/a	0.7%
Mexico	n/a	1.6%	-2.3%	n/a	-3.8%	n/a	1.9%	n/a	n/a	n/a	n/a	n/a	6.1%	n/a	n/a	n/a	-0.5%
South Africa	3.4%	1.8%	0.7%	-1.9%	-0.5%	n/a	3.7%	0.2%	0.8%	n/a	n/a	n/a	0.0%	n/a	n/a	n/a	0.9%
Global Sector	1.6%	2.0%	1.3%	0.4%	0.3%	1.0%	2.3%	0.9%	2.7%	-3.4%	-2.4%	0.9%	1.0%	-1.2%	1.1%	0.3%	0.3%
Europe Sector	-0.4%	3.1%	1.7%	1.3%	0.6%	1.3%	2.4%	1.4%	2.2%	-1.9%	-0.2%	-0.3%	1.0%	0.3%	-4.0%	1.0%	1.2%
APxJ Sector	0.5%	-0.1%	1.6%	5.2%	1.4%	-1.0%	1.7%	1.4%	1.6%	2.1%	0.0%	4.7%	0.4%	2.6%	1.1%	2.7%	2.0%
GEM Sector	2.1%	1.3%	1.1%	4.6%	0.1%	1.0%	1.7%	0.4%	2.2%	2.1%	0.0%	4.7%	0.9%	2.7%	0.8%	3.3%	2.1%

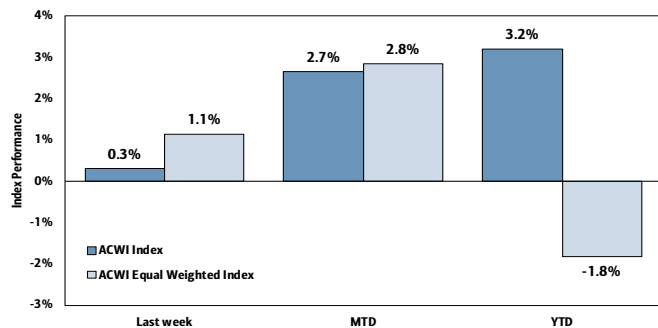
Source : BofA Global Quantitative Strategy, MSCI

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# Market Breadth

**Chart 8: ACWI Market Cap vs. Equal weighted index performance - last week/MTD/YTD**

Last week, ACWI index returned +0.3%, while Equal Weighted index returned +1.1%

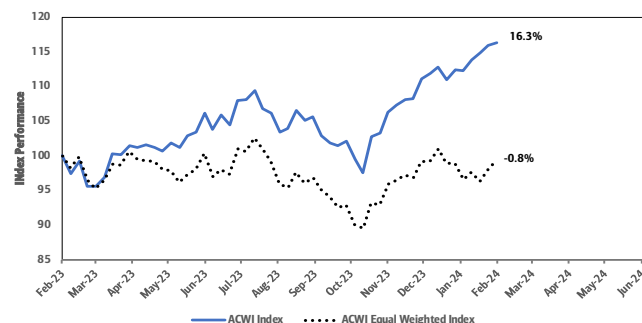


Source : BofA Global Quantitative Strategy, MSCI

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**Chart 9: ACWI Market Cap vs. Equal weighted index performance - last 12 months**

Last 12 months, ACWI index returned +16.3%, while Equal Weighted index returned -0.8%

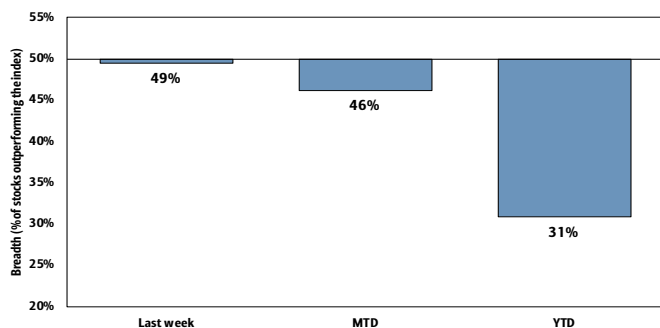


Source : BofA Global Quantitative Strategy, MSCI

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

Last week, 49% of the stocks outperformed the index

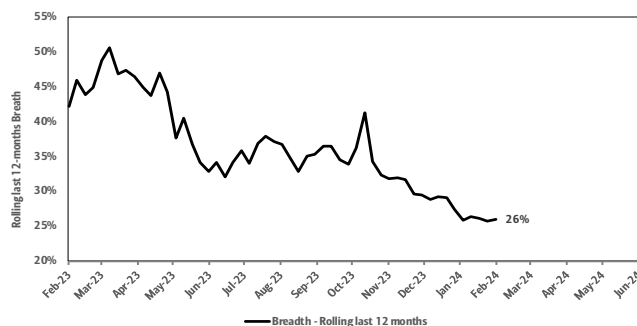


Source : BofA Global Quantitative Strategy, MSCI

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

Last 12 months, only 26% stocks outperformed the index



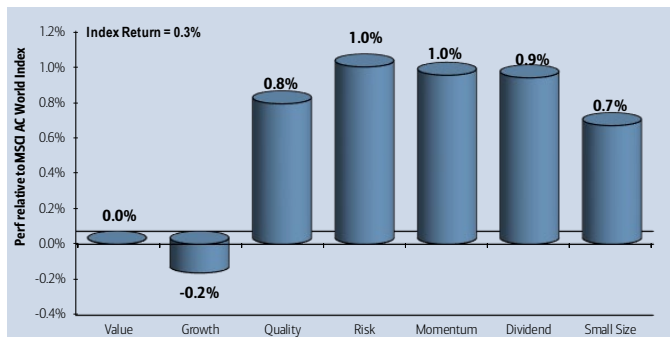
Source : BofA Global Quantitative Strategy, MSCI

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# Style Performance

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

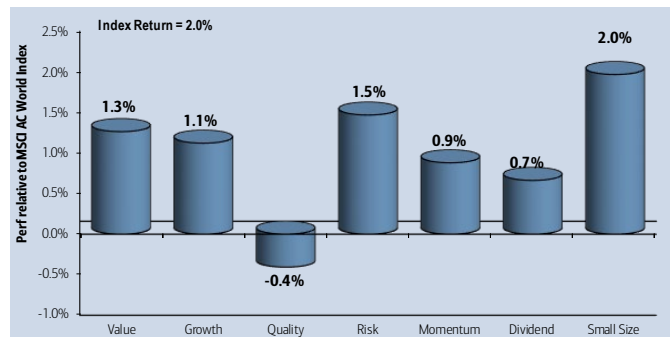
Last week: Risk performed the best



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**

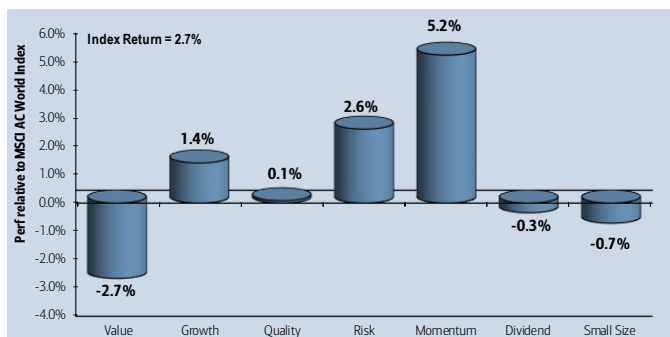
Small Size was the best performing style last week



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
BofA GLOBAL RESEARCH

**Chart 14: Global Quantessential Style Relative Performance: MTD**

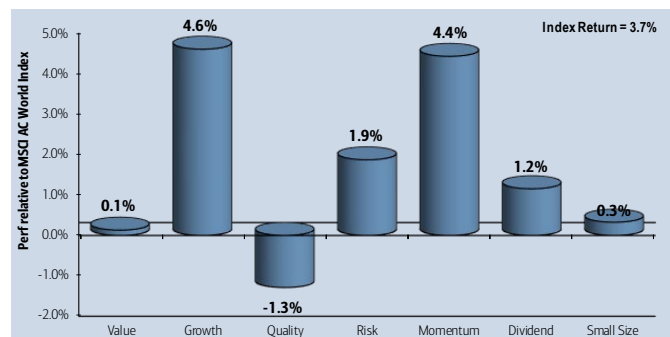
This month the best performing style is Momentum



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
BofA GLOBAL RESEARCH

**Chart 15: Asia Pac Quantessential Style Relative Performance: MTD**

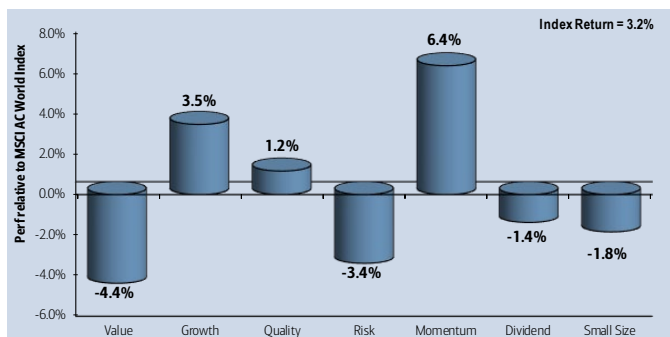
MTD: Growth has performed the best



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
BofA GLOBAL RESEARCH

**Chart 16: Global Quantessential Style Relative Performance: YTD**

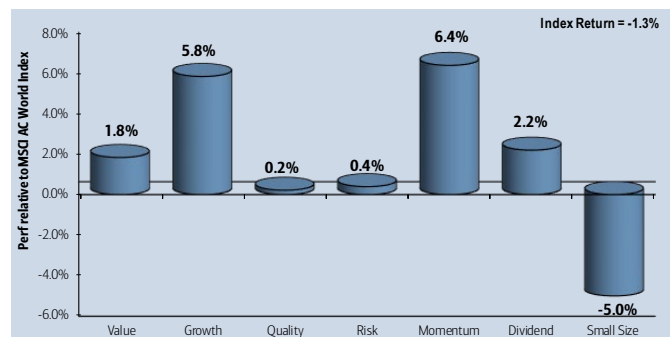
Momentum is the best performing style this year



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

Momentum is the best performing style this year

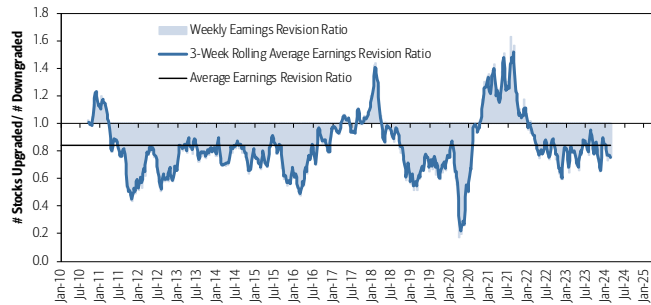


Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
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# Earnings Revision Ratio

**Chart 18: Global Earnings Revision Ratio - Weekly**

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

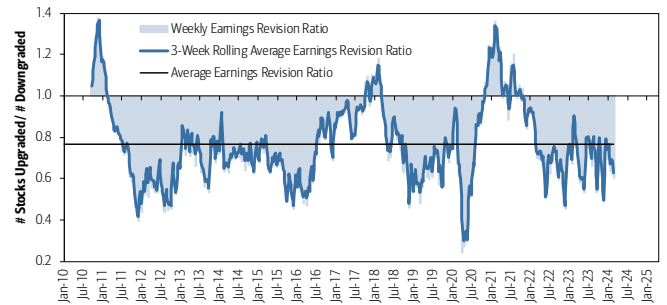


Source : BofA Global Quantitative Strategy, MSCI, IBES

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**Chart 19: Asia Pac Earnings Revision Ratio - Weekly**

Earnings revisions fell in Asia Pac ex-Japan last week

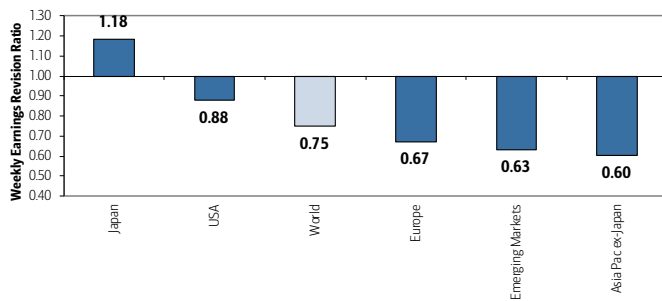


Source : BofA Global Quantitative Strategy, MSCI, IBES

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**Chart 20: Global Regions Earnings Revision Ratio - Weekly**

Japan has the strongest ERR

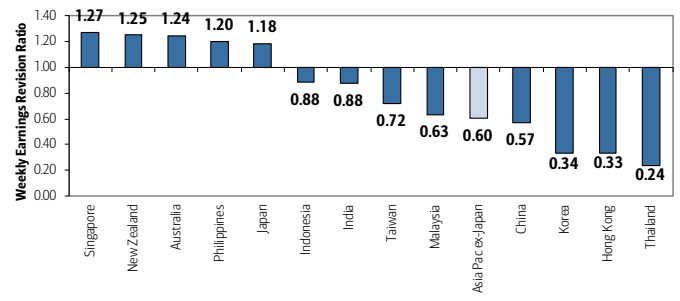


Source : BofA Global Quantitative Strategy, MSCI, IBES

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**Chart 21: Asia Pac Countries Earnings Revision Ratio - Weekly**

Singapore has the strongest earnings revisions in Asia

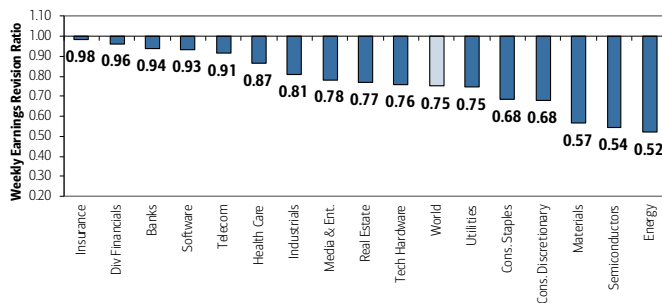


Source : BofA Global Quantitative Strategy, MSCI, IBES

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**Chart 22: Global Sectors Earnings Revision Ratio - Weekly**

Earnings Revision Ratio is strongest in Insurance sector globally

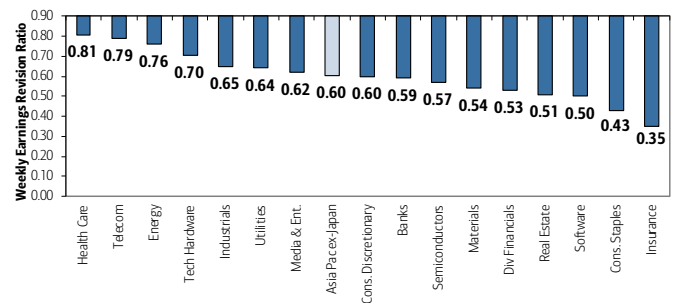


Source : BofA Global Quantitative Strategy, MSCI, IBES

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**Chart 23: Asia Pac 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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**Table 2: Global Region/Sector/Style - Earnings Revision Ratio**

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

Regions/Sectors	Nov-23	Dec-23	Jan-24	Feb-24 - Wk1	Feb-24 - Wk2	Feb-24 - Wk3	Feb-24 - Wk4
World	0.66	0.82	0.73	0.81	0.76	0.74	0.75
USA	0.72	0.93	0.84	0.87	0.84	0.86	0.88
Europe	0.73	0.70	0.65	0.64	0.62	0.65	0.67
Japan	1.05	1.25	0.99	1.00	1.07	1.15	1.18
Asia Pac ex-Japan	0.49	0.69	0.63	0.78	0.66	0.62	0.60
Emerging Markets	0.55	0.74	0.67	0.79	0.71	0.65	0.63
Global - Banks	0.94	1.03	0.93	0.96	0.92	0.83	0.94
Global - Cons. Discretionary	0.73	0.82	0.81	0.68	0.69	0.68	0.68
Global - Cons. Staples	0.61	0.75	0.59	0.78	0.76	0.70	0.68
Global - Div Financials	0.57	1.11	0.97	0.93	0.86	0.92	0.96
Global - Energy	1.31	0.59	0.46	0.50	0.55	0.48	0.52
Global - Health Care	0.58	0.81	0.72	0.85	0.81	0.86	0.87
Global - Industrials	0.70	0.90	0.77	0.76	0.80	0.79	0.81
Global - Insurance	1.33	1.16	0.86	1.05	0.85	0.88	0.98
Global - Materials	0.34	0.66	0.55	0.73	0.59	0.58	0.57
Global - Media & Ent.	0.57	0.76	0.70	1.01	0.95	0.98	0.78
Global - Real Estate	0.68	0.73	0.77	0.99	0.89	0.83	0.77
Global - Semiconductors	0.41	0.79	0.57	0.85	0.68	0.58	0.54
Global - Software	0.81	0.93	0.90	0.89	0.72	0.82	0.93
Global - Tech Hardware	0.54	0.67	0.74	0.99	0.79	0.81	0.76
Global - Telecom	0.81	0.76	1.05	0.98	0.91	0.89	0.91
Global - Utilities	0.76	0.95	0.77	0.80	0.80	0.70	0.75
Global - Value	0.73	0.90	0.71	0.72	0.63	0.60	0.75
Global - Growth	1.13	1.19	1.05	0.99	1.20	1.13	1.09
Global - Quality	0.77	1.11	1.03	0.98	0.96	0.91	0.90
Global - Risk	0.70	0.74	0.66	0.71	0.73	0.72	0.71
Global - Momentum	1.42	1.56	1.47	1.16	1.46	1.46	1.54
Global - Dividend	0.64	0.69	0.58	0.59	0.52	0.53	0.64
Global - Small Size	0.56	0.67	0.61	0.64	0.53	0.53	0.63

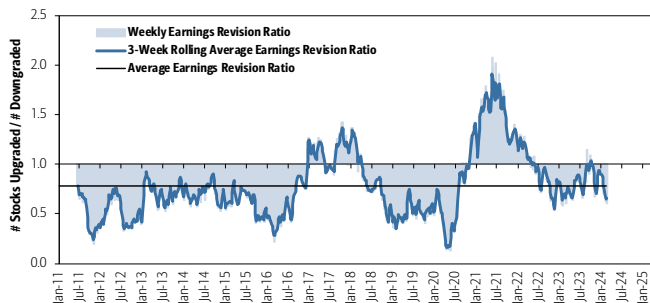
Source : BofA Global Quantitative Strategy, MSCI, IBES

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# Quantessential Styles: Earnings Revision Ratio

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

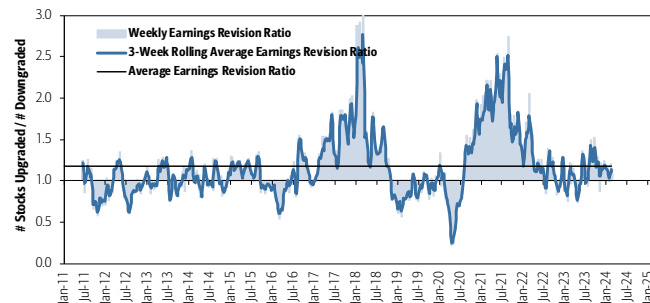
Earnings trend improved in Value in the last three weeks



