

High Frequency Monitor

Well-deserved break

Equity markets take a breather

Global equity markets took a [breather](#) in the first week of 2024 after a nine-week rally which was the longest in six years. Investors seemed to question whether expectations of interest rate cuts in Developed Markets had become too aggressive as the MSCI AC World Index fell -1.6%. Returns were negative in all regions, while defensive global [sectors](#) outperformed, including Health Care, Telecom, and Utilities. Risk and Small Caps were the worst performing [styles](#) during the week. Despite the pullback, the setup for 2024 remains positive as earnings remain resilient, a US soft-landing appears likely, and Developed Market central banks may soon start to ease monetary policy.

Positive short-term Tactical Indicators

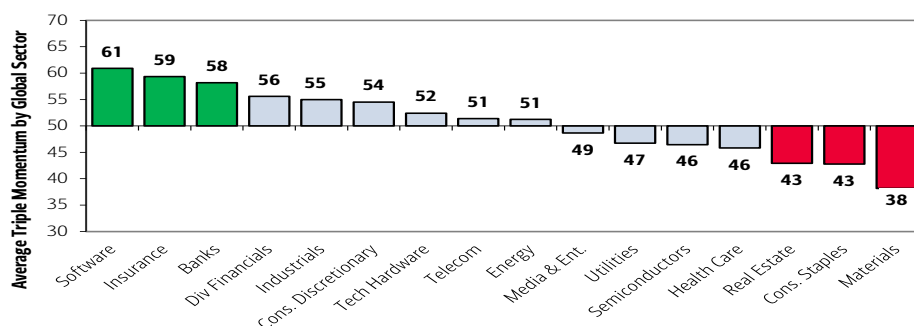
Based on data over the last four weeks, the signal from our short-term [Tactical Indicators](#) remains positive. Nevertheless, as equities retraced last week, copper fell, AUD depreciated, Global Credit Spreads widened, volatility increased, and the Global Cycle Sensitives underperformed. Last week, the [Global Earnings Revision](#) Ratio moderated from 0.85 to 0.81 as the Ratio fell slightly in all regions.

Triple Momentum: Top and bottom global sectors

[Triple Momentum](#) (earnings, price, news) is now most positive on the global Software, Insurance, and Banks sectors, and most negative on Materials, Consumer Staples, and Real Estate. Recent news trends have been dominated by X, iPhone, Google Cloud, Threads, JPMorgan, Alphabet, and Apple.

Chart 1: Global Sectors - Average Triple Momentum Rank

Triple Momentum is currently strongest for Software, Insurance, and Banks



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

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08 January 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 41 to 43.

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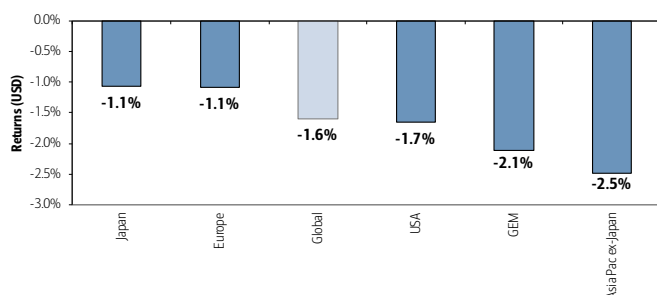
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The Global News Pulse (and the regional and sectors versions of it) is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied 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

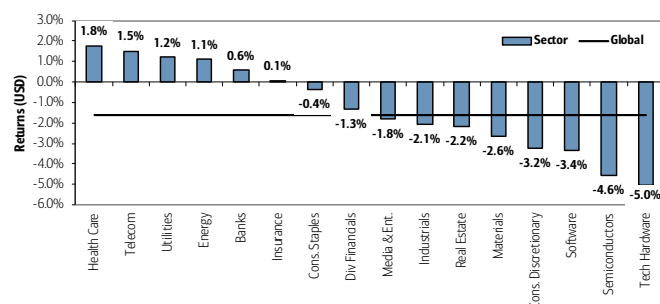


Source : BofA Global Quantitative Strategy, MSCI

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Chart 3: Global Sectors Performance: Last Week

Best performing sector last week was Health Care

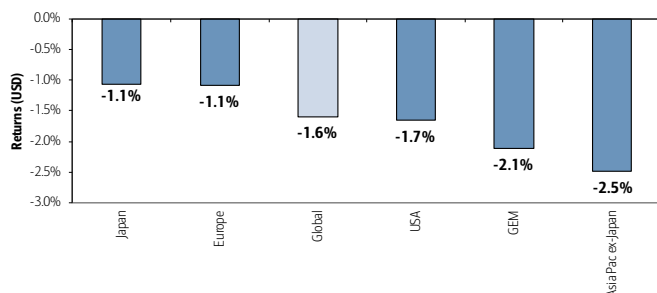


Source : BofA Global Quantitative Strategy, MSCI

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Chart 4: Global Regions Performance: MTD

MTD: Japan performed the best

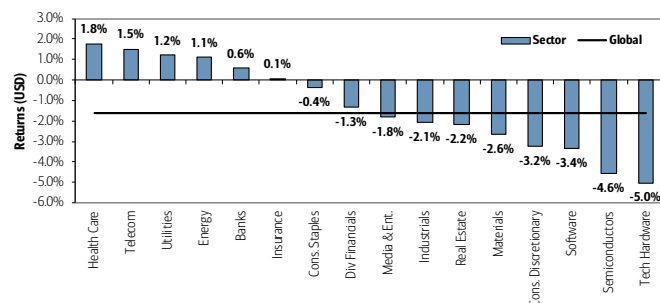


Source : BofA Global Quantitative Strategy, MSCI

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Chart 5: Global Sectors Performance: MTD

MTD: Health Care has performed the best

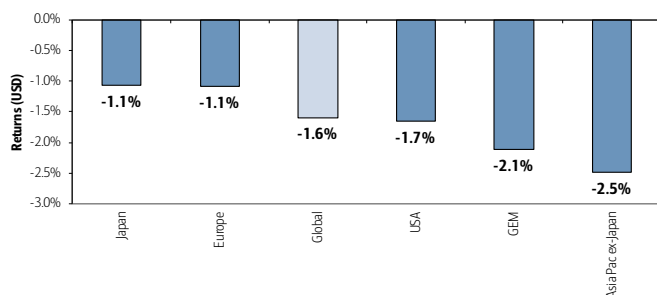


Source : BofA Global Quantitative Strategy, MSCI

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Chart 6: Global Regions Performance: YTD

Best performing region this year is Japan

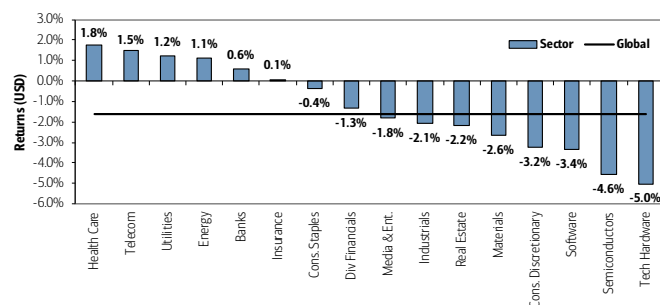


Source : BofA Global Quantitative Strategy, MSCI

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Chart 7: Global Sectors Performance: YTD

YTD: Health Care 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 Health Care