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
BofA GLOBAL RESEARCH

**Chart 25: Global Growth Earnings Revision Ratio - Weekly**

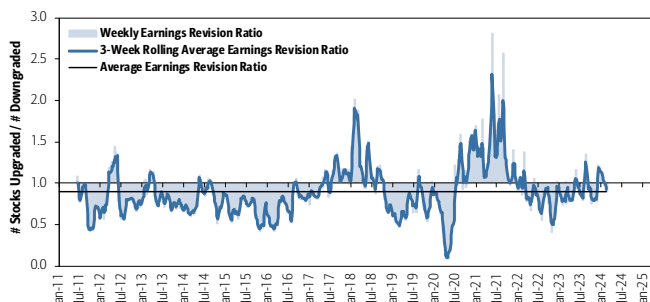
Earnings revisions fell in Growth last week but remains above 1.0



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
BofA GLOBAL RESEARCH

**Chart 26: Global Quality Earnings Revision Ratio - Weekly**

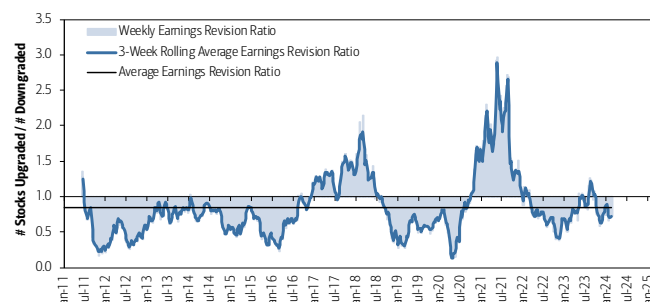
ERR fell in Quality last week and the trend moderated



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

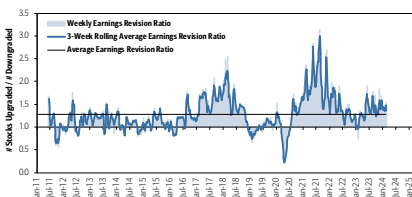
Earnings revisions for Risk fell last week and remains below long term trend



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 in Momentum last week



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

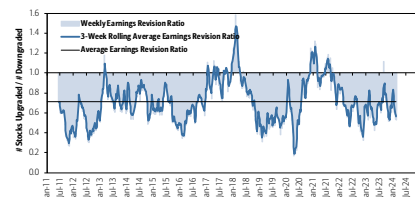
Earnings revisions improved in Dividend last week



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

The trend is weak but earnings revisions improved in Small Size last week

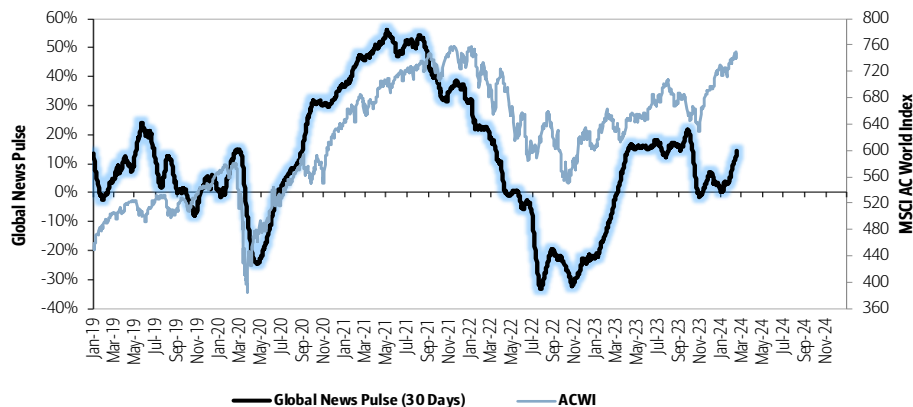


Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg  
BofA GLOBAL RESEARCH

# NewsAlpha

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

Currently there are 15% more stocks with positive news

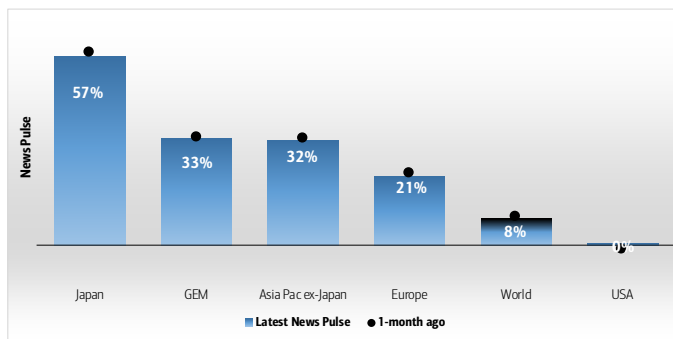


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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

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

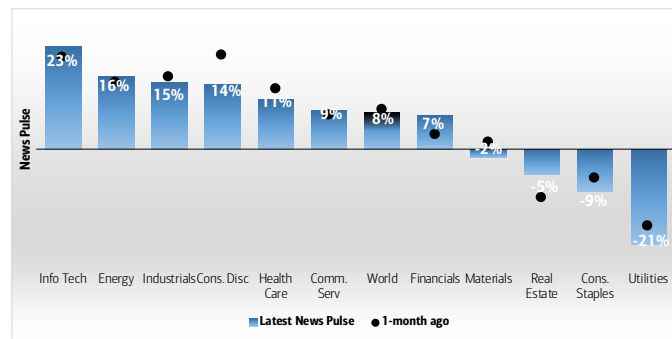


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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

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

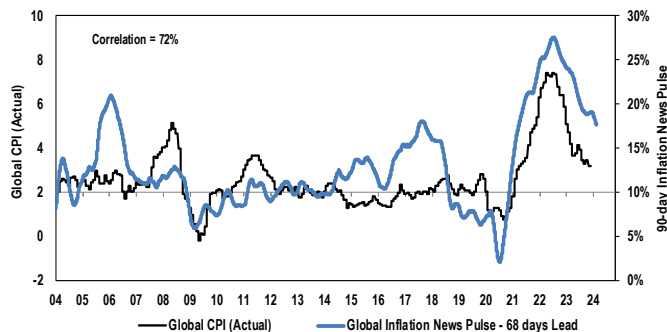


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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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%

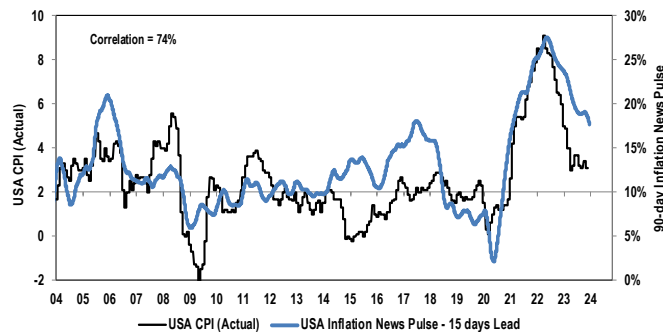


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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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)

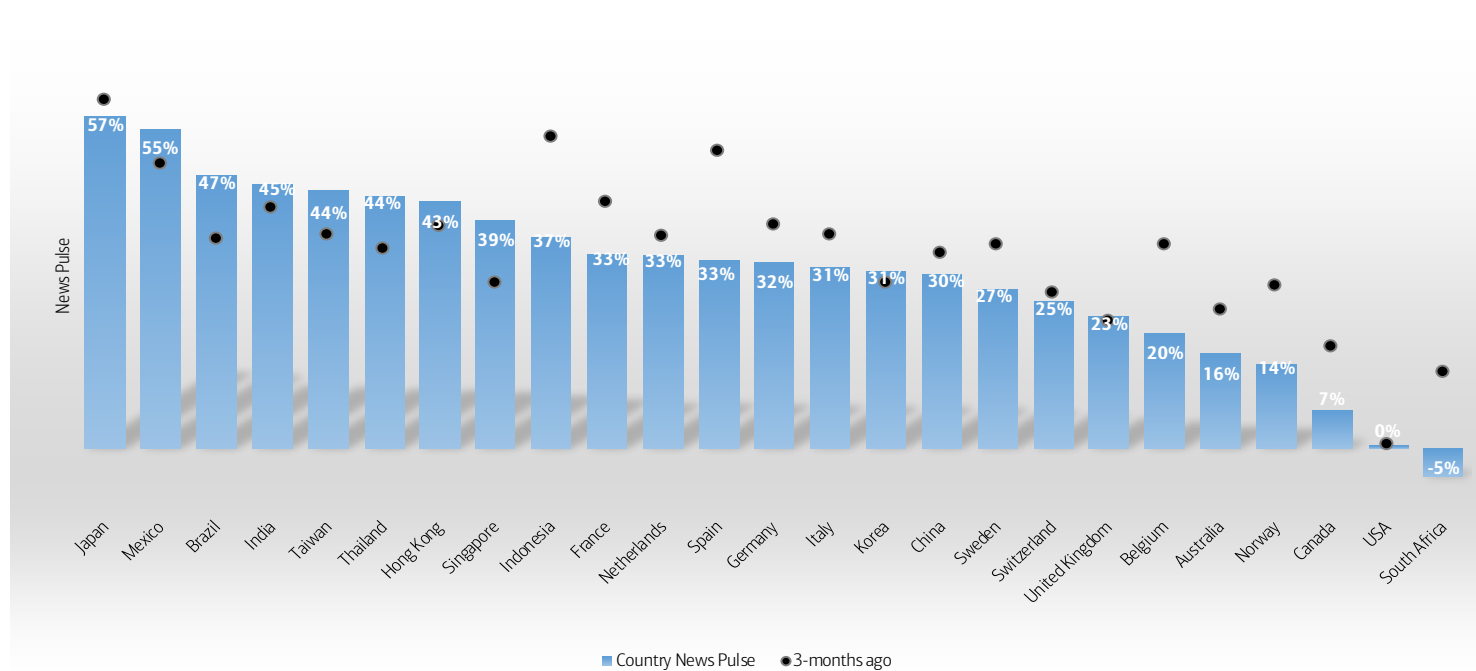


**Source :** BofA Global Quantitative Strategy, RavenPack

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

News aggregate is highest in Japan and Mexico



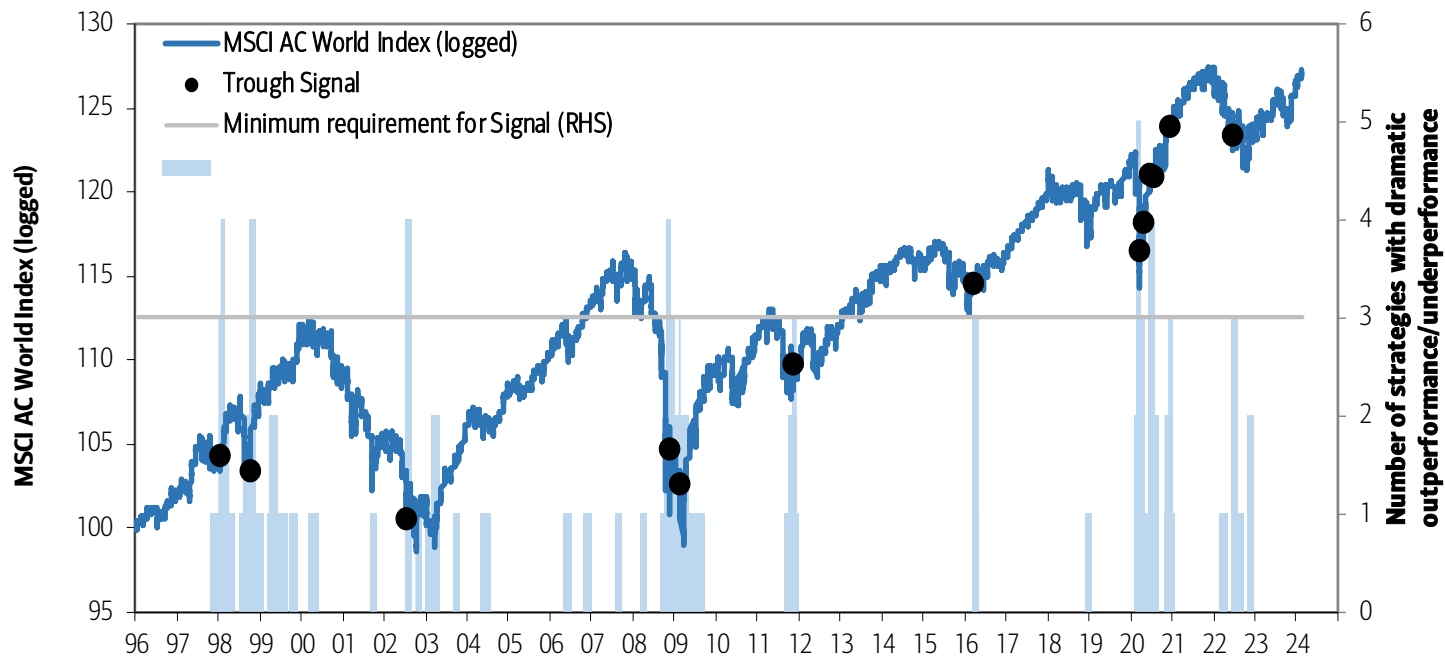
**Source :** BofA Global Quantitative Strategy, MSCI, ExShare, RavenPack

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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

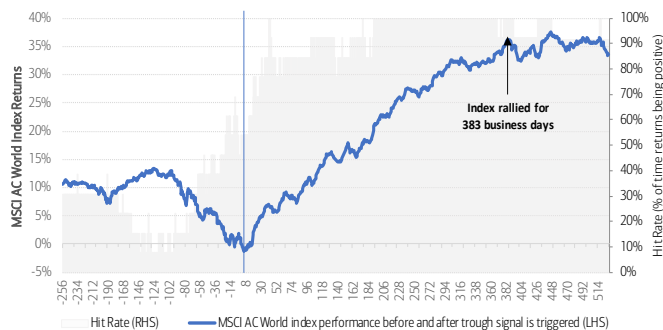


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack, IBES, Worldscope, Exshare, S&P, Bloomberg

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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

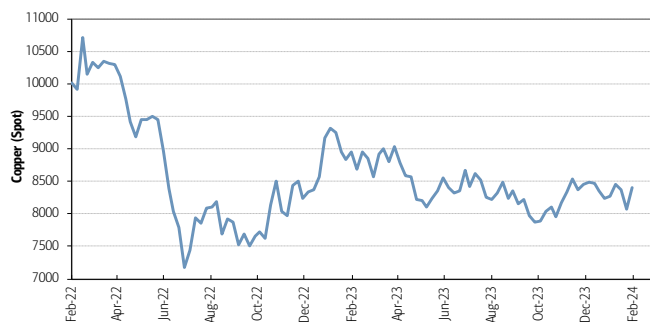
Signal Dates	Subs 1-month MSCI AC World Index returns	Subs 3-months MSCI AC World Index returns	Subs 6-months MSCI AC World Index returns	Subs 1-year MSCI AC World Index returns
24-Jun-22	-0.1%	-8.5%	-1.2%	10.3%
10-Dec-20	4.3%	6.9%	14.3%	17.6%
10-Jul-20	4.1%	9.2%	21.8%	33.6%
8-Jun-20	-0.6%	3.5%	16.0%	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 increased (+4.3%)

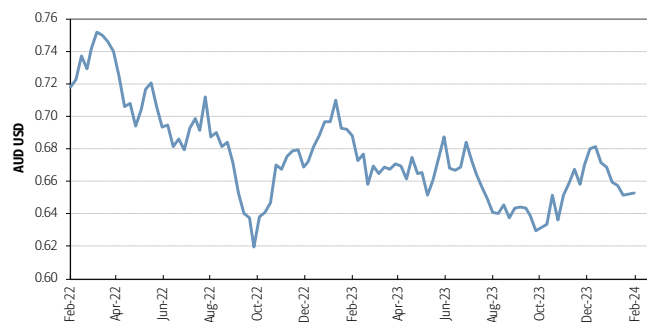


Source : BofA Global Quantitative Strategy, Bloomberg

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

AUD appreciated (+0.1%)

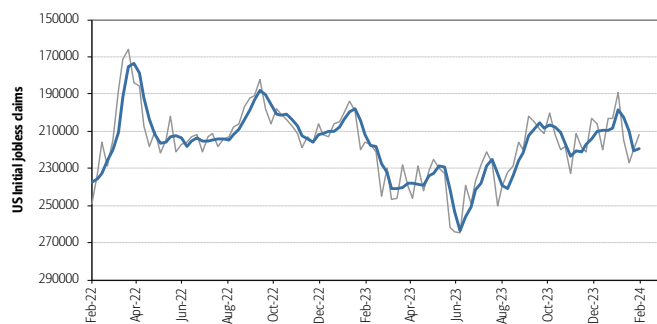


Source : BofA Global Quantitative Strategy, Bloomberg

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

US initial jobless claims fell by -8,000 to 212,000

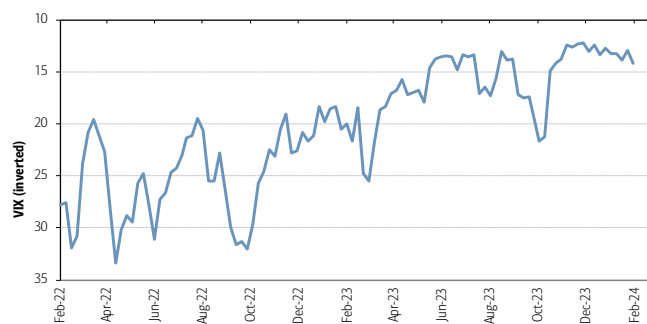


Source : BofA Global Quantitative Strategy, Bloomberg

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

VIX moved from 12.9 to 14.2



Source : BofA Global Quantitative Strategy, Bloomberg

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

Global credit spreads narrowed (-6 bps)

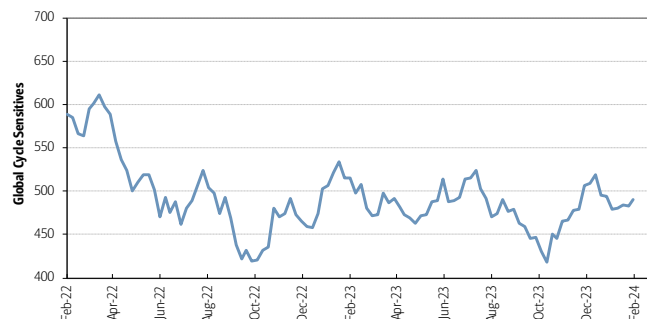


Source : BofA Global Quantitative Strategy, Bloomberg

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

Global Cycle Sensitives outperformed (+1.5%)



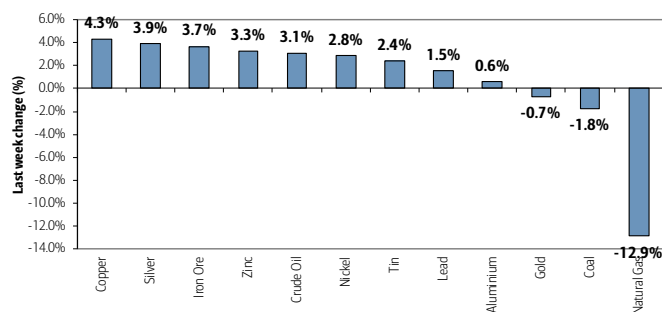
Source : BofA Global Quantitative Strategy, Bloomberg

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# Commodities

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

Copper increased the most last week

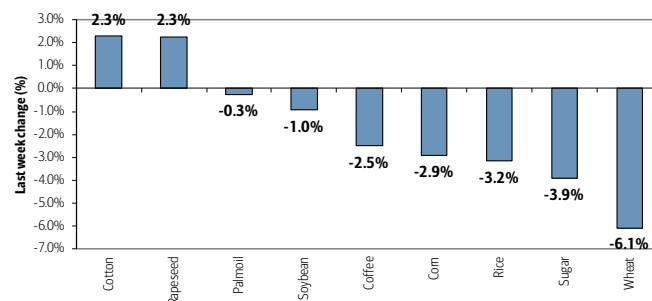


Source : BofA Global Quantitative Strategy, Bloomberg

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

Cotton increased the most last week

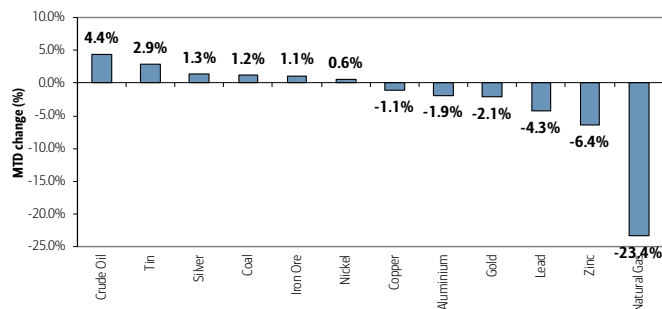


Source : BofA Global Quantitative Strategy, Bloomberg

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

Natural Gas fell the most MTD

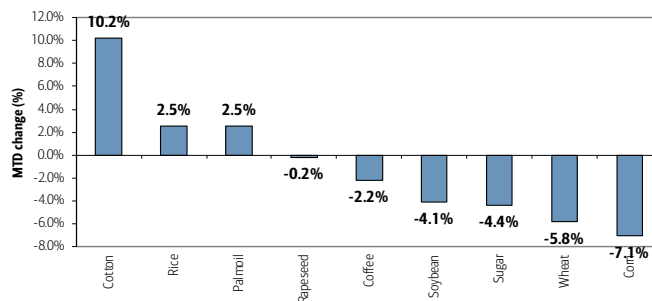


Source : BofA Global Quantitative Strategy, Bloomberg

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

Cotton increased the most MTD

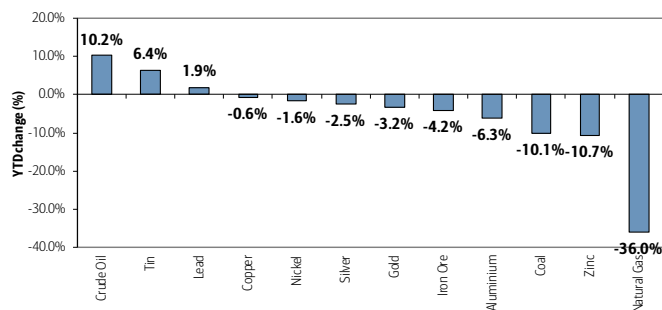


Source : BofA Global Quantitative Strategy, Bloomberg

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

Crude Oil increased the most YTD

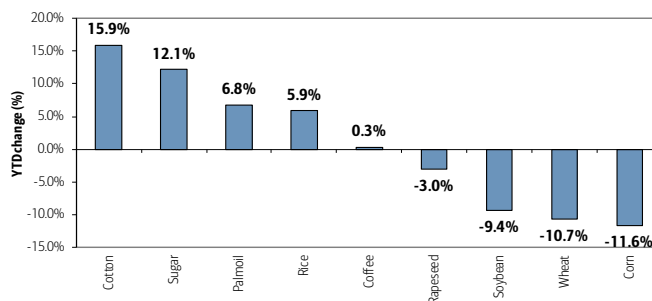


Source : BofA Global Quantitative Strategy, Bloomberg

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

Cotton increased the most YTD



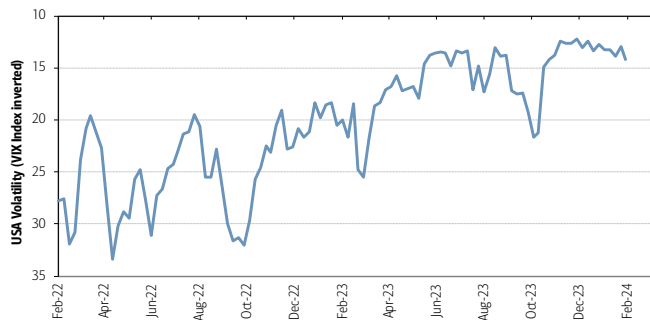
Source : BofA Global Quantitative Strategy, Bloomberg

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# Volatility

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

VIX Index moved from 12.9 to 14.2

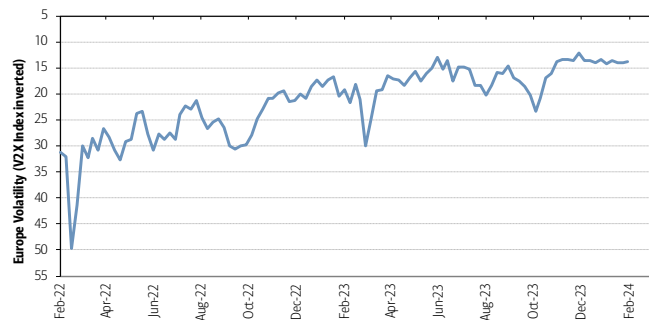


Source : BofA Global Quantitative Strategy, Bloomberg

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

V2X Index moved from 14.0 to 13.8

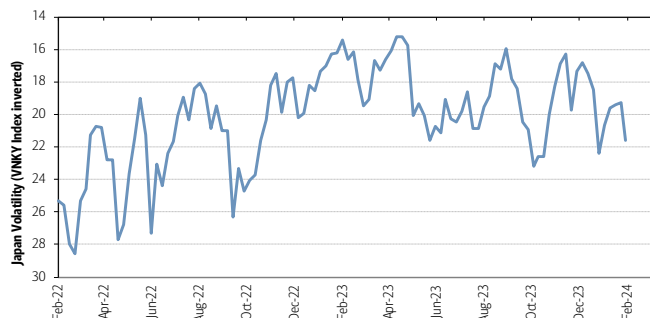


Source : BofA Global Quantitative Strategy, Bloomberg

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

VNKY Index moved from 19.3 to 21.6

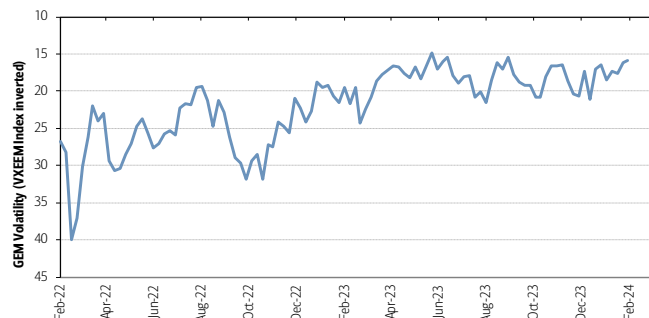


Source : BofA Global Quantitative Strategy, Bloomberg

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

VXEEM Index moved from 16.2 to 15.9



Source : BofA Global Quantitative Strategy, Bloomberg

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

VHSI Index moved from 26.7 to 27.5



Source : BofA Global Quantitative Strategy, Bloomberg

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

VKOSPI Index moved from 16.2 to 17.4



Source : BofA Global Quantitative Strategy, Bloomberg

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# Rates

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

US 10-year yield up by 10 bps to 4.28%

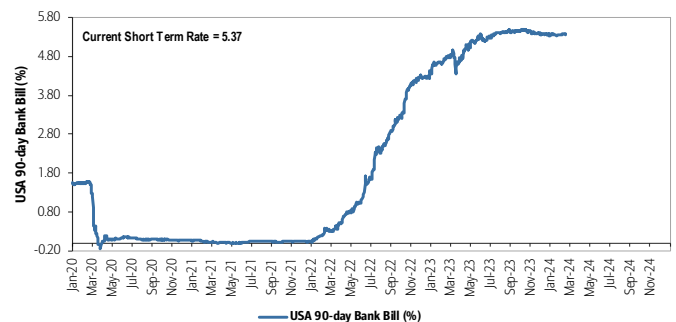


Source : BofA Global Quantitative Strategy, Bloomberg

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

US 90-day yield fell by -1 bps to 5.37%

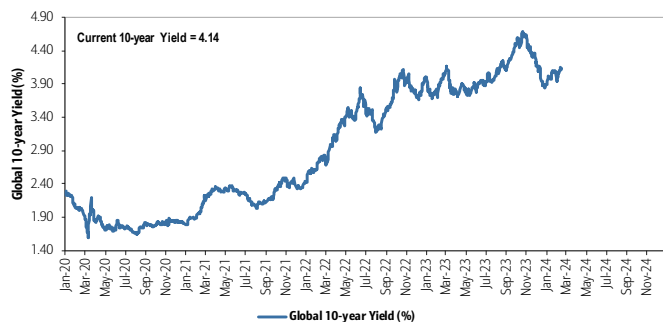


Source : BofA Global Quantitative Strategy, Bloomberg

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

Current 10-yr Global GDP weighted bond yield is 4.14%

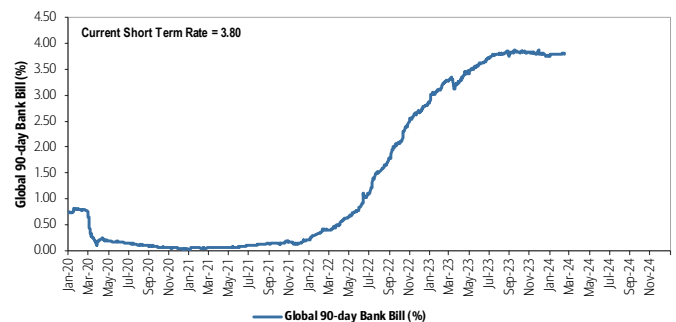


Source : BofA Global Quantitative Strategy, Bloomberg

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

Current 90d Global GDP weighted bond yield is 3.80%

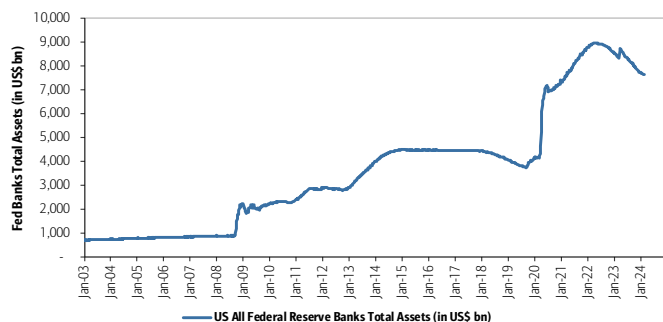


Source : BofA Global Quantitative Strategy, Bloomberg

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

Last week, Fed Reserve's balance sheet expanded by US\$4bn

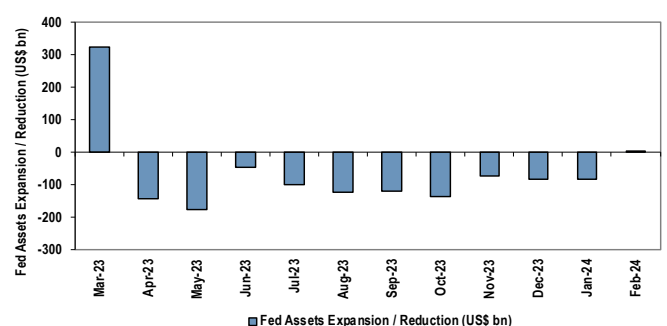


Source : BofA Global Quantitative Strategy, Bloomberg

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

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

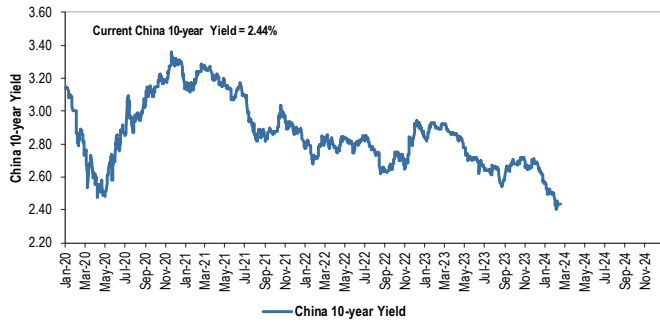


Source : BofA Global Quantitative Strategy, Bloomberg

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

Current China 10-year Yield = 2.44%

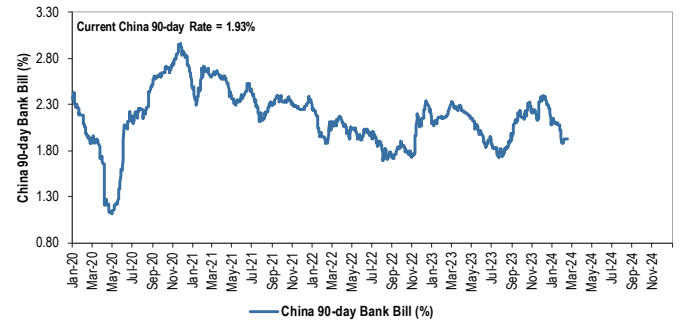


Source : BofA Global Quantitative Strategy, Bloomberg

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

Current China 90-day Rate = 1.93%

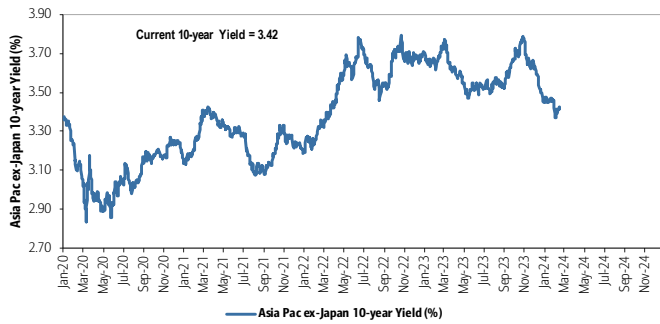


Source : BofA Global Quantitative Strategy, Bloomberg

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

Current 10-year Asia Pac GDP weighted bond yield is 3.42%

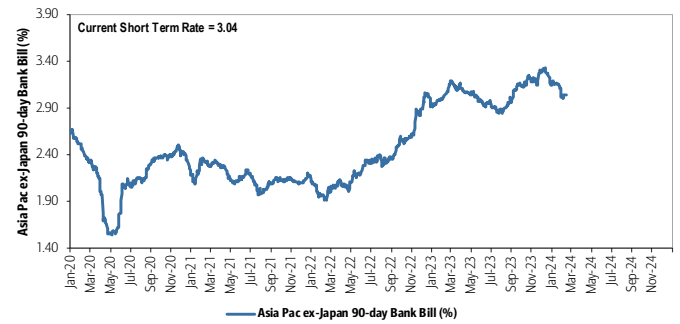


Source : BofA Global Quantitative Strategy, Bloomberg

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

Current 90d Asia Pac GDP weighted bond yield is 3.04%



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%

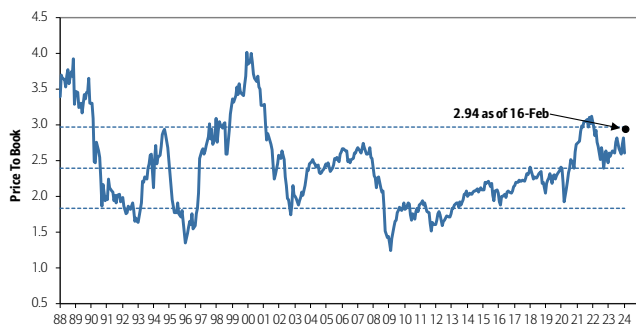
Source : BofA Global Quantitative Strategy, MSCI, Bloomberg

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# Valuation

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

The latest Global Price-to-Book ratio is 2.94

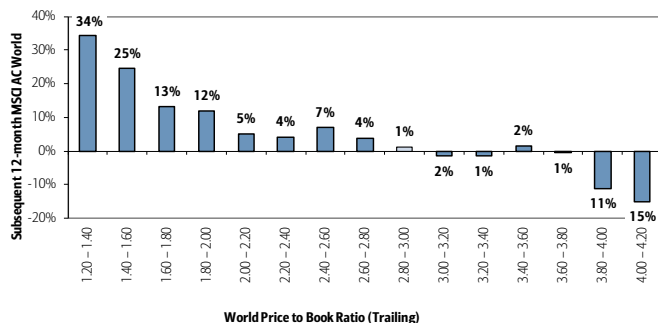


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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

For current PB level, MSCI ACWI returns 1% in the subsequent 12m on average

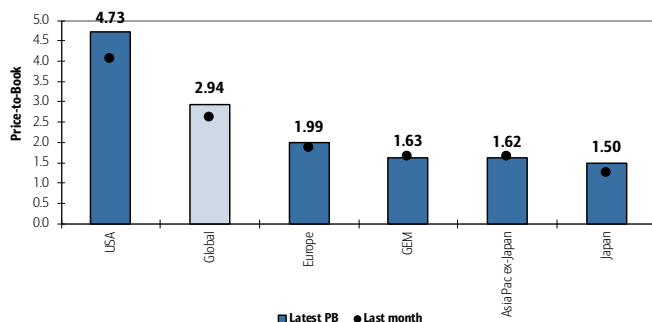


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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

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

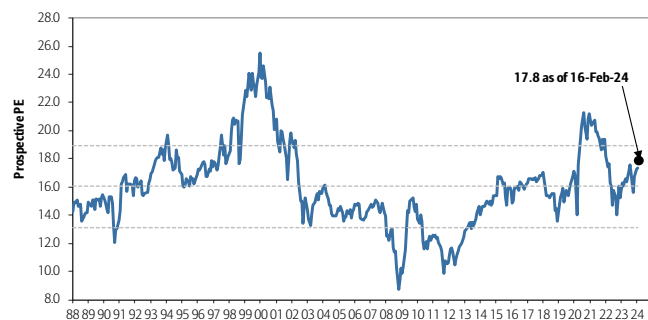


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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**Chart 69: Global Prospective PE**