	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	1.9%	-2.3%	-1.3%	-3.0%	-0.8%	n/a	-1.1%	-4.1%	-0.8%	-0.7%	n/a	n/a	0.3%	n/a	0.5%	-1.8%	-1.0%
USA	1.0%	-1.5%	-2.2%	-3.5%	0.0%	2.0%	1.8%	-1.1%	1.5%	-3.4%	-5.2%	-4.1%	4.7%	-1.9%	1.8%	-1.9%	-1.7%
Belgium	n/a	-1.5%	n/a	-3.8%	0.1%	2.4%	3.0%	-1.8%	-0.3%	n/a	n/a	n/a	n/a	n/a	-2.2%	-4.9%	0.3%
Finland	0.0%	1.2%	-0.1%	n/a	1.2%	4.0%	3.9%	n/a	-0.4%	n/a	3.6%	n/a	1.8%	n/a	6.7%	n/a	1.9%
France	0.8%	-3.4%	-2.2%	-5.6%	-3.6%	1.5%	0.6%	-1.8%	0.7%	-4.2%	n/a	-9.9%	3.3%	0.3%	1.4%	-1.6%	-2.2%
Germany	n/a	-3.3%	-4.0%	-2.3%	-1.3%	0.1%	8.4%	0.0%	0.9%	-2.5%	n/a	-7.6%	2.5%	-0.6%	0.2%	-5.9%	-1.8%
Italy	0.2%	n/a	1.7%	-2.8%	-3.2%	-3.2%	4.0%	-4.8%	1.9%	n/a	n/a	n/a	-0.9%	n/a	-0.6%	n/a	0.2%
Netherlands	n/a	-5.1%	-2.1%	0.5%	-0.9%	1.3%	-2.2%	-3.2%	1.1%	n/a	n/a	-6.1%	-0.2%	-2.9%	n/a	n/a	-3.6%
Norway	2.3%	-3.3%	3.0%	n/a	2.3%	n/a	-1.1%	n/a	-3.4%	n/a	n/a	n/a	3.2%	-0.8%	n/a	n/a	0.7%
Spain	1.7%	n/a	-1.0%	-4.1%	n/a	-6.3%	3.4%	n/a	n/a	n/a	n/a	n/a	0.0%	n/a	0.5%	n/a	0.3%
Sweden	n/a	-1.9%	-5.9%	-5.8%	1.1%	-1.2%	0.3%	-4.2%	n/a	n/a	-3.7%	n/a	3.1%	n/a	n/a	-6.1%	-4.2%
Switzerland	n/a	-5.0%	-3.1%	-4.0%	0.3%	2.5%	0.2%	-3.1%	-0.6%	-4.1%	-2.1%	n/a	1.2%	n/a	0.5%	-1.6%	-0.4%
UK	0.5%	-3.0%	-1.5%	-1.5%	0.7%	2.6%	-0.2%	-3.6%	-3.8%	-2.9%	-7.1%	n/a	1.2%	-1.0%	1.5%	-1.9%	-0.4%
Australia	-0.5%	-4.1%	-1.2%	-2.5%	-1.7%	-1.2%	-1.2%	-3.0%	0.3%	-6.9%	n/a	n/a	-3.0%	-4.1%	-1.4%	-4.7%	-2.4%
Hong Kong	n/a	n/a	-4.1%	-1.2%	-2.7%	n/a	-4.1%	-4.6%	-5.4%	n/a	n/a	n/a	-0.6%	n/a	-0.9%	-3.7%	-3.9%
Japan	2.9%	-2.4%	-0.7%	-0.5%	-0.9%	-0.3%	1.8%	1.8%	0.4%	-2.5%	-3.8%	-7.1%	-1.6%	-2.2%	1.7%	-0.1%	-1.1%
Singapore	n/a	n/a	-2.7%	-2.0%	-1.7%	n/a	-1.8%	-2.1%	n/a	n/a	n/a	n/a	-5.4%	-6.4%	-0.6%	-3.9%	-2.8%
China	4.3%	-2.2%	-2.1%	-3.7%	-5.8%	-5.9%	-0.9%	-2.5%	-2.2%	-8.7%	-6.2%	-7.3%	-2.6%	-0.6%	2.4%	-5.3%	-2.7%
India	1.5%	-2.5%	2.5%	-0.2%	0.5%	2.8%	-0.1%	4.2%	0.4%	-1.5%	n/a	n/a	1.3%	2.1%	2.4%	6.5%	0.6%
Korea	-5.4%	-5.9%	-4.0%	-8.9%	-3.9%	0.7%	-7.8%	-7.7%	-7.5%	-11.5%	-4.5%	-4.9%	-3.9%	-1.5%	-2.4%	n/a	-4.8%
Taiwan	-2.4%	-2.5%	0.7%	-3.6%	-2.8%	-0.2%	-2.0%	-3.0%	-3.0%	n/a	-4.8%	n/a	-1.5%	n/a	n/a	-0.2%	-3.9%
Brazil	2.8%	-3.3%	-3.4%	-2.8%	-1.6%	-3.2%	-1.3%	-3.7%	-0.2%	-4.5%	n/a	n/a	-5.2%	n/a	-2.7%	n/a	-1.5%
Mexico	n/a	-3.1%	-3.1%	n/a	-1.8%	n/a	0.4%	n/a	n/a	n/a	n/a	n/a	-2.2%	n/a	n/a	n/a	-1.9%
South Africa	-5.6%	-9.6%	-6.6%	-3.5%	-4.1%	n/a	-4.2%	-5.1%	-4.7%	n/a	n/a	n/a	-3.5%	n/a	n/a	n/a	-5.4%
Global Sector	1.1%	-2.6%	-2.1%	-3.2%	-0.4%	1.8%	0.6%	-1.3%	0.1%	-3.4%	-5.0%	-4.6%	1.5%	-1.8%	1.2%	-2.2%	-1.6%
Europe Sector	0.7%	-3.4%	-2.7%	-3.7%	-0.4%	2.2%	1.4%	-2.8%	-0.2%	-3.0%	-2.3%	-6.6%	1.7%	-1.0%	-4.9%	-3.6%	-1.1%
APxJ Sector	1.0%	-3.6%	-1.4%	-3.4%	-2.4%	-1.6%	-1.1%	-1.2%	-3.1%	-3.0%	-4.8%	-4.7%	-1.5%	-1.1%	1.0%	-3.7%	-2.5%
GEM Sector	1.4%	-3.2%	-1.2%	-3.5%	-2.1%	-1.8%	-0.4%	-0.5%	-2.3%	-2.5%	-4.8%	-4.7%	-0.8%	-0.7%	0.7%	-2.6%	-2.1%

Source : BofA Global Quantitative Strategy, MSCI

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Style Performance

Chart 8: Global Quantessential Style Rel Performance: Last Week

Dividend was the best performing style last week

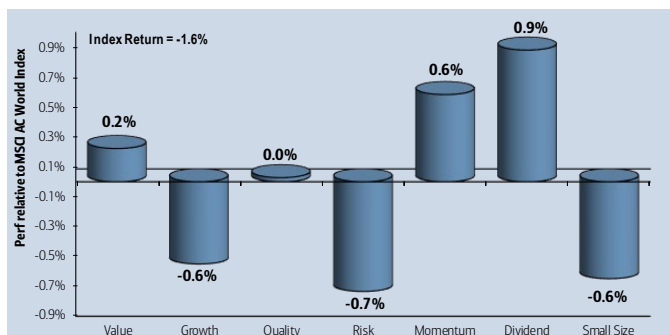

 Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg
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Chart 9: Asia Pac Quantessential Style Rel Performance: Last Week

Last week: Risk performed the best

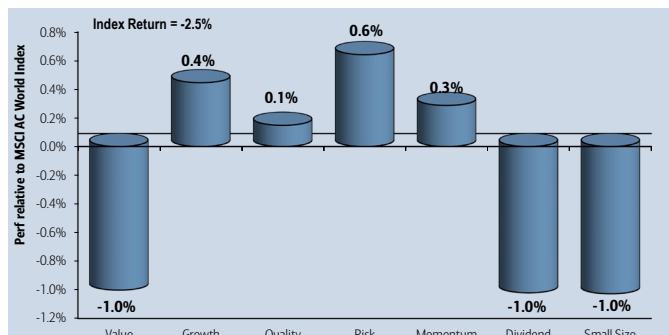

 Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg
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Chart 10: Global Quantessential Style Relative Performance: MTD