The latest Global Prospective PE is 17.8

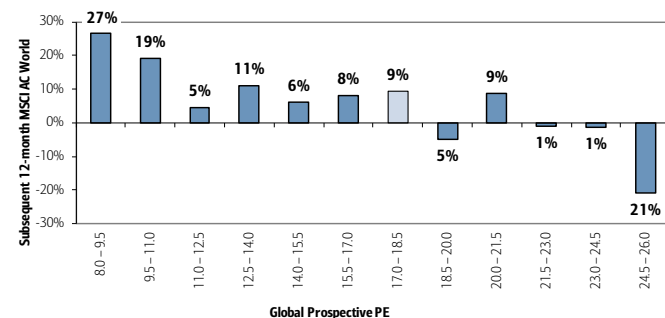


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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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

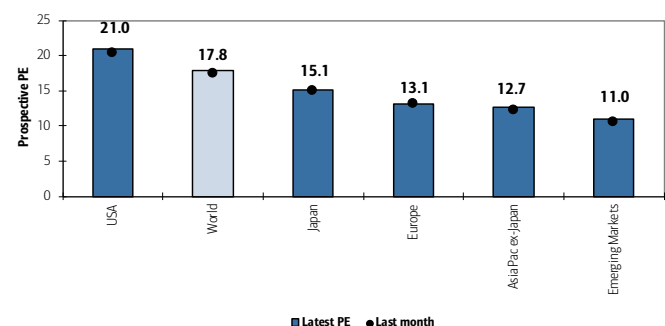


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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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, Insurance, and Div Financials

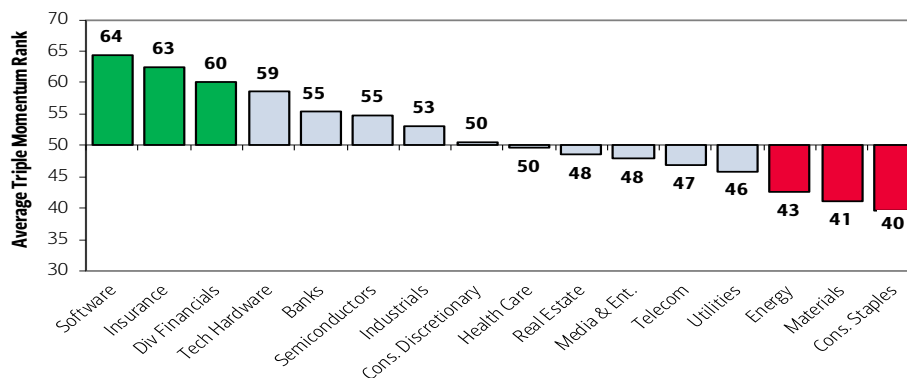
Average Triple Momentum Rank	Banks	Cons. Discretionary	Cons. Staples	Div Financials	Energy	Health Care	Industrials	Insurance	Materials	Media & Ent.	Real Estate	Semiconductors	Software	Tech Hardware	Telecom	Utilities	Region
Canada	13	46	31	72	39		35	76	15		47		68		41	34	41
USA	50	50	34	64	34	48	55	70	46	48	47	51	67	60	25	35	51
Belgium	68		68			44		54	3							64	52
Denmark	87	90	9			51	55	83	12							32	52
Finland			12		4	75	54	37	24					9	35	34	34
France	40	41	32	66	36	46	62	62	78	89	57	8	66		65	70	53
Germany	49	41	43	58		30	56	78	45	88	56	10	59		45	79	49
Italy	73	38			58	53	90								74	60	65
Netherlands	29	70	15	84		20	39	89	35	29		78			45		51
Spain	75	56			7	62	79								73	29	47
Sweden	42	24		78		5	46		27					19	19		37
Switzerland		27	32	31		46	40	48	44				52	82	24		41
UK	30	51	44	52	25	68	57	37	34	20	83		44	75		60	49
Australia	41	32	27	53	20	28	61	58	48	56	57		38		29	71	46
Hong Kong	18	31	65	14		73	41	29			27	17				18	30
Japan	84	54	43	80	71	51	57	75	60	48	67	75	56	45	70	52	58
Singapore	30	50	43				65			24	32				22	100	43
China	28	50	29	38	51	47	42	35	25	49	9	31	26	71	64	51	42
India	55	77	52	64	85	76	65	48	56	76	92		61		70	75	66
Korea	63	41	24	31	20	48	37		25	39		100		34	18	53	38
Taiwan		2	83	73	5		45	47	45			55		80	57		61
Brazil	86	51	59		73		68	63	72						80	47	65
Mexico	79		63				33		62						45		54
Poland	68		23		28				28	49						38	43
South Africa	71	39	75	49		95	23	66	40						35		52
Asia Pac ex-Japan	48	54	39	49	52	54	50	46	40	47	37	51	59	68	44	56	49
Emerging ex-Asia	68	48	56	49	57	95	47	71	45	49	89		99		57	56	58
Europe	49	45	42	57	24	46	54	57	37	49	65	55	60	41	40	44	48
Japan	84	54	43	80	71	51	57	75	60	48	67	75	56	45	70	52	58
United States	50	50	34	64	34	48	55	70	46	48	47	51	67	60	25	35	51
Global	55	50	40	60	43	50	53	63	41	48	48	55	64	59	47	46	

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, Insurance, and Div Financials



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 - Health Care 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

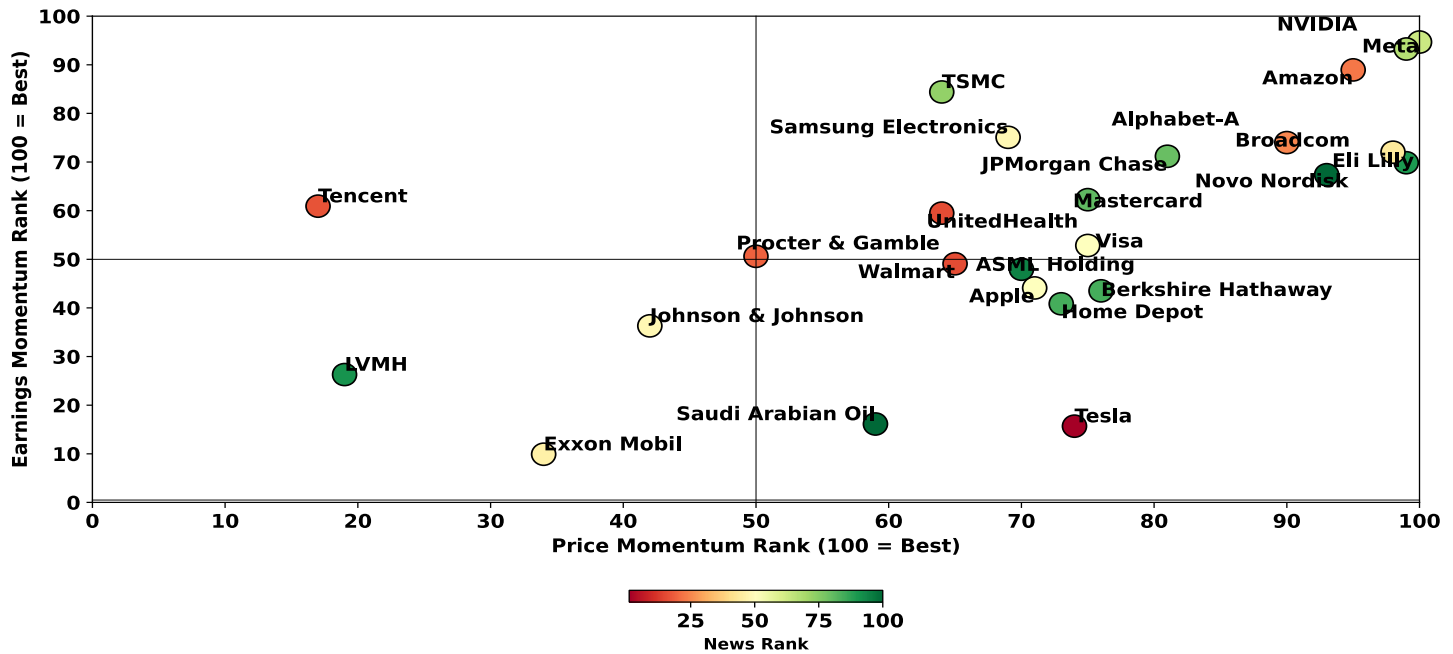
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## Global Regions: Triple Momentum Charts

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

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

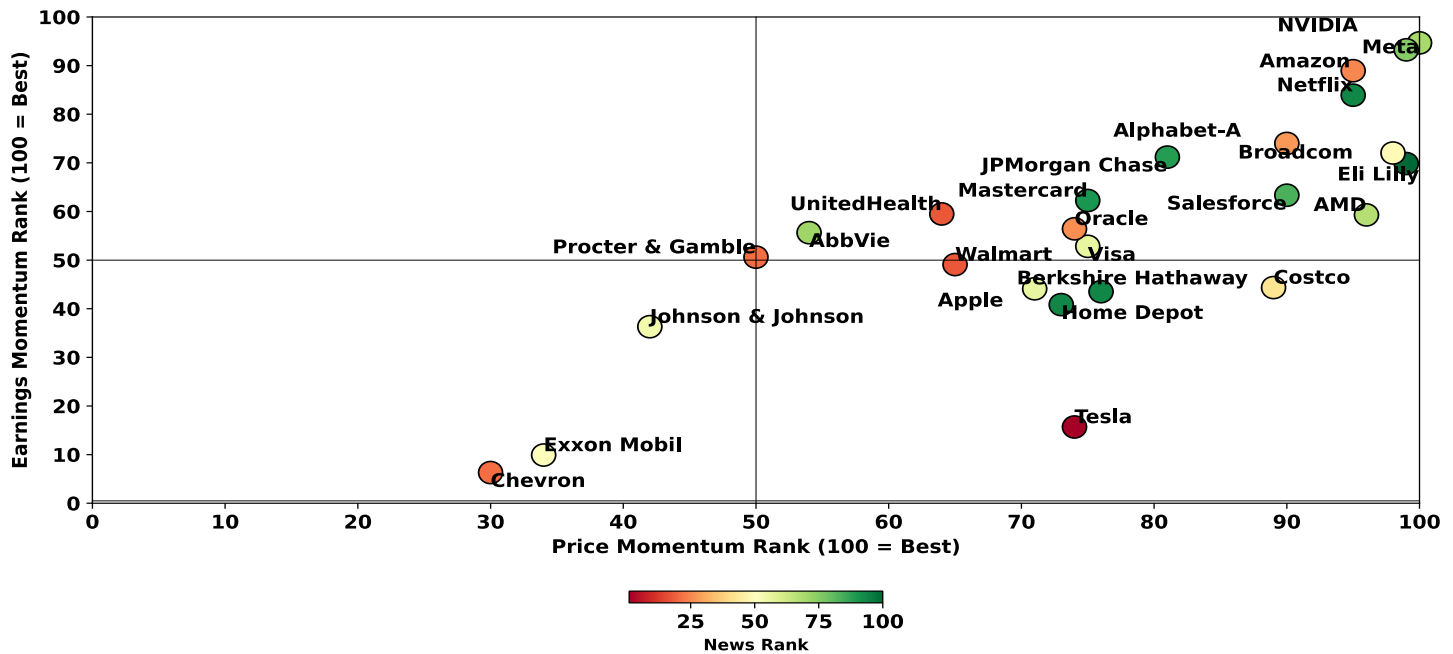


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Netflix, Eli Lilly and JPMorgan Chase

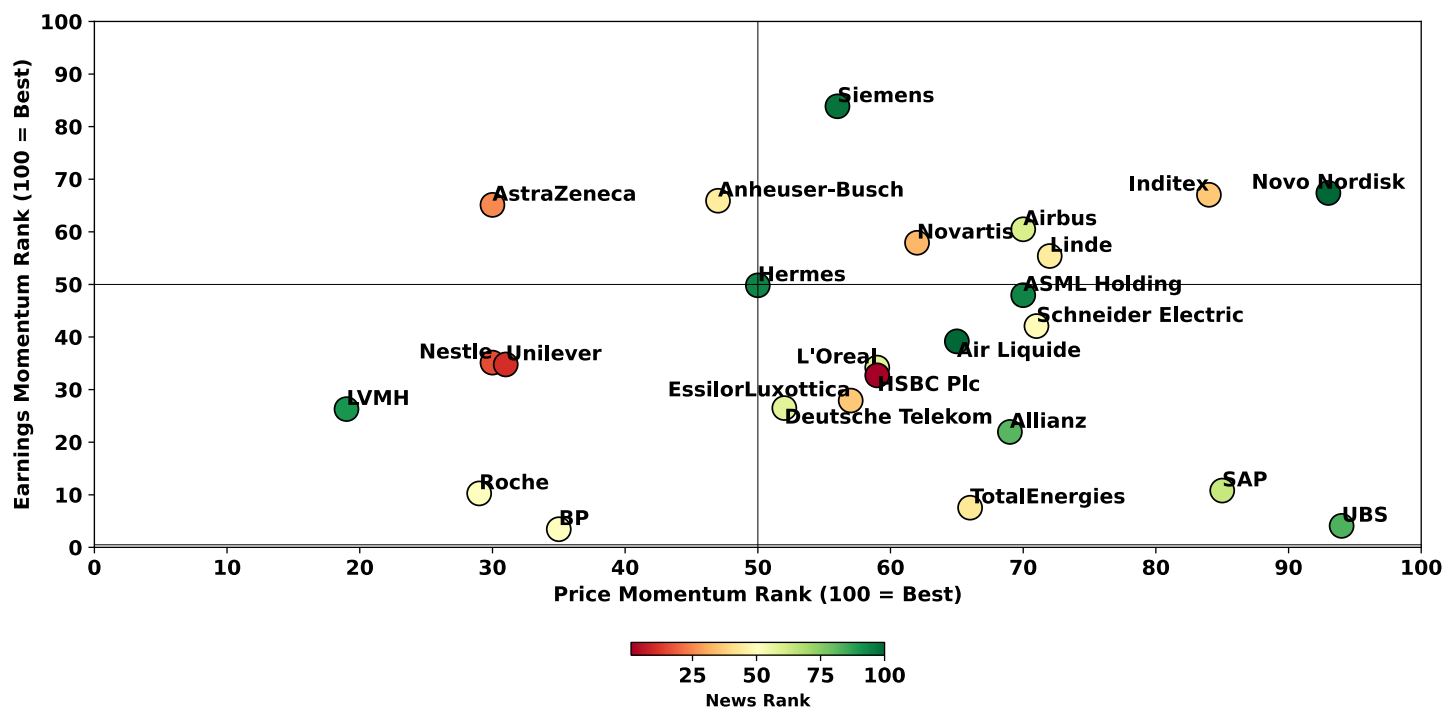


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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, Siemens and Airbus

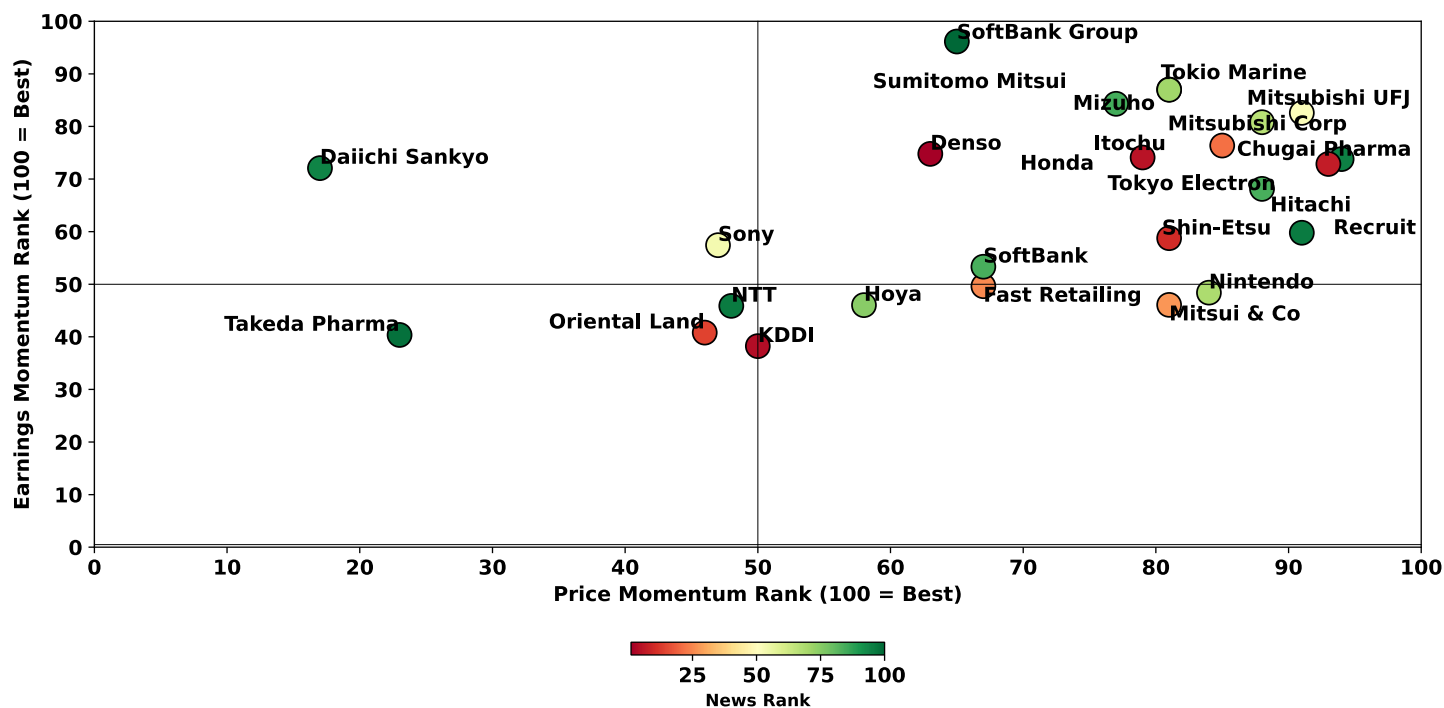


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for SoftBank Group, Tokyo Electron and Recruit

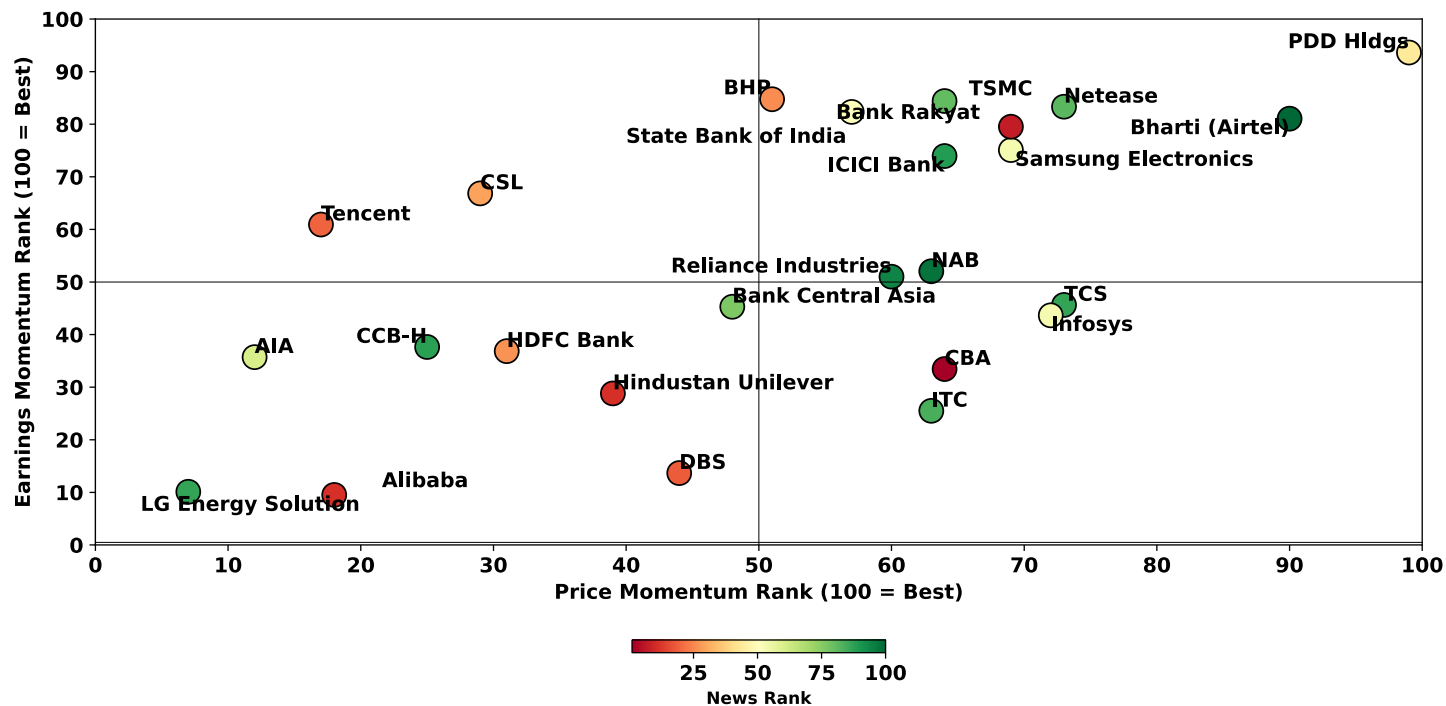


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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 Bharti (Airtel), ICICI Bank and Netease

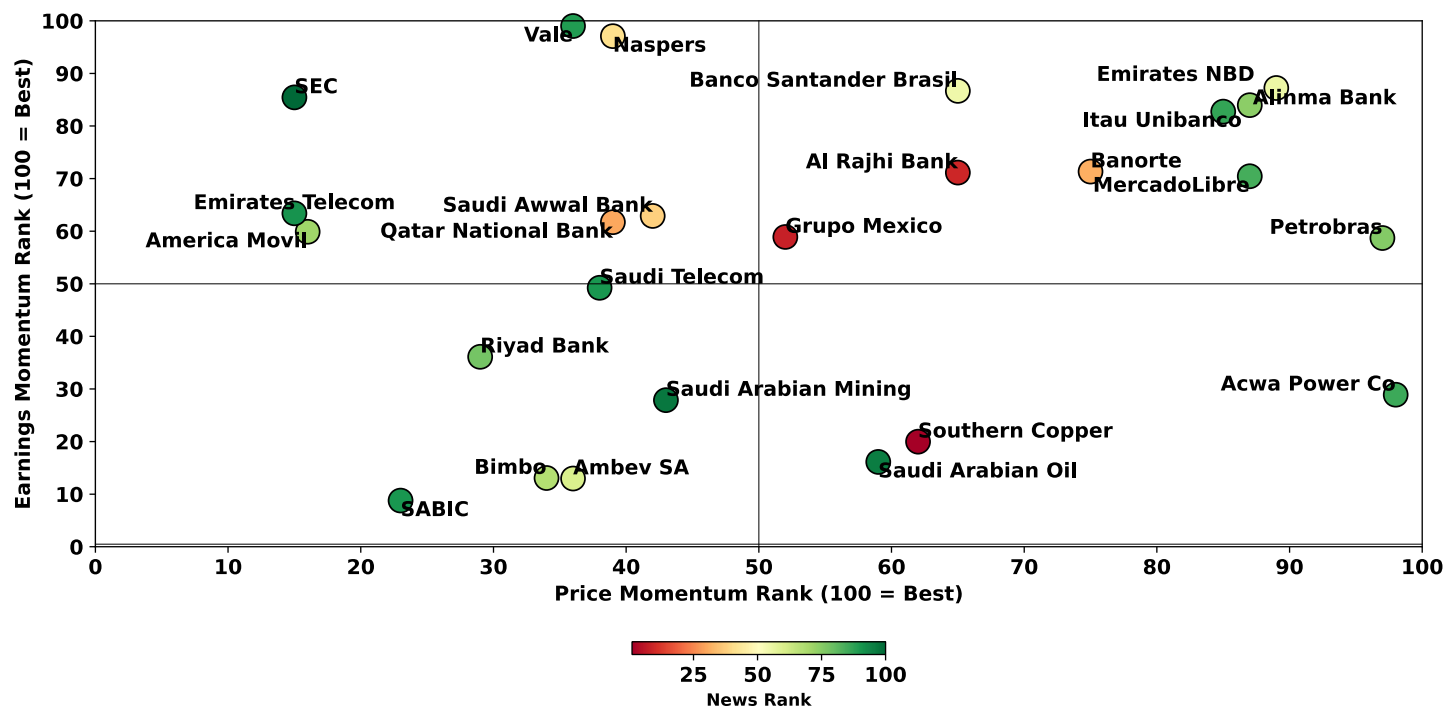


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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, MercadoLibre and Itau Unibanco



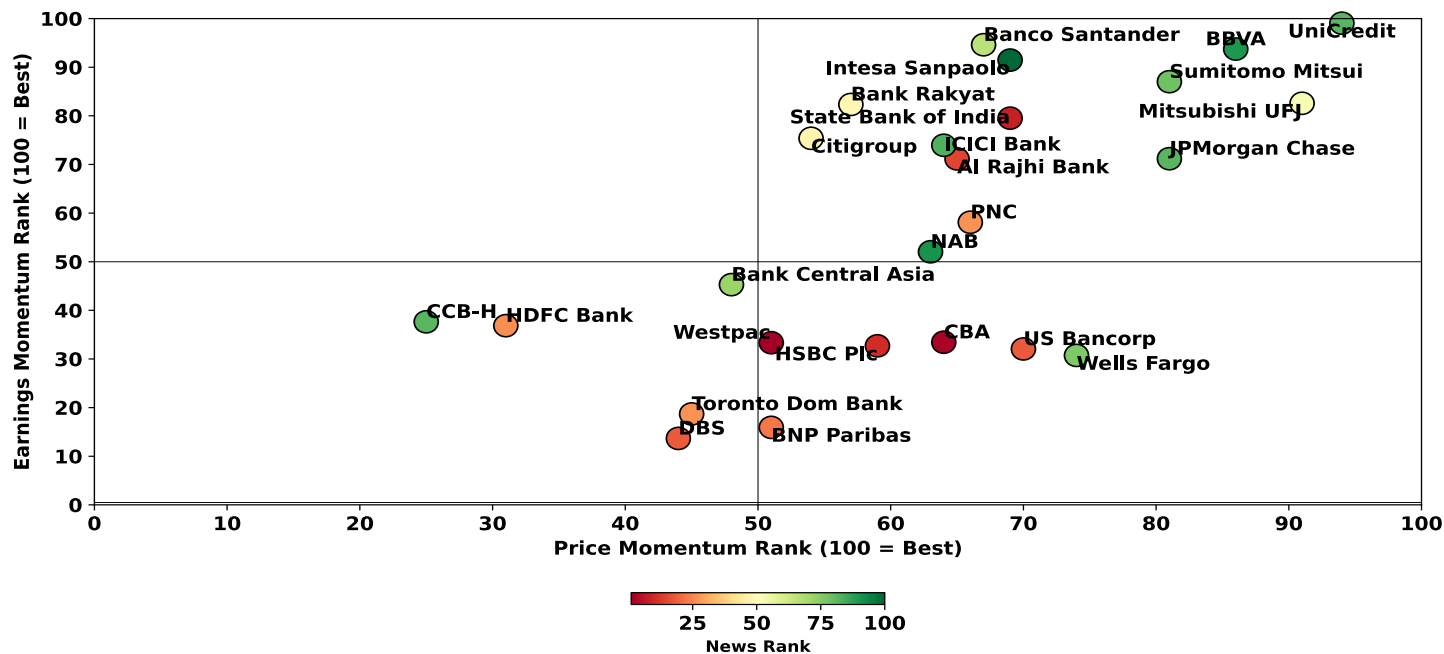
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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 BBVA, Intesa Sanpaolo and UniCredit

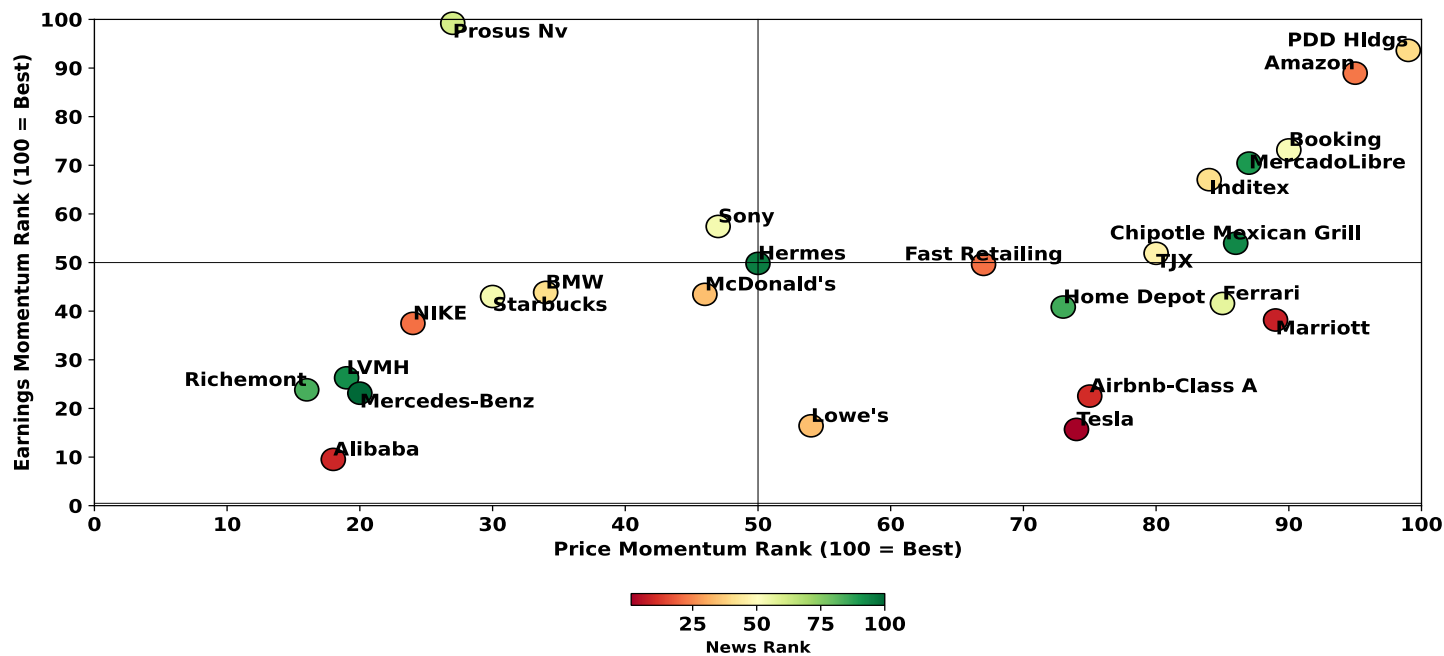


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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 MercadoLibre, Chipotle Mexican Grill and Booking

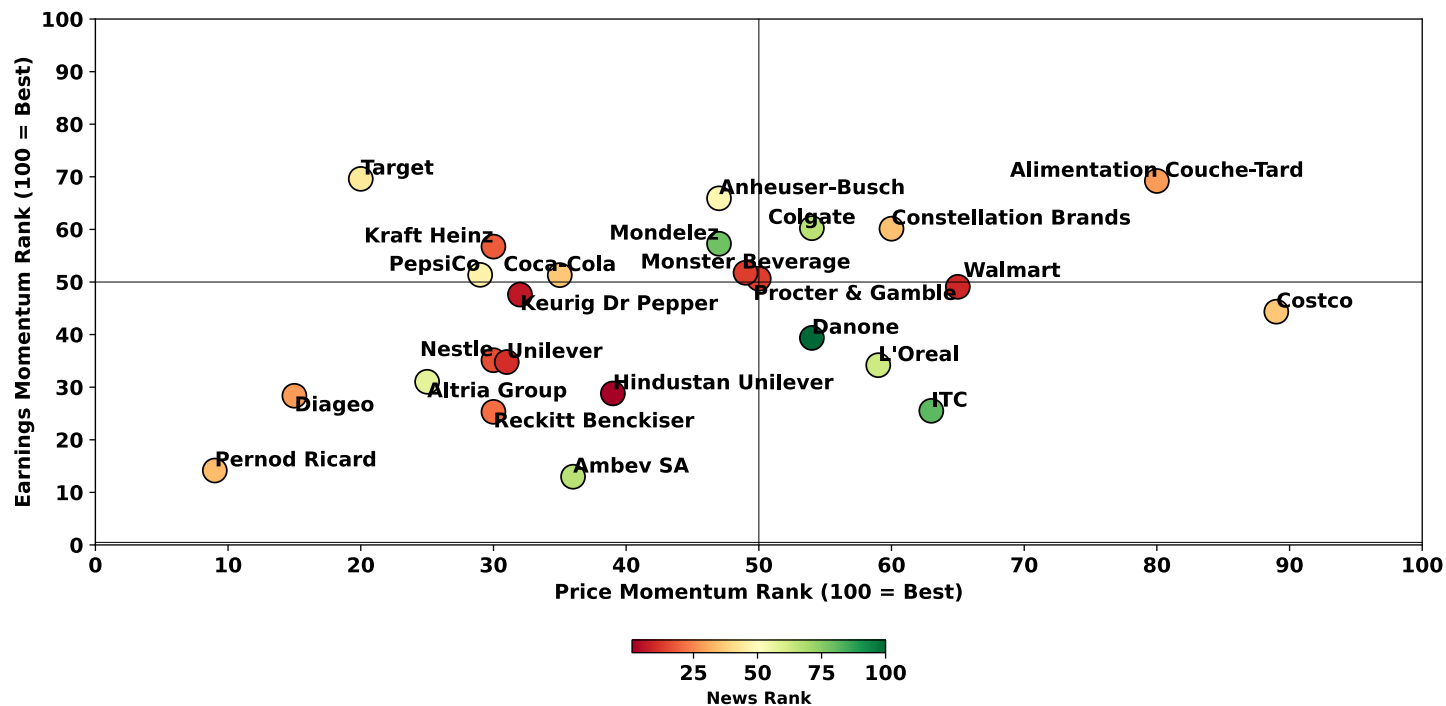


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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 Colgate

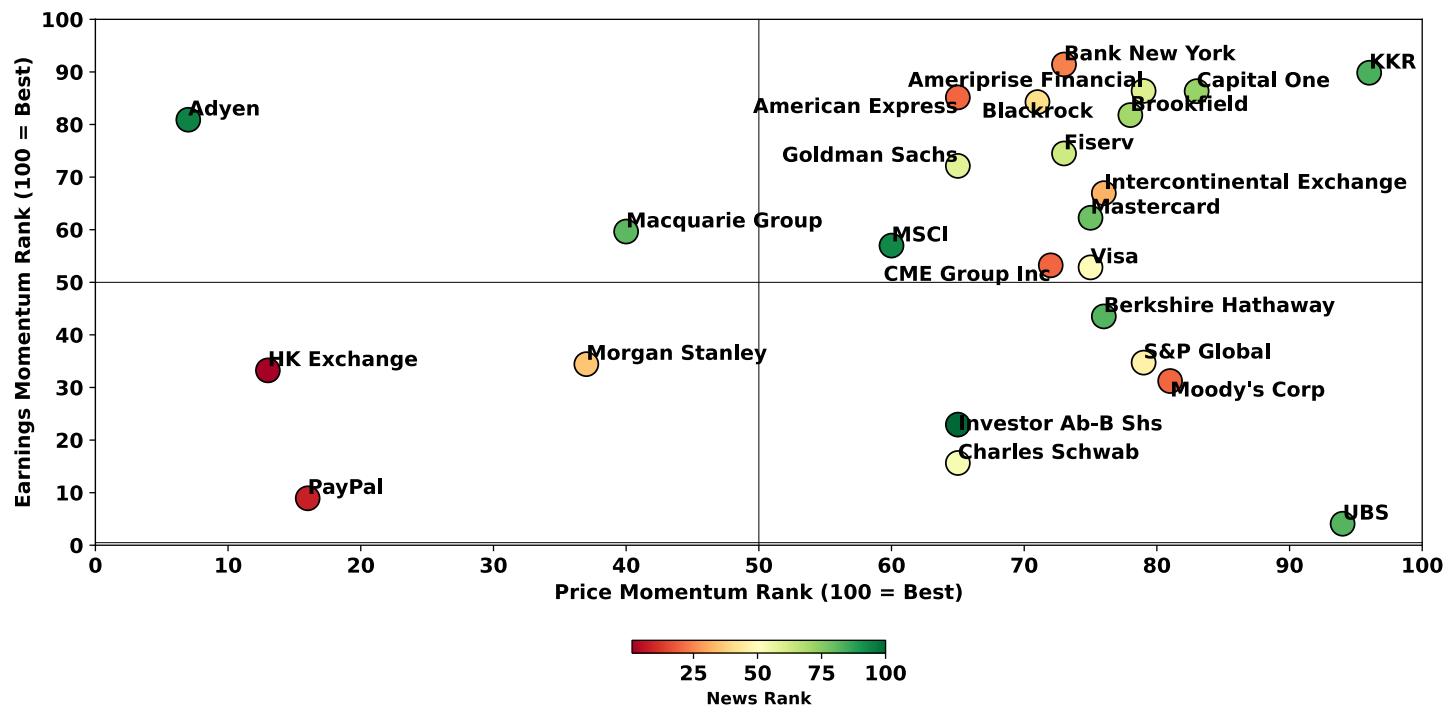


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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, Capital One and Mastercard