Dividend is the best performing style this month

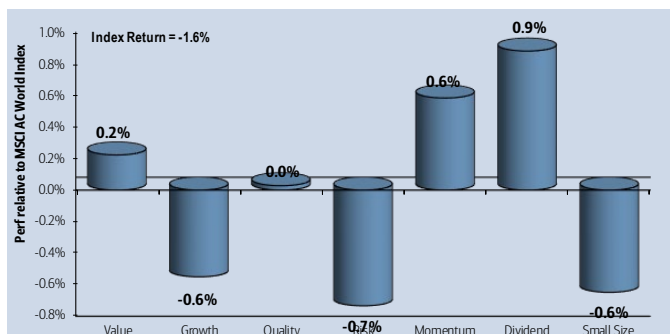

 Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg
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Chart 11: Asia Pac Quantessential Style Relative Performance: MTD

Risk is the best performing style this month

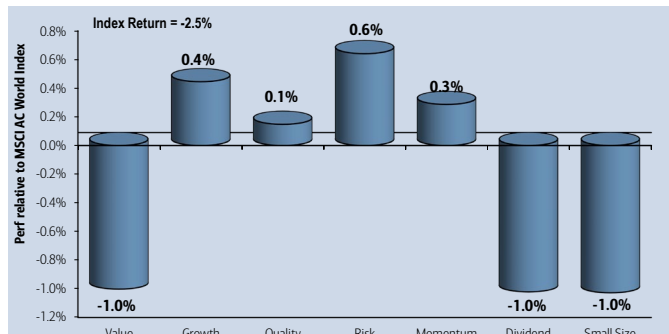

 Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg
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Chart 12: Global Quantessential Style Relative Performance: YTD

YTD: Dividend is the best performing style

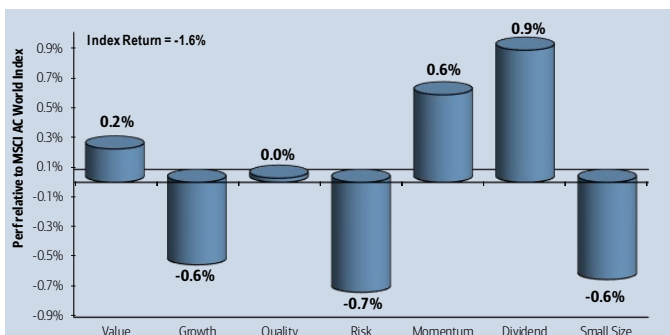
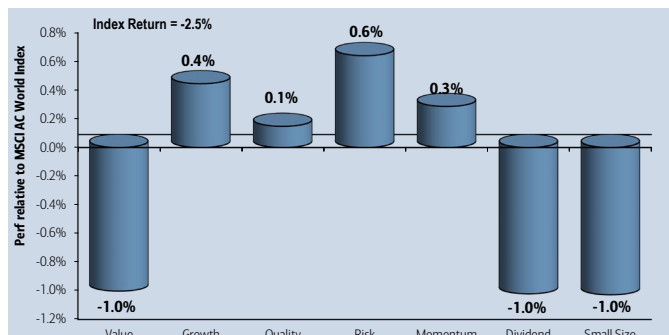

 Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg
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Chart 13: Asia Pac Quantessential Style Relative Performance: YTD

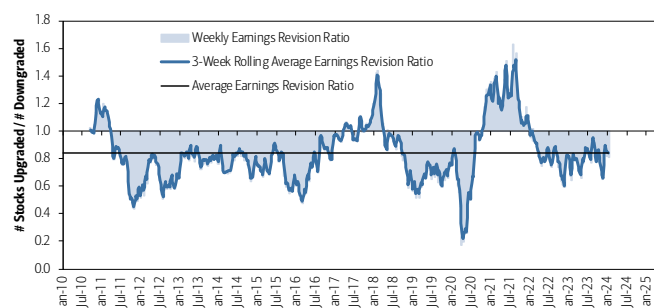
Risk performed the best YTD


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

Chart 14: Global Earnings Revision Ratio - Weekly

Earnings revisions fell in World last week

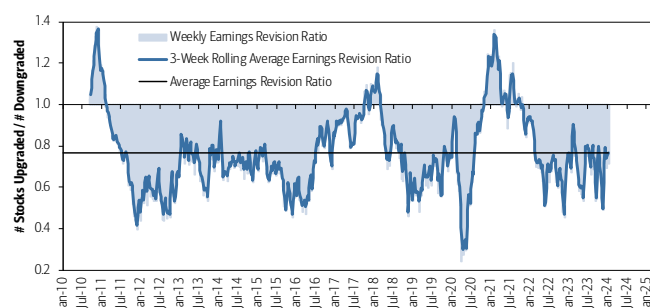


Source : BofA Global Quantitative Strategy, MSCI, IBES

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Chart 15: Asia Pac Earnings Revision Ratio - Weekly

Earnings revisions for Asia Pac ex-Japan fell last week and remains below long term trend

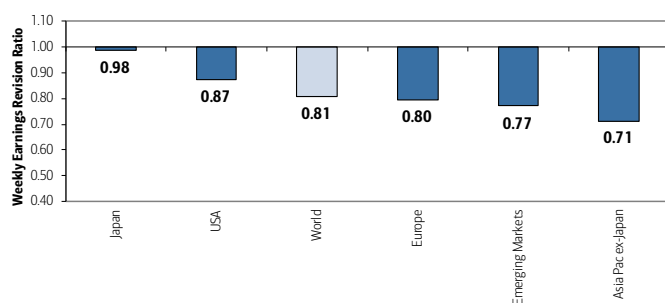


Source : BofA Global Quantitative Strategy, MSCI, IBES

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Chart 16: Global Regions Earnings Revision Ratio - Weekly

Asia Pac ex-Japan has the weakest earnings trend

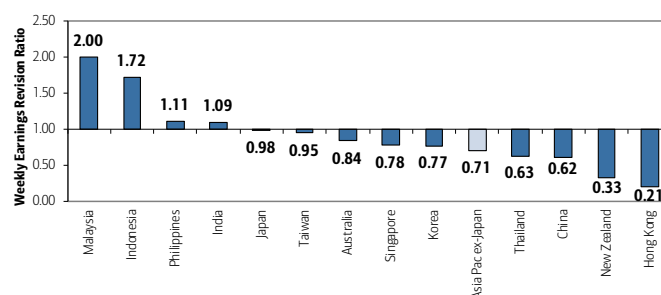


Source : BofA Global Quantitative Strategy, MSCI, IBES

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Chart 17: Asia Pac Countries Earnings Revision Ratio - Weekly

4 countries in Asia have a ERR >1.0

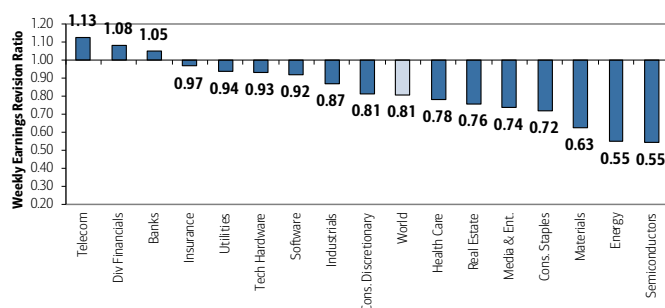


Source : BofA Global Quantitative Strategy, MSCI, IBES

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Chart 18: Global Sectors Earnings Revision Ratio - Weekly

Earnings Revision Ratio is strongest in Telecom sector globally

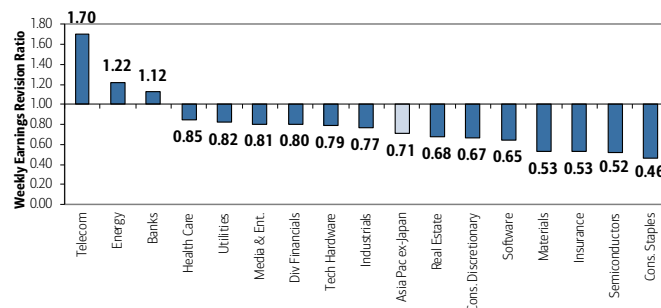


Source : BofA Global Quantitative Strategy, MSCI, IBES

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Chart 19: Asia Pac Sectors Earnings Revision Ratio - Weekly