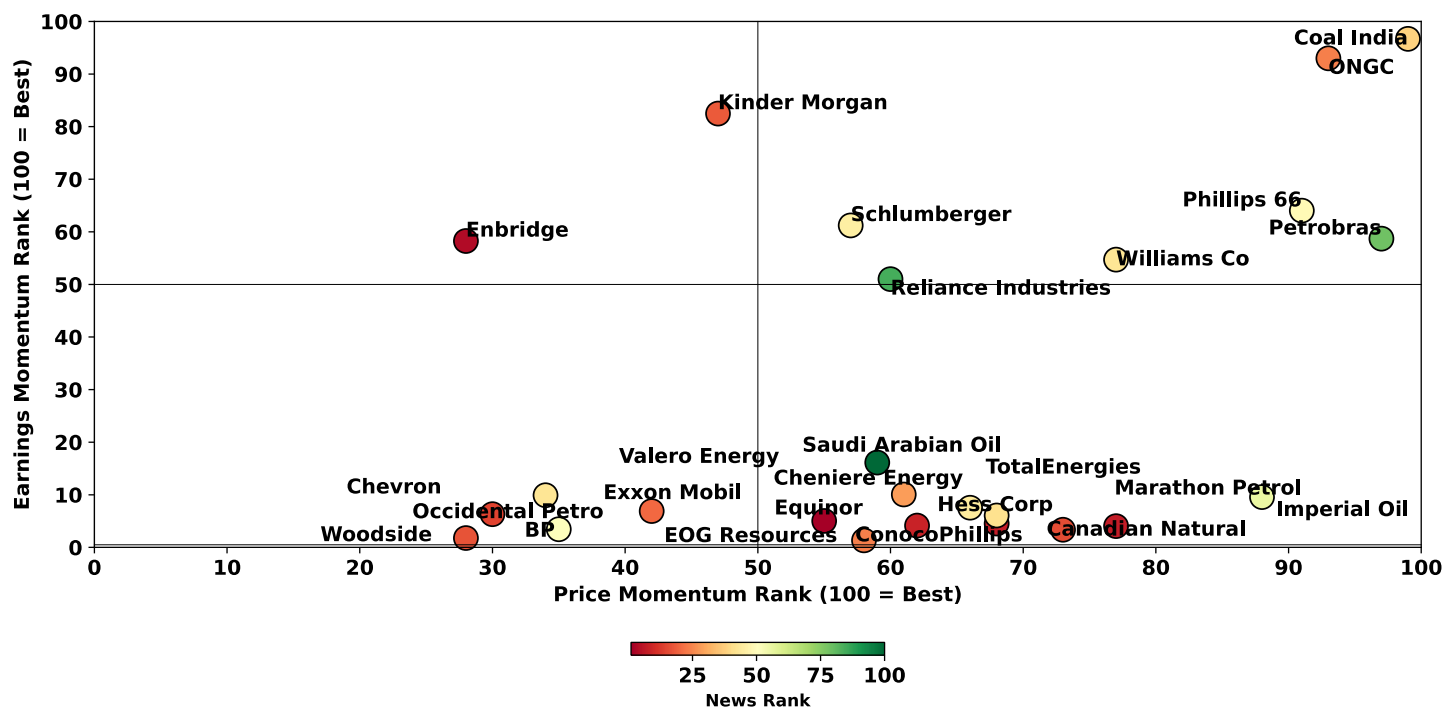


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Petrobras, Reliance Industries and Phillips 66

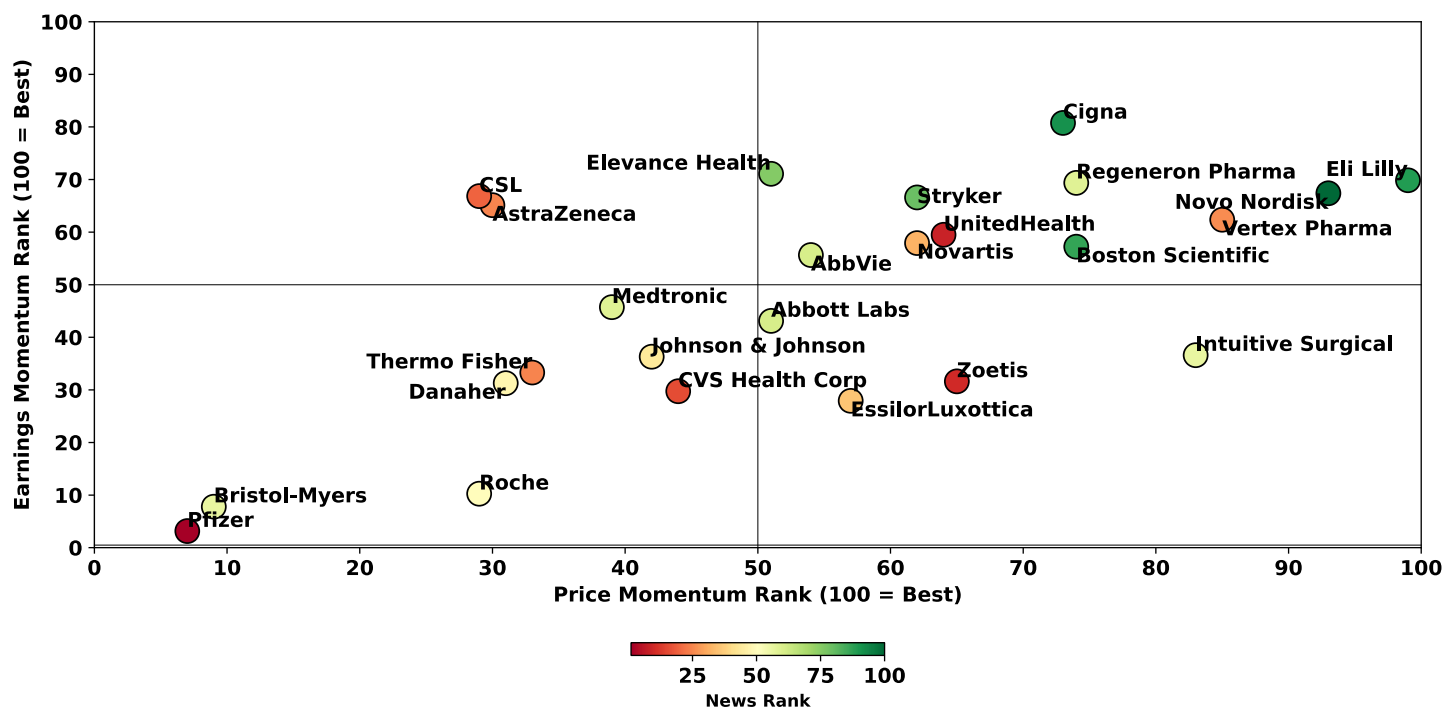


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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 Novo Nordisk, Eli Lilly and Cigna

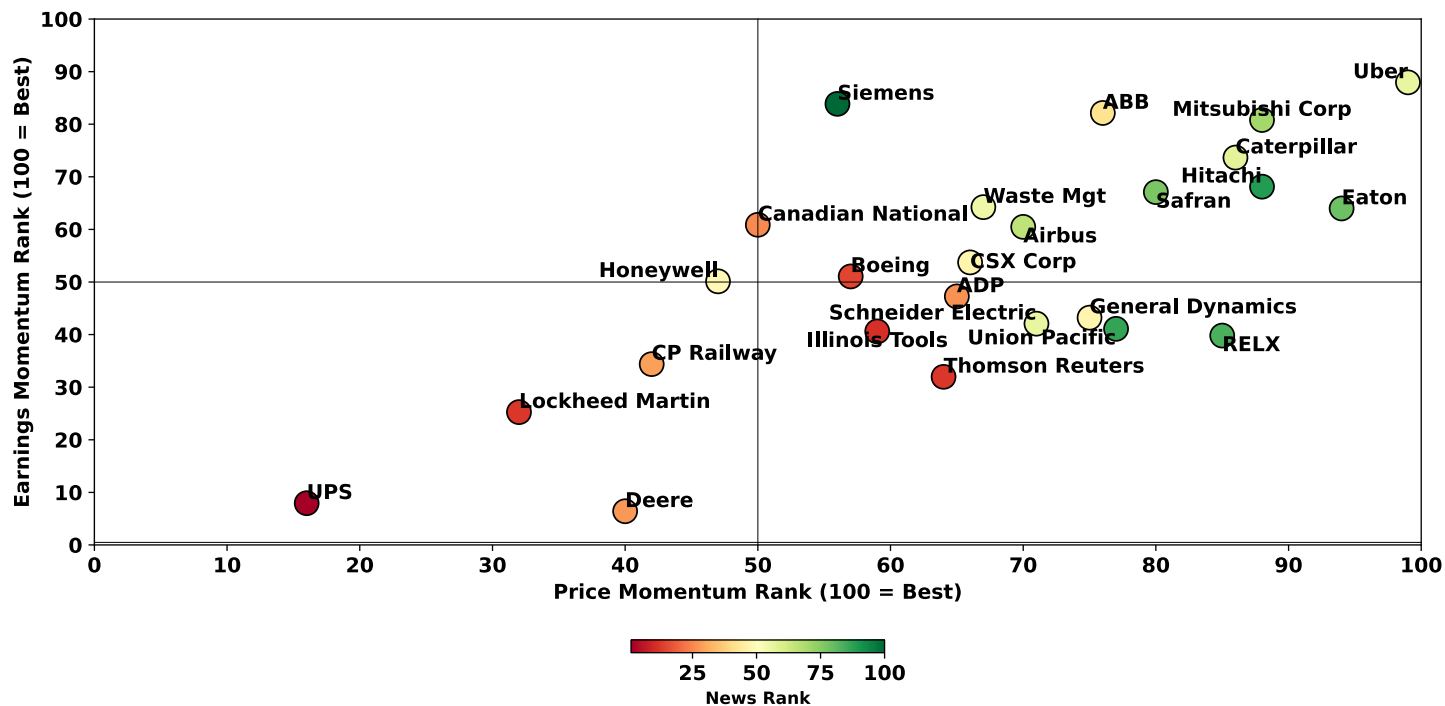


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Siemens, Hitachi and Eaton

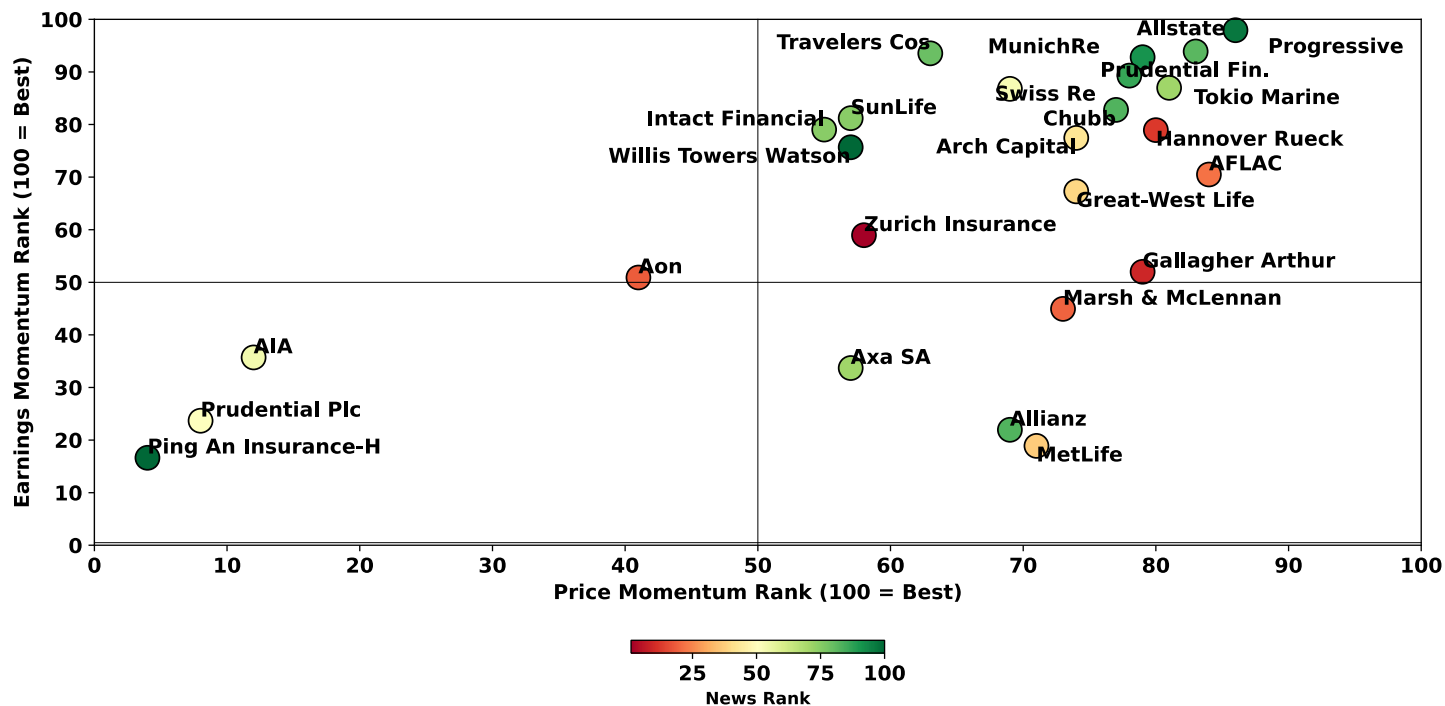


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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 Progressive

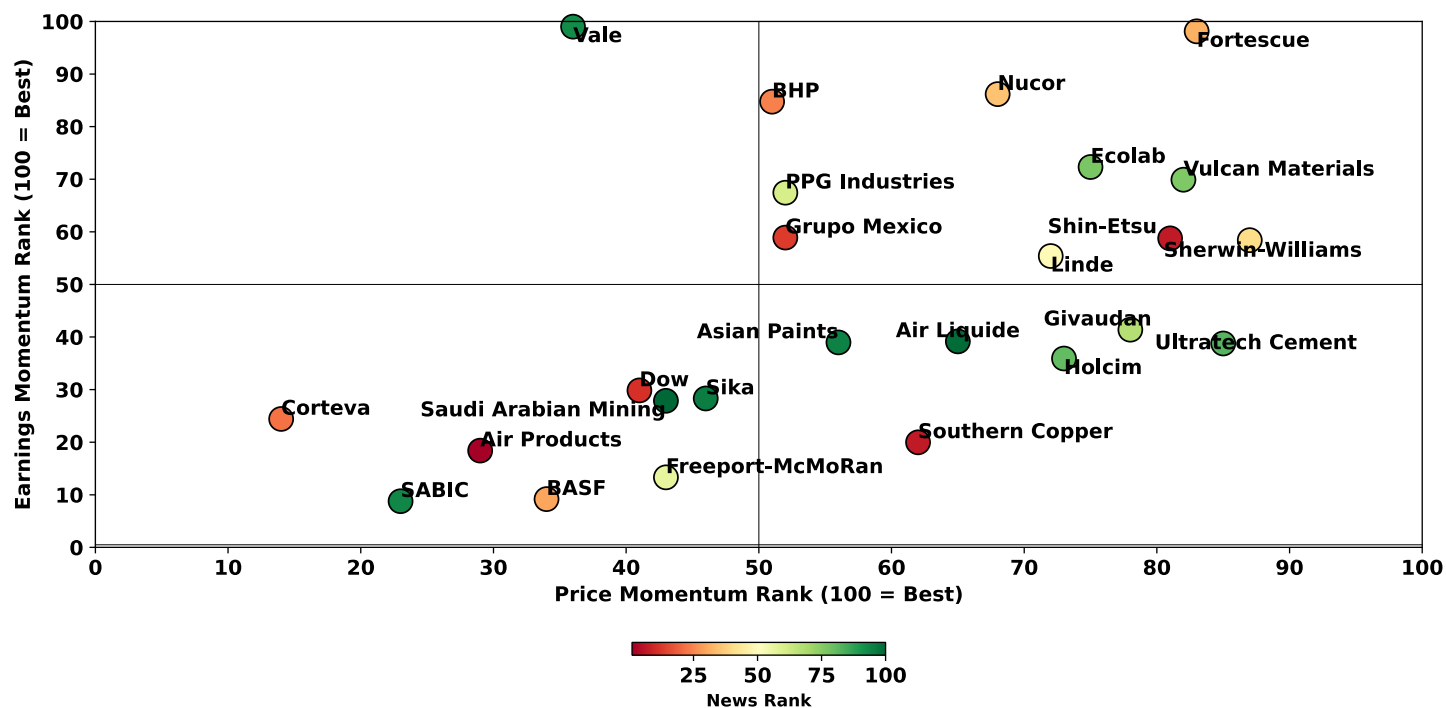


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Vulcan Materials, Ecolab and PPG Industries

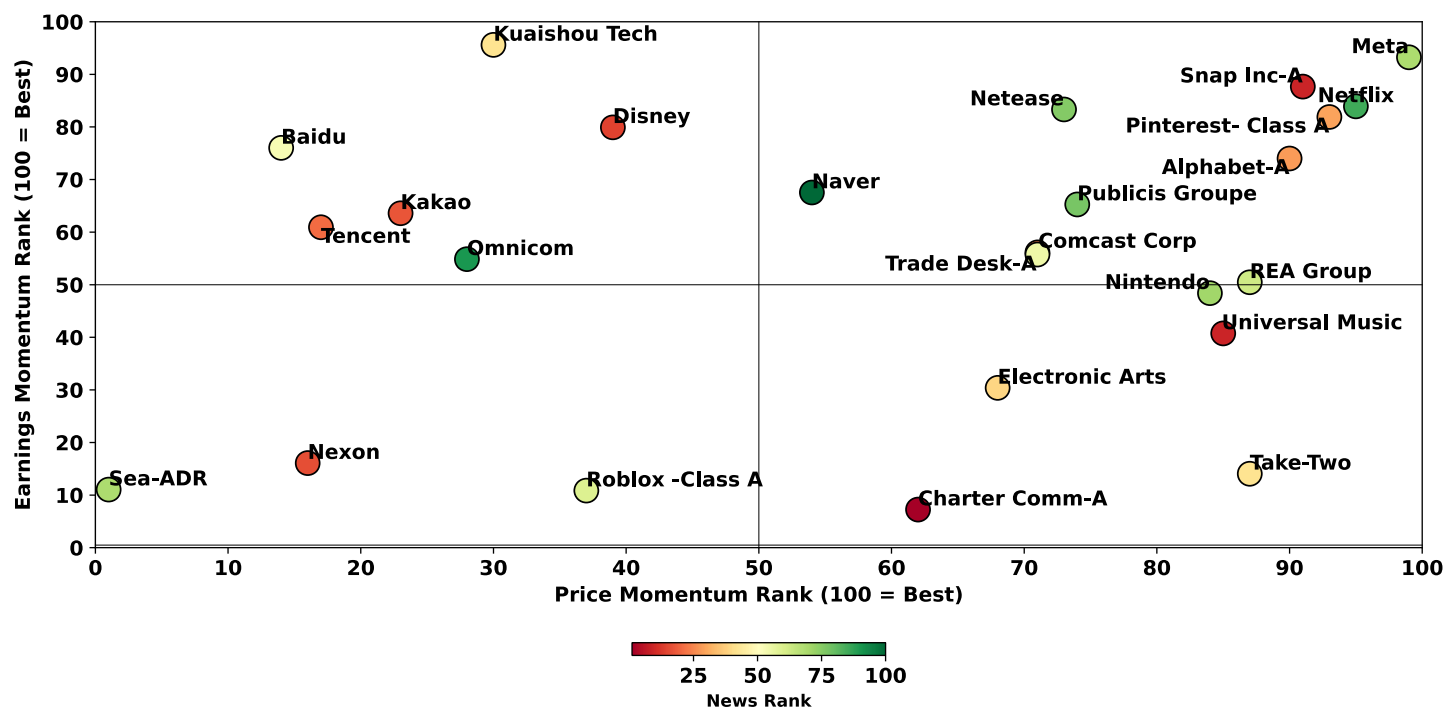


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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 Netflix, Naver 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 Emaar Properties, Goodman Group and Daiwa House

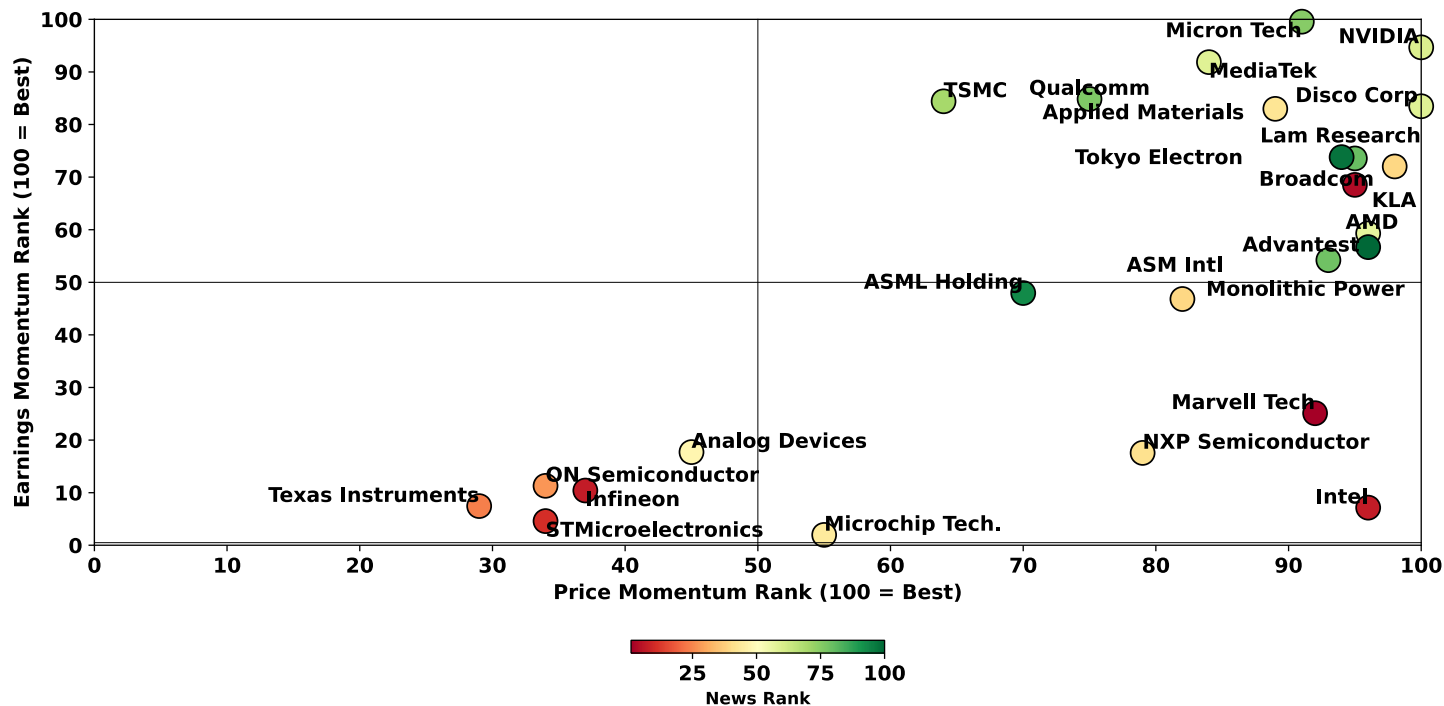


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Tokyo Electron, Advantest and Micron Tech

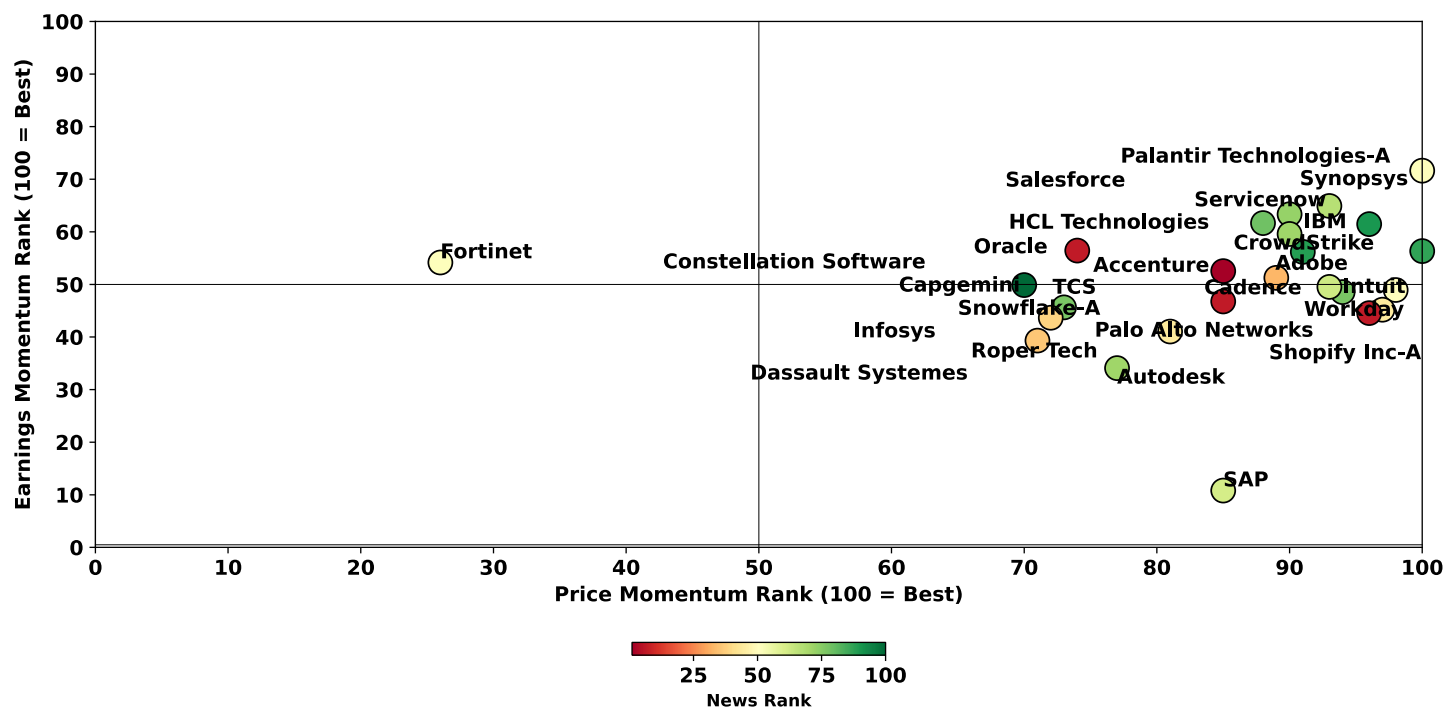


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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, CrowdStrike and Constellation Software

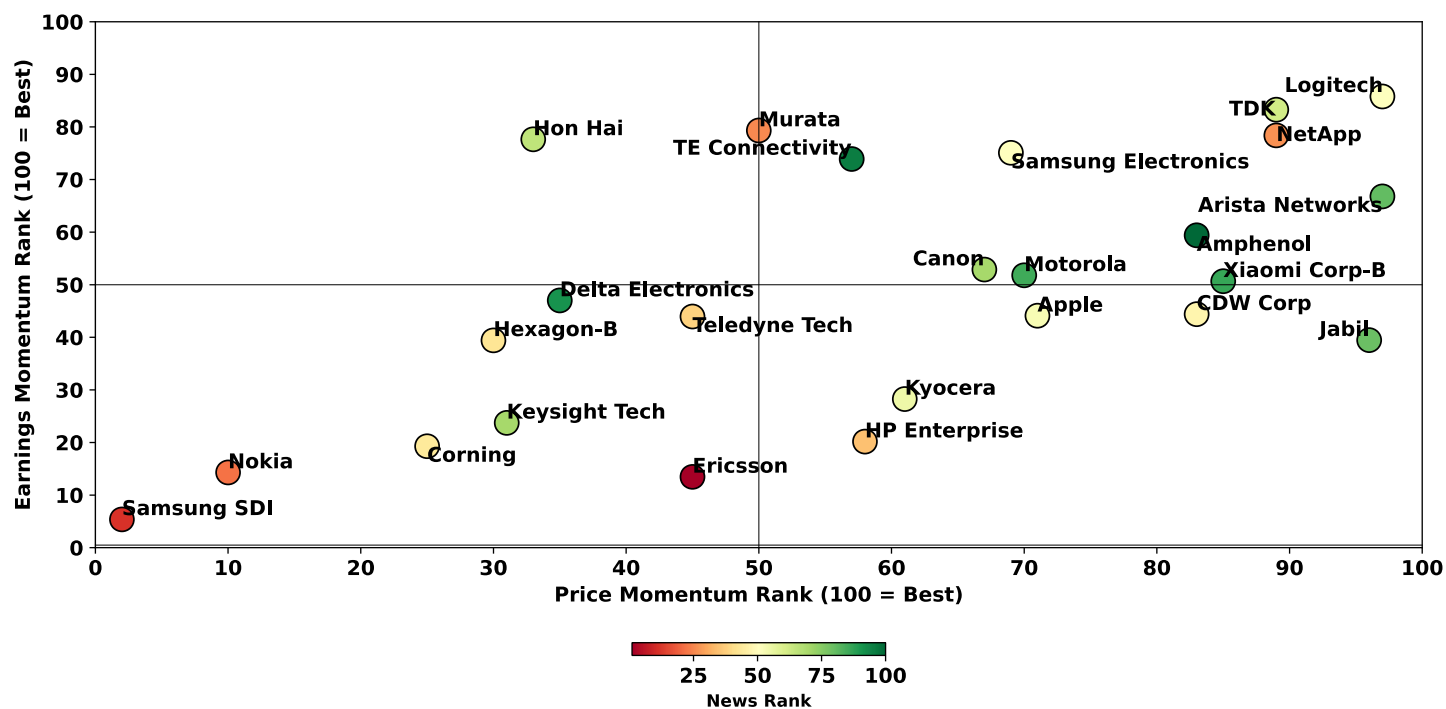


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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 Amphenol, Arista Networks and TE Connectivity



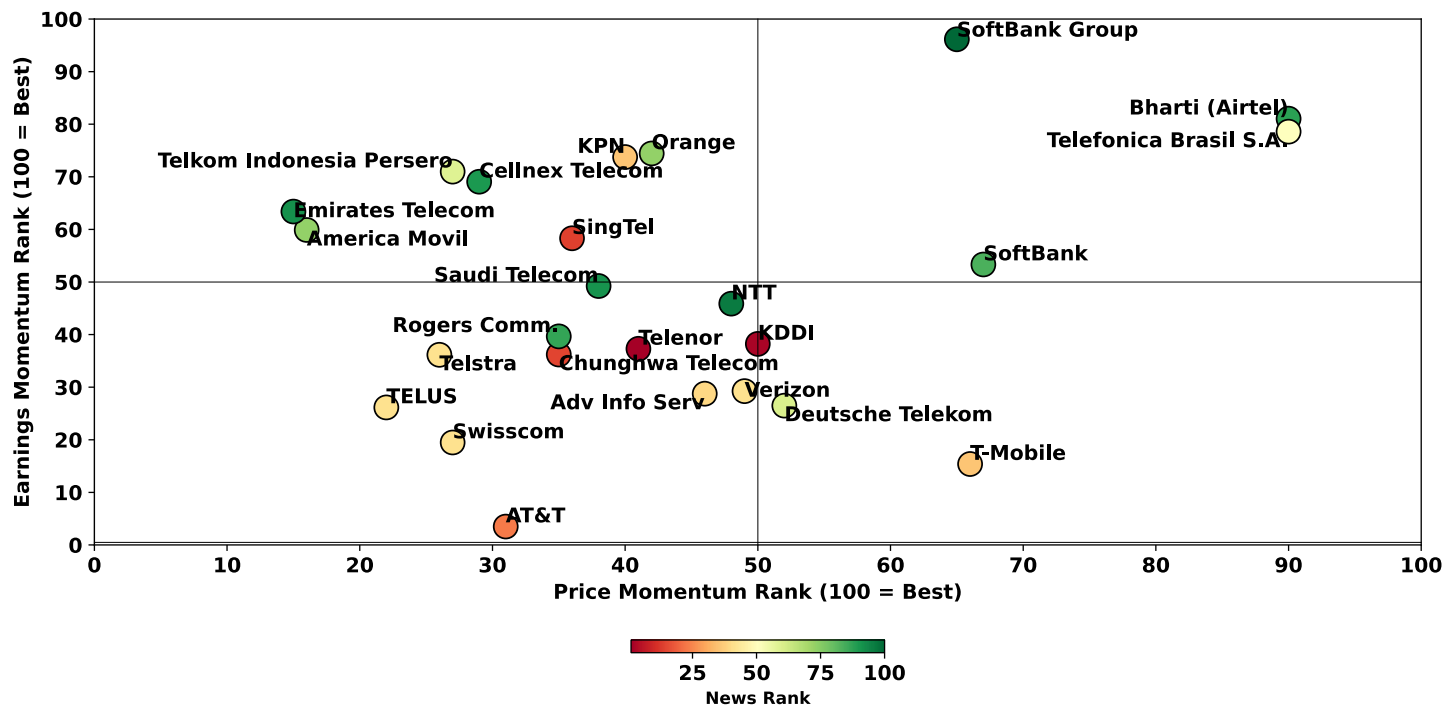
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for SoftBank Group, Bharti (Airtel) and SoftBank

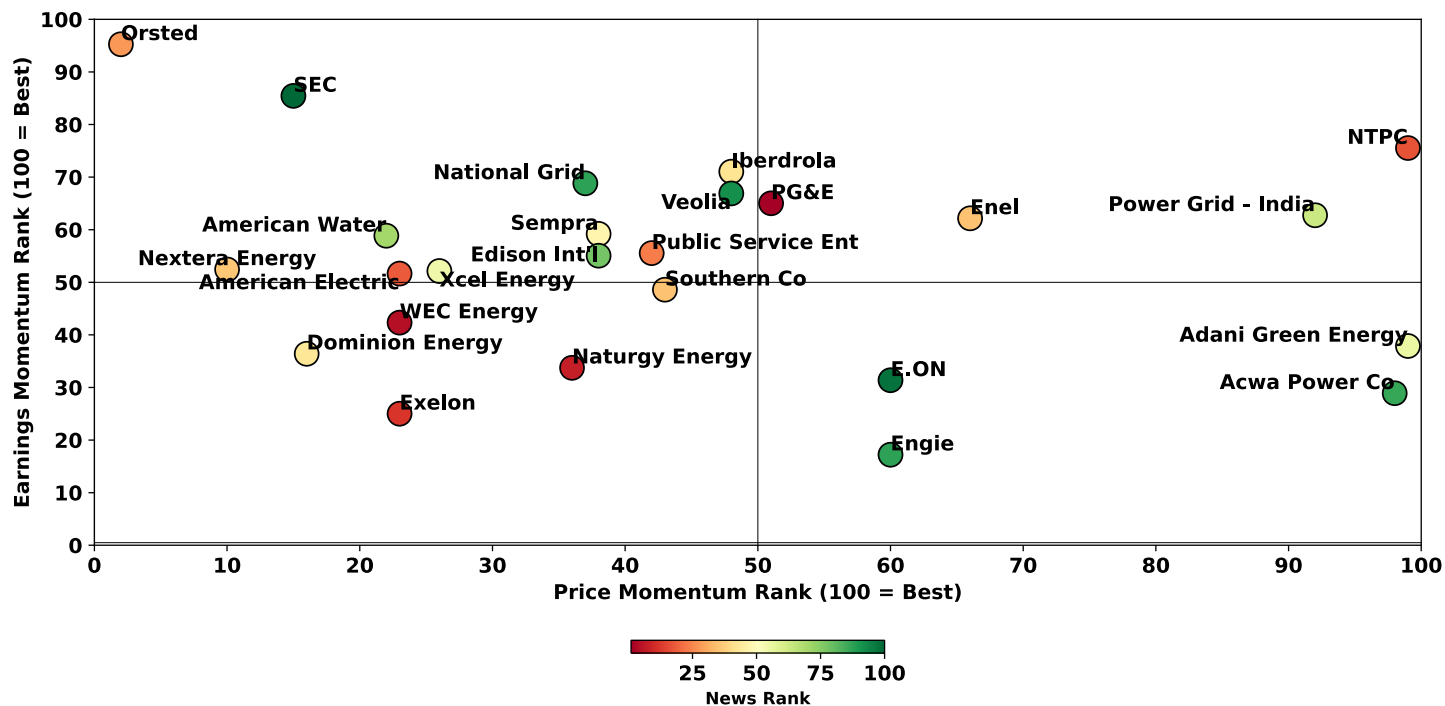


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Power Grid - India



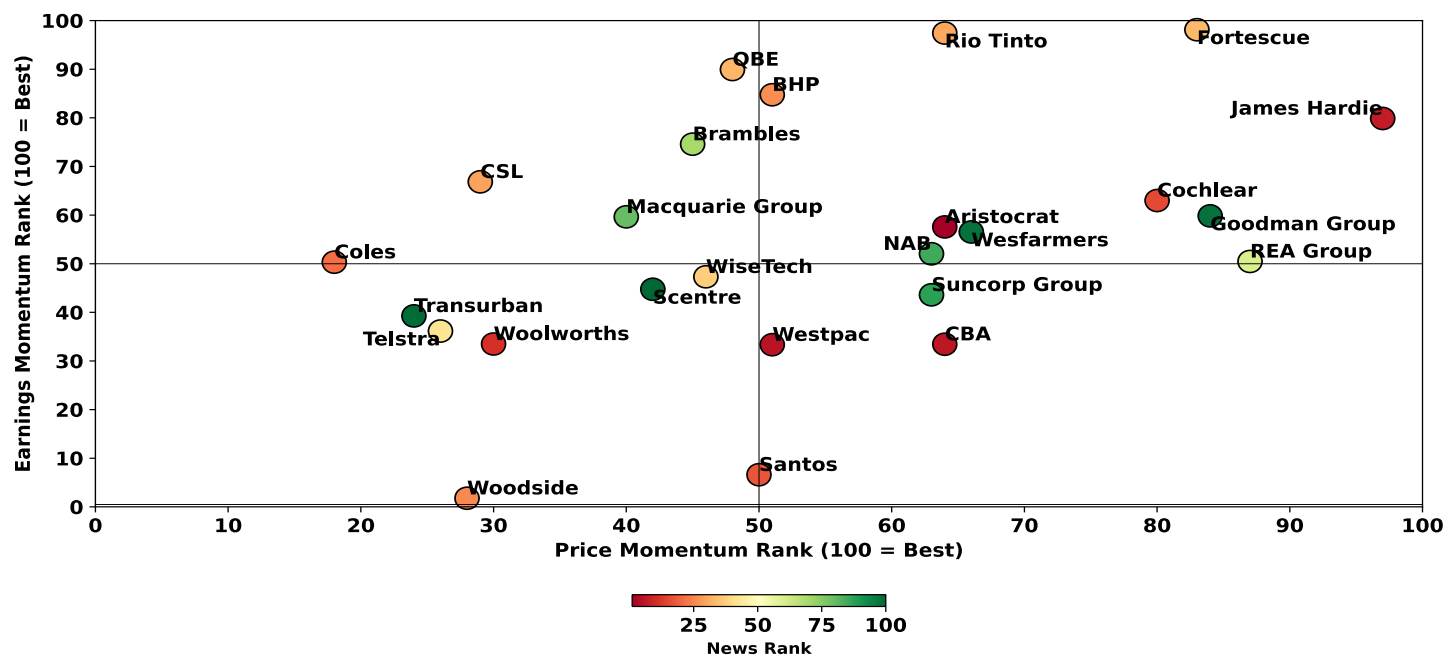
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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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 Goodman Group, Wesfarmers and NAB