Earnings trend is strongest in Telecom and weakest in Cons. Staples



Source : BofA Global Quantitative Strategy, MSCI, IBES

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

Earnings revisions fell in World last week

Regions/Sectors	Oct-23	Nov-23	Dec-23	Jan-24 - Wk1	Jan-24 - Wk2	Jan-24 - Wk3
World	0.74	0.66	0.82	0.87	0.85	0.81
USA	0.65	0.72	0.93	0.98	0.96	0.87
Europe	0.76	0.73	0.70	0.85	0.87	0.80
Japan	1.19	1.05	1.25	0.89	0.99	0.98
Asia Pac ex-Japan	0.66	0.49	0.69	0.82	0.76	0.71
Emerging Markets	0.71	0.55	0.74	0.86	0.81	0.77
Global - Banks	0.80	0.94	1.03	1.27	1.23	1.05
Global - Cons. Discretionary	0.84	0.73	0.82	0.86	0.84	0.81
Global - Cons. Staples	0.74	0.61	0.75	0.78	0.79	0.72
Global - Div Financials	0.45	0.57	1.11	1.01	0.99	1.08
Global - Energy	1.29	1.31	0.59	0.49	0.46	0.55
Global - Health Care	0.73	0.58	0.81	0.83	0.82	0.78
Global - Industrials	0.81	0.70	0.90	0.94	0.96	0.87
Global - Insurance	1.38	1.33	1.16	1.00	1.07	0.97
Global - Materials	0.46	0.34	0.66	0.76	0.71	0.63
Global - Media & Ent.	0.83	0.57	0.76	0.92	0.83	0.74
Global - Real Estate	0.66	0.68	0.73	0.85	0.87	0.76
Global - Semiconductors	0.57	0.41	0.79	0.97	0.80	0.55
Global - Software	0.77	0.81	0.93	0.80	0.93	0.92
Global - Tech Hardware	0.69	0.54	0.67	0.96	0.88	0.93
Global - Telecom	0.86	0.81	0.76	1.27	1.26	1.13
Global - Utilities	0.87	0.76	0.95	0.69	0.70	0.94
Global - Value	0.93	0.73	0.90	0.90	0.92	0.86
Global - Growth	1.23	1.13	1.19	1.14	1.12	1.16
Global - Quality	0.82	0.77	1.11	1.14	1.15	1.06
Global - Risk	0.74	0.70	0.74	0.99	0.91	0.79
Global - Momentum	1.29	1.42	1.56	1.35	1.38	1.38
Global - Dividend	0.73	0.64	0.69	0.76	0.75	0.65
Global - Small Size	0.55	0.56	0.67	0.85	0.86	0.79

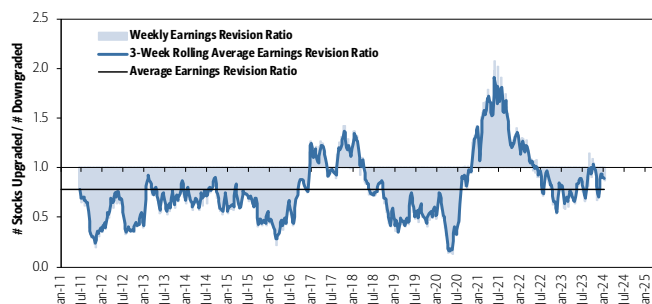
Source : BofA Global Quantitative Strategy, MSCI, IBES

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Quantessential Styles: Earnings Revision Ratio

Chart 20: Global Value Earnings Revision Ratio - Weekly

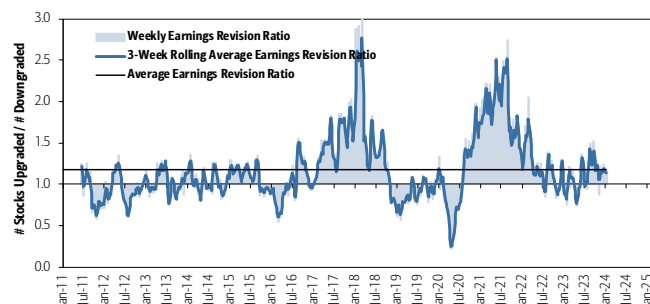
Earnings revisions fell in Value last week



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg
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Chart 21: Global Growth Earnings Revision Ratio - Weekly

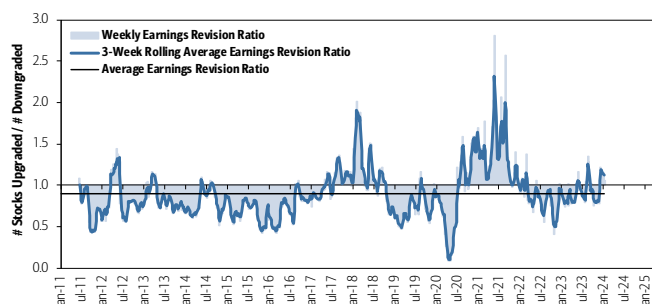
The trend is weak but earnings revisions improved in Growth last week



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg
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Chart 22: Global Quality Earnings Revision Ratio - Weekly

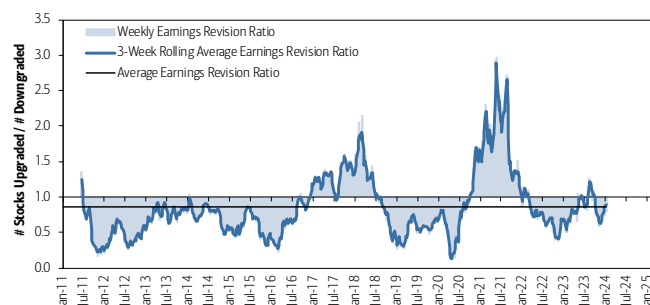
Earnings revision moderated in Quality last week but remains above average



Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg
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Chart 23: Global Risk Earnings Revision Ratio - Weekly

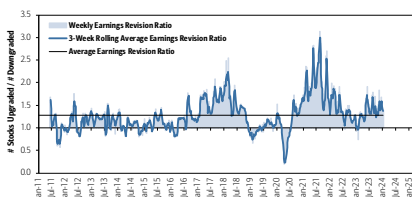
Earnings revisions fell in Risk last week, but the trend remains strong



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

Chart 24: Global Momentum Earnings Revision Ratio - Weekly

ERR fell in Momentum last week and the trend moderated



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

Chart 25: Global Dividend Earnings Revision Ratio - Weekly

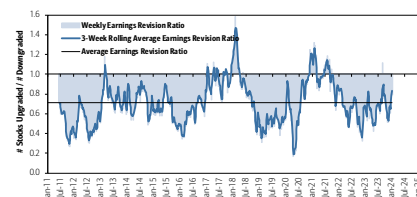
ERR fell in Dividend last week and the trend moderated



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

Chart 26: Global Small Size Earnings Revision Ratio - Weekly

Earnings revision moderated in Small Size last week but remains above average

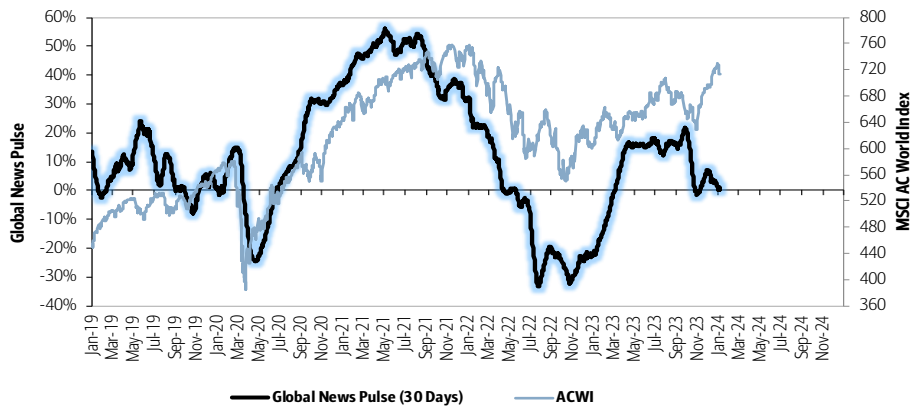


Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg
BofA GLOBAL RESEARCH

NewsAlpha

Chart 27: Global News Pulse (last 30 days)

News trend have trended negatively in the last month

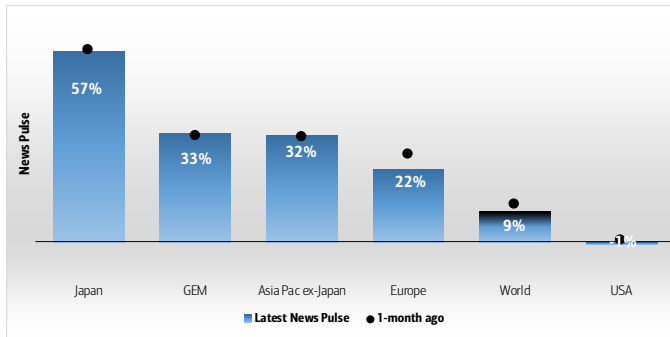


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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Chart 28: Global Regions: Latest News Pulse

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

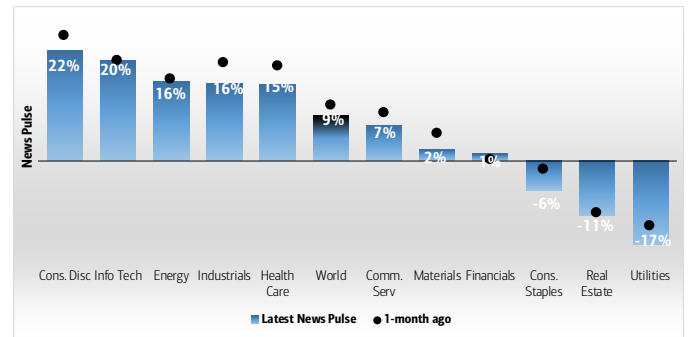


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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Chart 29: Global Sectors: Latest News Pulse

Cons. Disc has the strongest News Pulse, while Utilities has the lowest Pulse

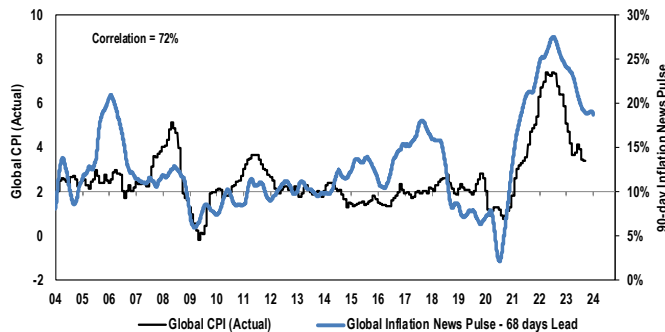


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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Chart 30: Inflation News Pulse vs. Global CPI

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

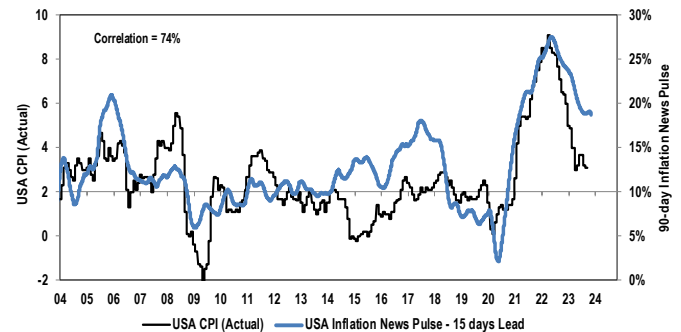


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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Chart 31: Inflation News Pulse vs. USA CPI

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



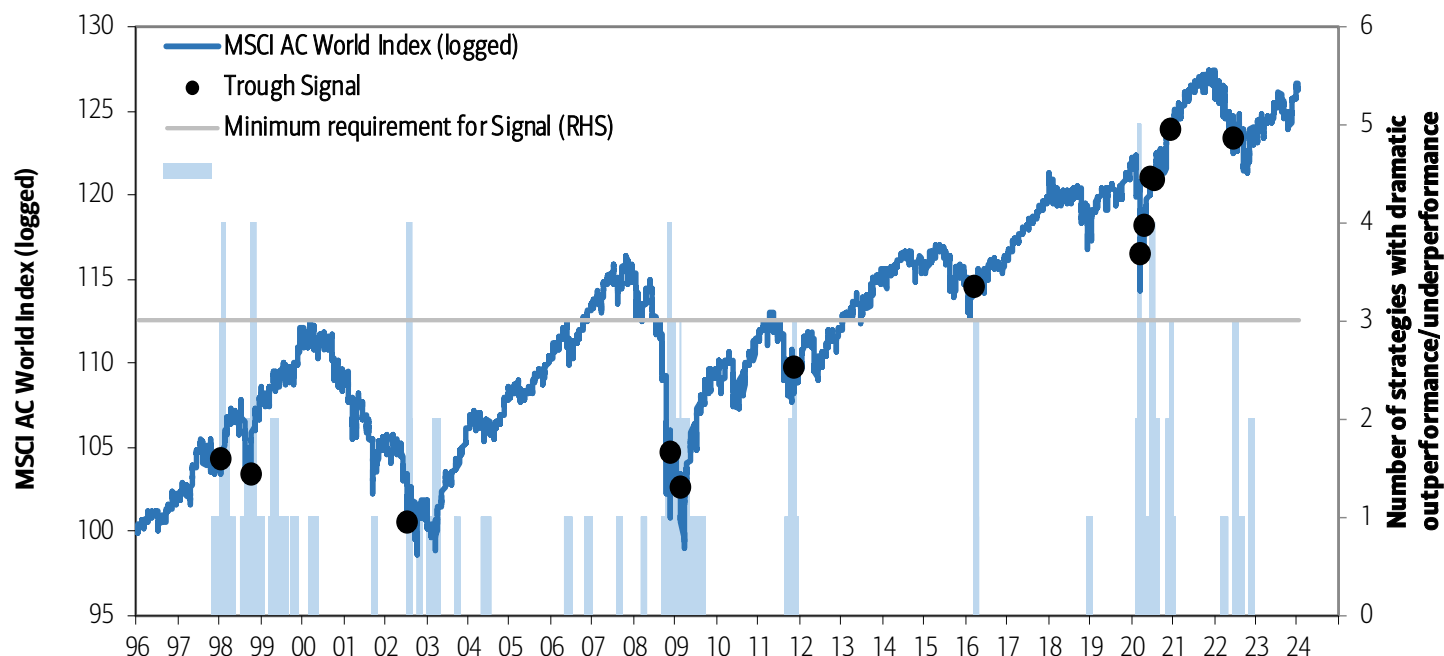
Source : BofA Global Quantitative Strategy, MSCI, Ravenpack

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Tactical Indicators

Chart 34: 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

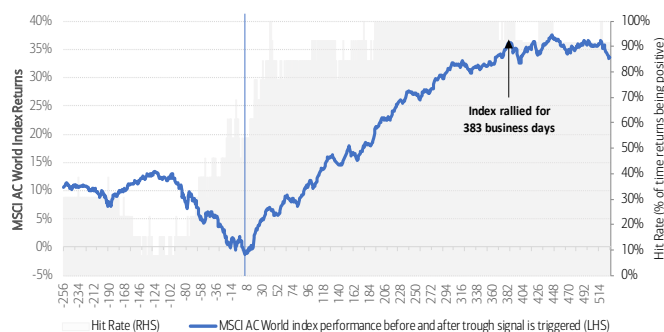


Source : BofA Global Quantitative Strategy, MSCI, Ravenpack, IBES, Worldscope, Exshare, S&P, Bloomberg