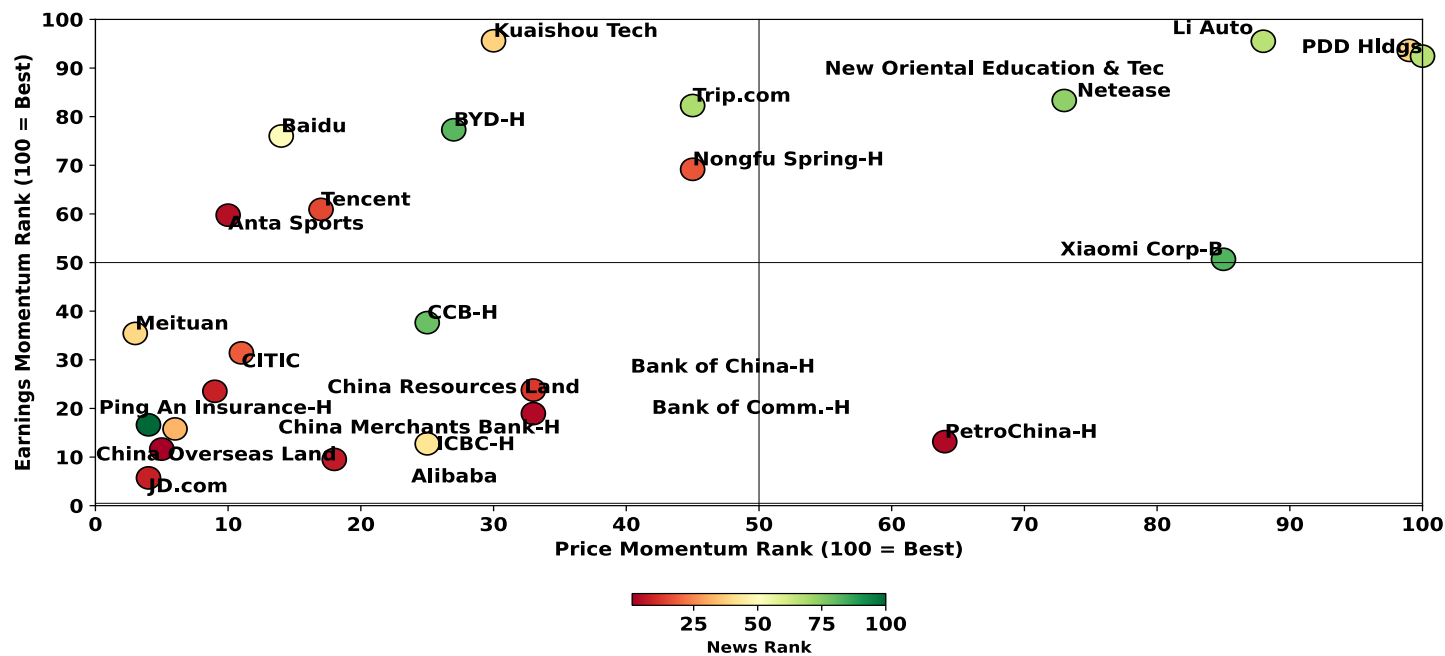


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

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

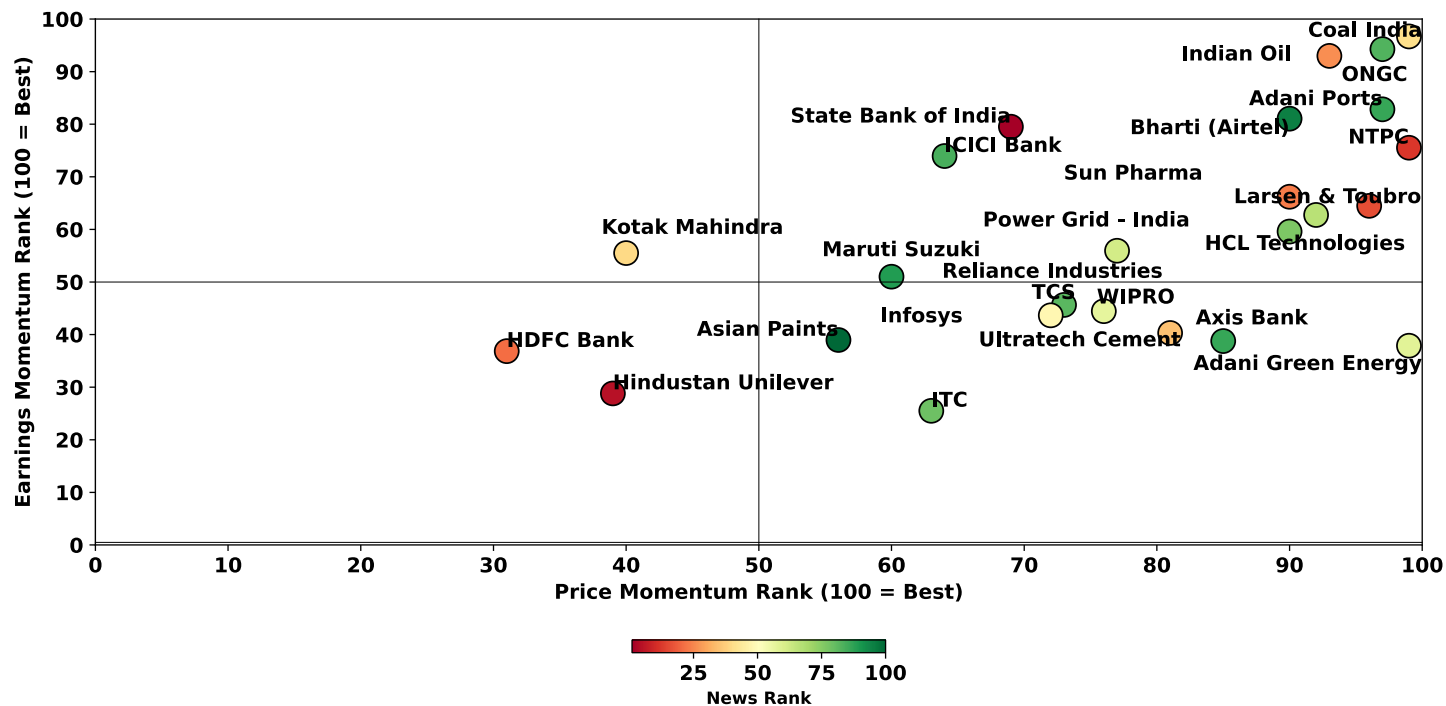


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Bharti (Airtel), Adani Ports and Indian Oil



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	6,737	23.8
Goodman Group	GMG AU	Australia	Real Estate	35,462	67.7
JBS SA	JBSS3 BZ	Brazil	Cons. Staples	10,030	32.0
CSN	CSNA3 BZ	Brazil	Materials	5,085	22.1
Sinotruk Hong Kong	3808 HK	China	Industrials	6,474	8.3
Novo Nordisk	NOVOB DC	Denmark	Health Care	422,355	291.9
Commercial Intl Bank	COMI EY	Egypt	Banks	7,818	14.5
Talanx	TLX GR	Germany	Insurance	18,275	11.2
Mytilineos	MYTIL GA	Greece	Industrials	5,698	7.7
Muthoot Finance	MUTH IN	India	Div Financials	6,562	7.9
Interglobe Aviation	INDIGO IN	India	Industrials	14,152	33.0
Jindal Steel	ISP IN	India	Materials	9,455	18.0
Macrotech Developers	LODHA IN	India	Real Estate	12,468	16.2
Bharti (Airtel)	BHARTI IN	India	Telecom	75,786	62.4
Gail India	GAIL IN	India	Utilities	14,462	35.8
McDonald's (JP)	2702 JP	Japan	Cons. Discretionary	6,071	19.0
Idemitsu	5019 JP	Japan	Energy	9,189	36.9
MHI	7011 JP	Japan	Industrials	24,701	230.7
Nippon Yusen	9101 JP	Japan	Industrials	16,188	202.9
T&D	8795 JP	Japan	Insurance	9,844	38.3
Advantest	6857 JP	Japan	Semiconductors	35,799	396.2
Lasertec	6920 JP	Japan	Semiconductors	25,380	2263.6
Tokyo Electron	8035 JP	Japan	Semiconductors	110,974	496.9
SoftBank Group	9984 JP	Japan	Telecom	81,359	375.7
Aegon	AGN NA	Netherlands	Insurance	11,749	34.0
Arabian Internet & Communica	SOLUTION AB	Saudi Arabia	Software	12,594	12.9
Sembcorp Ind	SCI SP	Singapore	Utilities	7,648	19.7
Standard Bank	SBK SJ	South Africa	Banks	18,474	29.9
Clicks Group	CLS SJ	South Africa	Cons. Staples	3,722	12.9
Kumba Iron Ore	KIO SJ	South Africa	Materials	9,522	6.8
Hanwha Aerospace	012450 KS	South Korea	Industrials	5,357	43.8
Hanmi Semiconductor	042700 KS	South Korea	Semiconductors	5,496	86.9
BBVA	BBVA SM	Spain	Banks	57,934	107.9
Sandoz	SDZ SW	Switzerland	Health Care	14,049	67.9
Compal	2324 TT	Taiwan	Tech Hardware	5,179	45.3
Gigabyte Tech	2376 TT	Taiwan	Tech Hardware	7,724	221.0
Wistron	3231 TT	Taiwan	Tech Hardware	11,653	347.5
Wiiwynn	6669 TT	Taiwan	Tech Hardware	12,741	158.2
Emaar Properties	EMAAR UH	UAE	Real Estate	19,685	25.1
3i Group	III LN	United Kingdom	Div Financials	30,332	35.1
M&G Plc	MNG LN	United Kingdom	Div Financials	6,666	9.9
Leidos	LDOS US	United States	Industrials	17,008	71.8
Allstate	ALL US	United States	Insurance	42,317	201.0
GoDaddy	GDDY US	United States	Software	16,146	149.3
UiPath - Class A	PATH US	United States	Software	12,088	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)
Mineral Resources	MIN AU	Australia	Materials	7,611	44.3
Umicore	UMI BB	Belgium	Materials	5,486	11.0
First Quantum	FM CN	Canada	Materials	6,232	64.1
Pan American Silver	PAAS CN	Canada	Materials	4,776	13.4
SQM	SQM/B CI	Chile	Industrials	6,248	25.9
Haitong Securities-H	6837 HK	China	Div Financials	1,617	3.9
Shandong Weigao-H	1066 HK	China	Health Care	2,764	7.0
China Nat'l Building-H	3323 HK	China	Materials	1,707	7.0
China Vanke-H	2202 HK	China	Real Estate	1,797	21.8
Longfor	960 HK	China	Real Estate	7,905	34.8
Yuexiu Property	123 HK	China	Real Estate	2,815	9.0
Flat Glass-H	6865 HK	China	Semiconductors	866	10.4
China Gas	384 HK	China	Utilities	4,746	6.8
Bayer	BAYN GR	Germany	Health Care	30,276	139.4
Wacker Chemie	WCH GR	Germany	Materials	5,702	12.0
BOC HK	2388 HK	Hong Kong	Banks	26,548	20.9
Hang Lung Prop	101 HK	Hong Kong	Real Estate	4,843	7.3
UPL	UPLL IN	India	Materials	4,439	18.4
Aneka Tambang	ANTM IJ	Indonesia	Materials	2,354	4.4
ICL	ICL IT	Israel	Materials	6,385	9.9
Kubota	6326 JP	Japan	Industrials	17,425	54.5
Toto	5332 JP	Japan	Industrials	4,347	19.6
Norsk Hydro	NHY NO	Norway	Materials	11,320	20.6
Advanced Petrochem	APPC AB	Saudi Arabia	Materials	2,700	6.1
Saudi Industrial	SIIG AB	Saudi Arabia	Materials	4,271	4.9
Saudi Kayan Petro	KAYAN AB	Saudi Arabia	Materials	3,804	5.9
Anglo Platinum	AMS SJ	South Africa	Materials	10,232	13.4
Sibanye Stillwater	SSW SJ	South Africa	Materials	3,212	20.6
LG H&H	051900 KS	South Korea	Cons. Staples	3,935	22.8
Kakaopay	377300 KS	South Korea	Div Financials	4,961	9.7
L&F	066970 KS	South Korea	Industrials	4,120	91.5
Lotte Chemical	011170 KS	South Korea	Materials	4,398	11.5
Samsung SDI	006400 KS	South Korea	Tech Hardware	20,828	107.1
Acciona SA	ANA SM	Spain	Utilities	6,450	12.9
Julius Baer	BAER SW	Switzerland	Div Financials	11,559	31.7
Clariant	CLN SW	Switzerland	Materials	4,172	10.6
SIG Group	SIGN SW	Switzerland	Materials	7,821	17.6
Momo.com	8454 TT	Taiwan	Cons. Discretionary	3,304	8.7
Burberry	BRBY LN	United Kingdom	Cons. Discretionary	6,123	24.3
VF Corp	VFC US	United States	Cons. Discretionary	6,475	136.9
Archer Daniels	ADM US	United States	Cons. Staples	28,762	267.5
Humana	HUM US	United States	Health Care	45,464	674.2
Pfizer	PFE US	United States	Health Care	155,941	1079.8
UPS	UPS US	United States	Industrials	107,341	568.8
Albemarle	ALB US	United States	Materials	14,386	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)
Wesfarmers	WES AU	Australia	Cons. Discretionary	46,611	59.9
Bluescope Steel	BSL AU	Australia	Materials	6,737	23.8
Northern Star Res.	NST AU	Australia	Materials	9,871	39.5
Goodman Group	GMG AU	Australia	Real Estate	35,462	67.7
Sinotruk Hong Kong	3808 HK	China	Industrials	6,474	8.3
CGN Power-H	1816 HK	China	Utilities	3,140	8.5
China Power	2380 HK	China	Utilities	4,729	12.0
BOC Aviation	2588 HK	Hong Kong	Industrials	5,155	2.5
Trent	TRENT IN	India	Cons. Discretionary	17,234	21.2
Indian Oil	IOCL IN	India	Energy	31,809	32.4
Petronet LNG	PLNG IN	India	Energy	5,022	14.7
Adani Ports	ADSEZ IN	India	Industrials	33,253	82.1
Interglobe Aviation	INDIGO IN	India	Industrials	14,152	33.0
Jindal Steel	JSP IN	India	Materials	9,455	18.0
Macrotech Developers	LODHA IN	India	Real Estate	12,468	16.2
Bharti (Airtel)	BHARTI IN	India	Telecom	75,786	62.4
Gail India	GAIL IN	India	Utilities	14,462	35.8
Tata Power	TPWR IN	India	Utilities	14,484	61.3
Genting	GENT MK	Malaysia	Cons. Discretionary	3,982	4.2
Meridian Energy	MEL NZ	New Zealand	Utilities	9,049	3.4
Jollibee Foods	JFC PM	Philippines	Cons. Discretionary	5,182	2.8
Sembcorp Ind	SCI SP	Singapore	Utilities	7,648	19.7
Hanwha Aerospace	012450 KS	South Korea	Industrials	5,357	43.8
Hanmi Semiconductor	042700 KS	South Korea	Semiconductors	5,496	86.9
Evergreen Marine	2603 TT	Taiwan	Industrials	9,990	99.3
Acer	2353 TT	Taiwan	Tech Hardware	4,729	55.2
Compal	2324 TT	Taiwan	Tech Hardware	5,179	45.3
Gigabyte Tech	2376 TT	Taiwan	Tech Hardware	7,724	221.0
Wistron	3231 TT	Taiwan	Tech Hardware	11,653	347.5
Wiwynn	6669 TT	Taiwan	Tech Hardware	12,741	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)
Mineral Resources	MIN AU	Australia	Materials	7,611	44.3
China Minsheng Bank-H	1988 HK	China	Banks	2,840	4.2
East Buy	1797 HK	China	Cons. Discretionary	3,301	48.8
JD.com	9618 HK	China	Cons. Discretionary	33,805	149.6
Haitong Securities-H	6837 HK	China	Div Financials	1,617	3.9
Shandong Weigao-H	1066 HK	China	Health Care	2,764	7.0
WuXi Biologics	2269 HK	China	Health Care	9,393	135.5
China Pacific Insurance-H	2601 HK	China	Insurance	5,542	24.0
China Hongqiao	1378 HK	China	Materials	7,014	19.8
China Nat'l Building-H	3323 HK	China	Materials	1,707	7.0
China Overseas Land	688 HK	China	Real Estate	16,708	32.2
China Vanke-H	2202 HK	China	Real Estate	1,797	21.8
Longfor	960 HK	China	Real Estate	7,905	34.8
Yuexiu Property	123 HK	China	Real Estate	2,815	9.0
Flat Glass-H	6865 HK	China	Semiconductors	866	10.4
China Gas	384 HK	China	Utilities	4,746	6.8
BOC HK	2388 HK	Hong Kong	Banks	26,548	20.9
Hang Lung Prop	101 HK	Hong Kong	Real Estate	4,843	7.3
UPL	UPLL IN	India	Materials	4,439	18.4
Aneka Tambang	ANTM IJ	Indonesia	Materials	2,354	4.4
LG H&H	051900 KS	South Korea	Cons. Staples	3,935	22.8
Doosan Bobcat	241560 KS	South Korea	Industrials	3,656	11.7
Hyundai Mipo	010620 KS	South Korea	Industrials	1,884	8.7
L&F	066970 KS	South Korea	Industrials	4,120	91.5
Samsung Heavy	010140 KS	South Korea	Industrials	4,810	26.9
Lotte Chemical	011170 KS	South Korea	Materials	4,398	11.5
Samsung SDI	006400 KS	South Korea	Tech Hardware	20,828	107.1
Momo.com	8454 TT	Taiwan	Cons. Discretionary	3,304	8.7
Formosa Petro	6505 TT	Taiwan	Energy	22,421	4.6
Central Retail	CRC TB	Thailand	Cons. Discretionary	5,734	12.4

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

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