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Chart 35: 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%
Average	3.3%	8.7%	15.6%	27.7%
Hit Rate (Pos Returns)	62%	85%	92%	100%

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

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Chart 36: Copper (Spot), weekly last 2 years

Copper price fell (-1.2%)



Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 37: AUD-USD cross rate, weekly last 2 years

AUD depreciated (-1.5%)



Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 38: US Initial jobless claims, weekly last 2 years

US initial jobless claims fell by -18,000 to 202,000

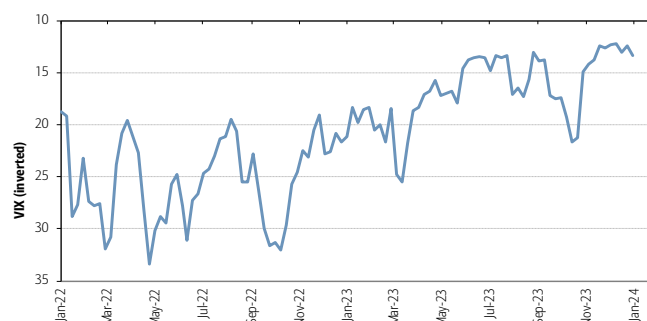


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 39: VIX (inverted), weekly last 2 years

VIX moved from 12.5 to 13.4



Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 40: Global Credit Spreads, weekly 2 years

Global credit spreads widened (+23 bps)

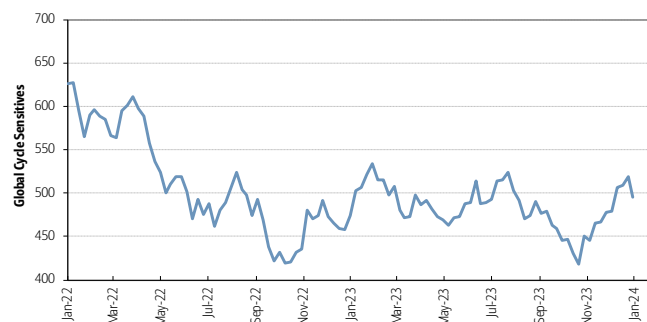


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 41: Global Cycle Sensitives, weekly returns 2 year

Global Cycle Sensitives underperformed (-4.6%)



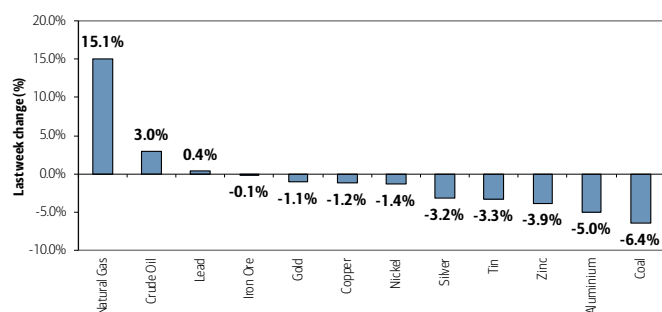
Source : BofA Global Quantitative Strategy, Bloomberg

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Commodities

Chart 42: Hard Commodities - Last week change

Coal fell the most last week

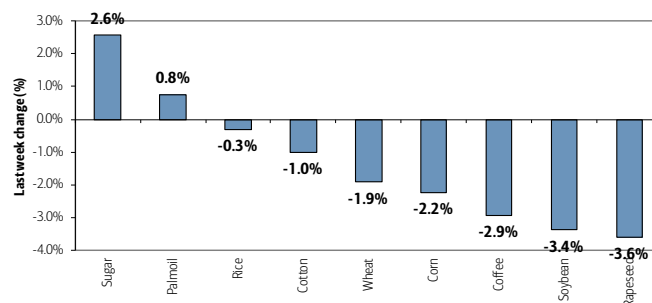


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 43: Soft Commodities - Last week change

Sugar increased the most last week

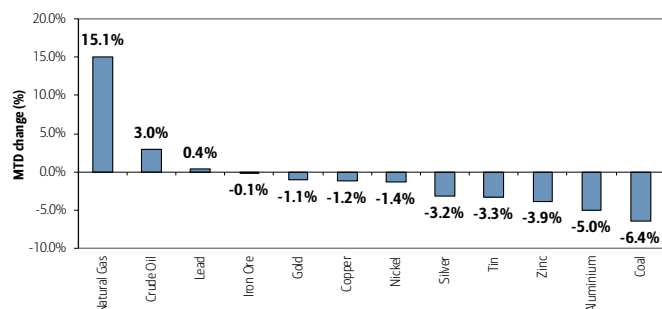


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 44: Hard Commodities - MTD change

Coal fell the most MTD

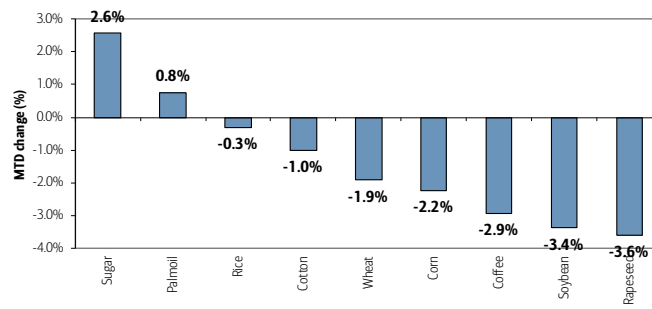


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 45: Soft Commodities - MTD change

Sugar increased the most MTD

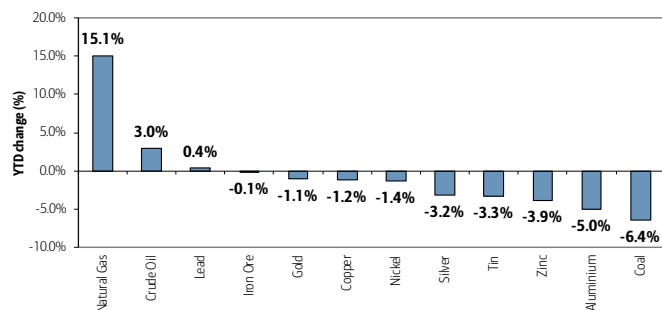


Source : BofA Global Quantitative Strategy, Bloomberg

BofA GLOBAL RESEARCH

Chart 46: Hard Commodities - YTD change

Natural Gas increased the most YTD

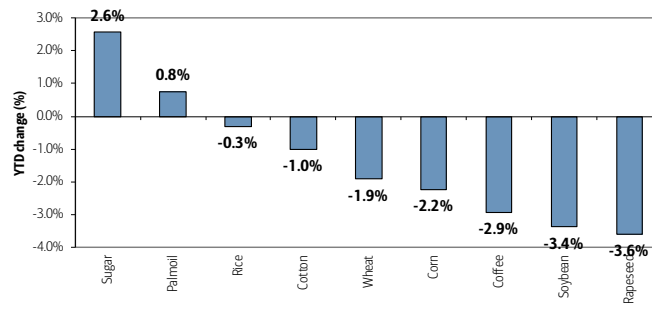


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 47: Soft Commodities - YTD change

Sugar increased the most YTD



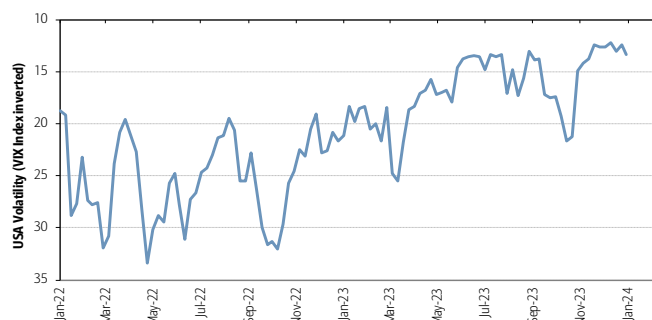
Source : BofA Global Quantitative Strategy, Bloomberg

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Volatility

Chart 48: USA Volatility (VIX Index) - Inverted

VIX Index moved from 12.5 to 13.4



Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 49: Europe Volatility (V2X Index) - Inverted

V2X Index moved from 13.6 to 14.1

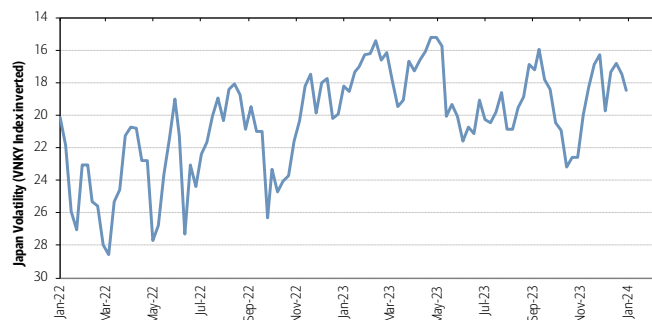


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 50: Japan Volatility (VNKY Index) - Inverted

VNKY Index moved from 17.5 to 18.5

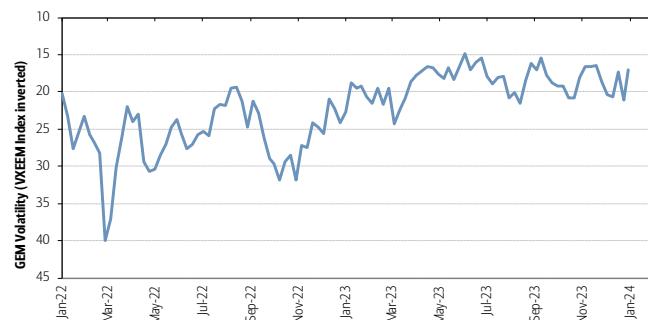


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 51: Emerging Markets Volatility (VXEEM Index) - Inverted

VXEEM Index moved from 21.1 to 17.1



Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 52: Hong Kong Volatility (VHSI Index) - Inverted

VHSI Index moved from 21.9 to 21.5



Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 53: Korea Volatility (VKOSPI Index) - Inverted

VKOSPI Index moved from 15.0 to 17.8



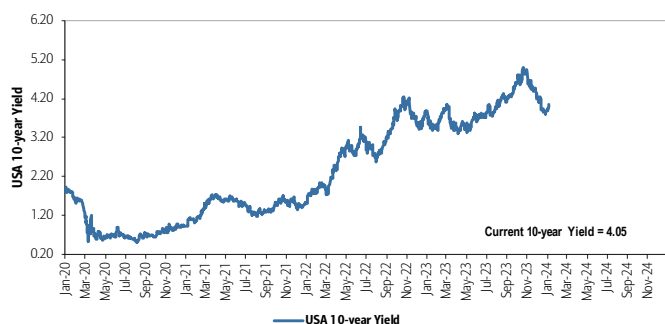
Source : BofA Global Quantitative Strategy, Bloomberg

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Rates

Chart 54: USA 10-year Bond Yield

US 10-year yield up by 17 bps to 4.05%

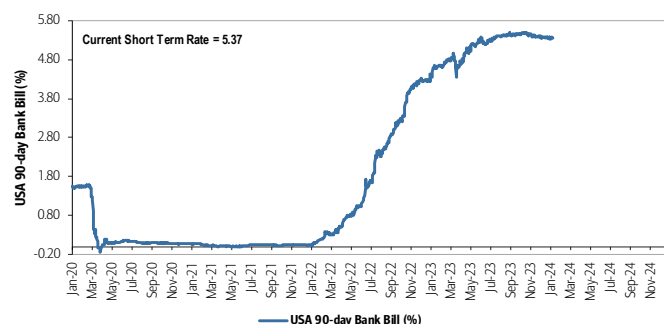


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 55: USA 90-day Bank Bill

US 90-day yield up by 3 bps to 5.37%

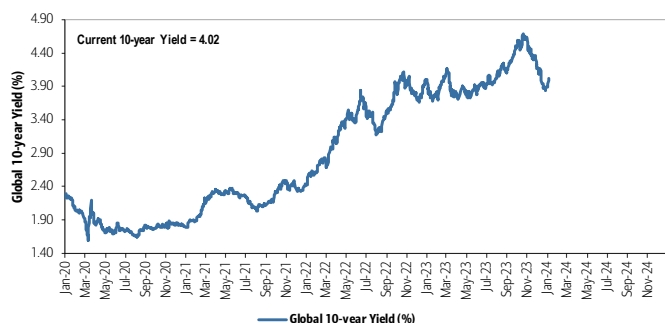


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 56: Global 10-year Bond Yield

Current 10-yr Global GDP weighted bond yield is 4.02%

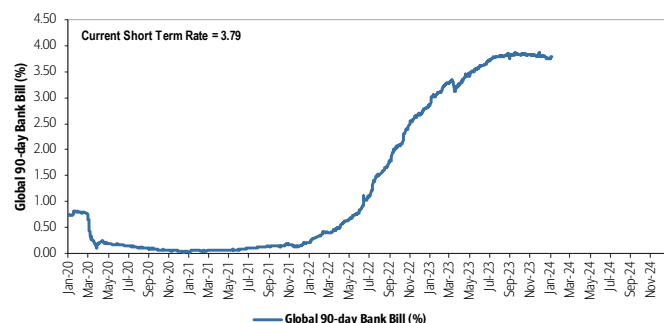


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 57: Global 90-day Bank Bill

Current 90d Global GDP weighted bond yield is 3.79%

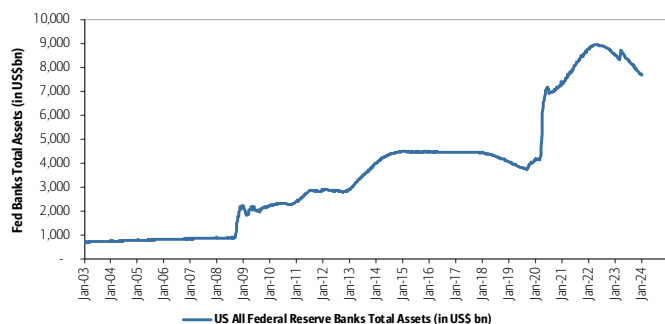


Source : BofA Global Quantitative Strategy, Bloomberg

BofA GLOBAL RESEARCH

Chart 58: US Federal Reserve Total Assets (in US\$ bn)

Last week, Fed Reserve's balance sheet reduced by US\$-43bn

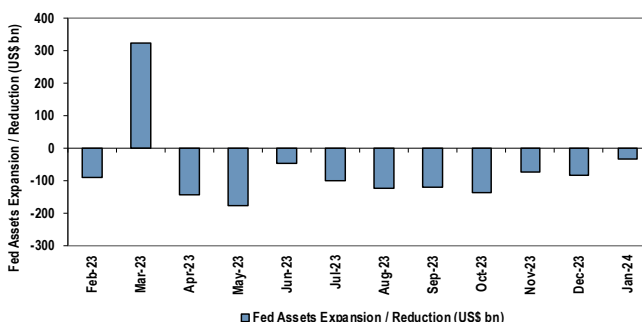


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 59: 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 60: China 10-year Bond Yield

Current China 10-year Yield = 2.53%

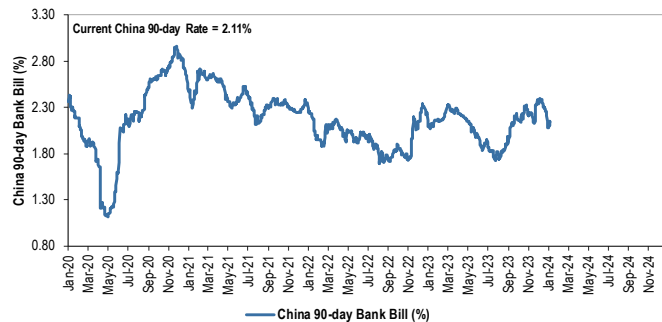


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 61: China 90-day Bank Bill

Current China 90-day Rate = 2.11%

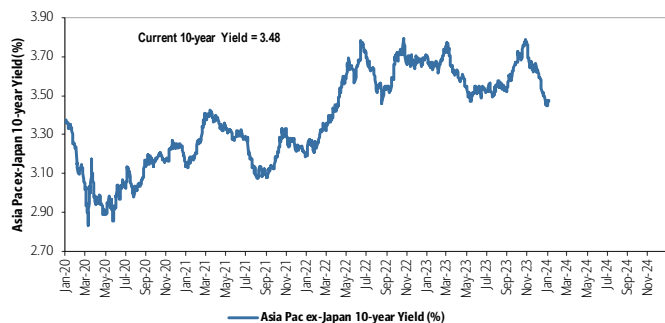


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 62: Asia Pac ex-Japan 10-year Bond Yield

Current 10-year Asia Pac GDP weighted bond yield is 3.48%

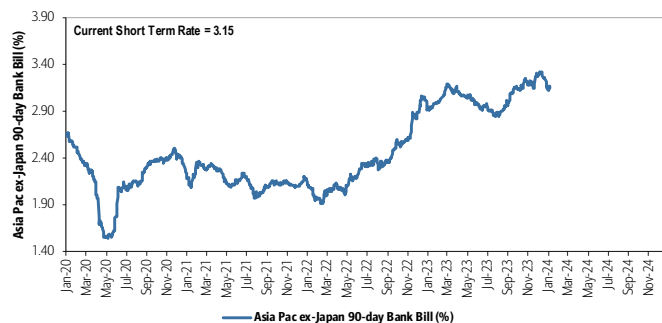


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 63: Asia Pac ex-Japan 90-day Bank Bill

Current 90d Asia Pac GDP weighted bond yield is 3.15%



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 64: Global Price-to-Book trailing

The latest Global Price-to-Book ratio is 2.78



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

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Chart 65: Global Prospective PE

The latest Global Prospective PE is 17.0

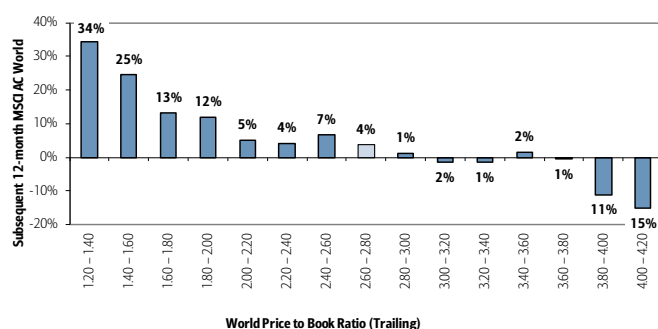


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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Chart 66: Global Price-to-Book trailing and ACWI subsequent 12m returns

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

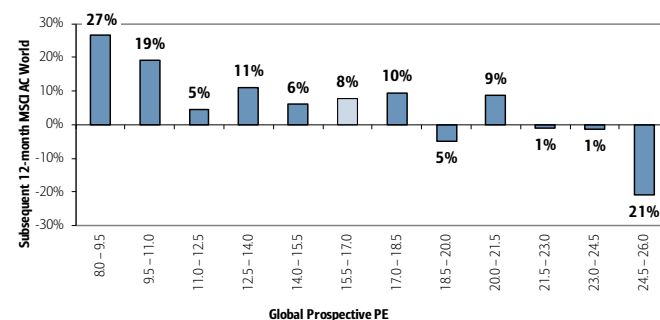


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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Chart 67: Global Prospective PE and ACWI subsequent 12m returns

For current PE level, MSCI ACWI returns 8% in the subsequent 12m on average

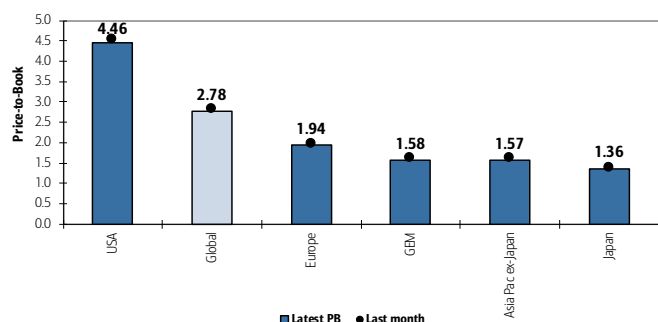


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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Chart 68: Price-to-Book: Global Regions

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

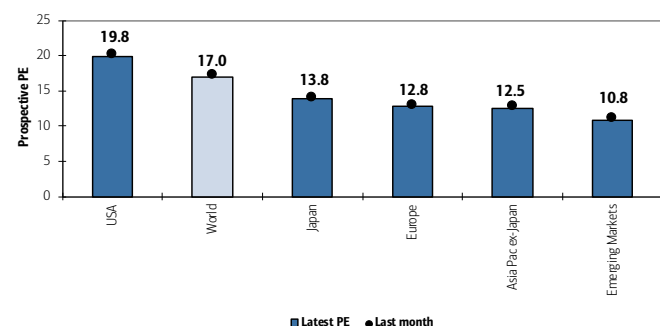


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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Chart 69: Global Prospective PE: 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

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 highest for Emerging ex-Asia - Real Estate and lowest for Emerging ex-Asia - Media & Ent.

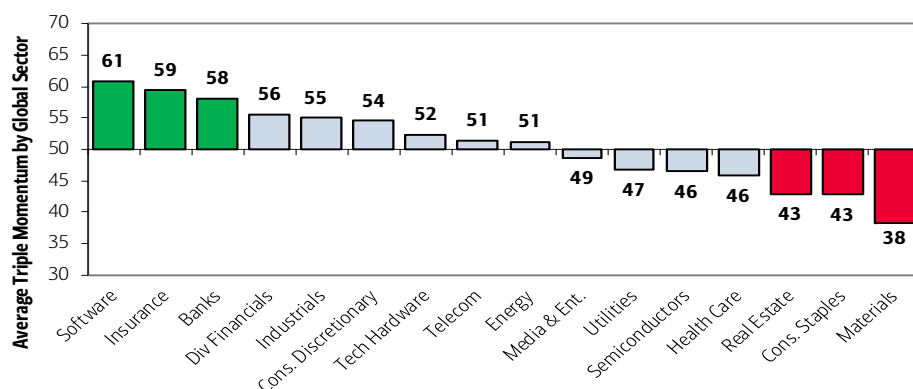
Average Triple Momentum Rank	Banks	Cons. Discretionary	Cons. Staples	Div Financials	Energy	Health Care	Industrials	Insurance	Materials	Media & Ent.	Real Estate	Semiconductors	Software	Tech Hardware	Telecom	Utilities	Region
Asia Pac ex-Japan	58	61	47	61	56	58	57	54	43	51	38	49	54	58	52	54	54
Emerging ex-Asia	74	58	53	82	60	68	61	72	37	17	89				55	63	61
Europe	53	46	42	54	25	43	52	48	28	61	37	48	66	40	50	47	46
Japan	76	61	48	61	80	51	61	80	57	33	68	52	62	47	50	77	58
United States	27	50	35	51	51	38	53	65	36	52	36	43	62	46	45	30	46
Global	58	54	43	56	51	46	55	59	38	49	43	46	61	52	51	47	

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

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Chart 70: Global Sectors - Average Triple Momentum Rank

Triple Momentum is currently strongest for Software, Insurance, and Banks



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

BofA GLOBAL RESEARCH

Table 6: Asia Pac ex-Japan Country-Sectors - Triple Momentum

Triple Momentum highest for Philippines - Industrials and lowest for Korea - Materials

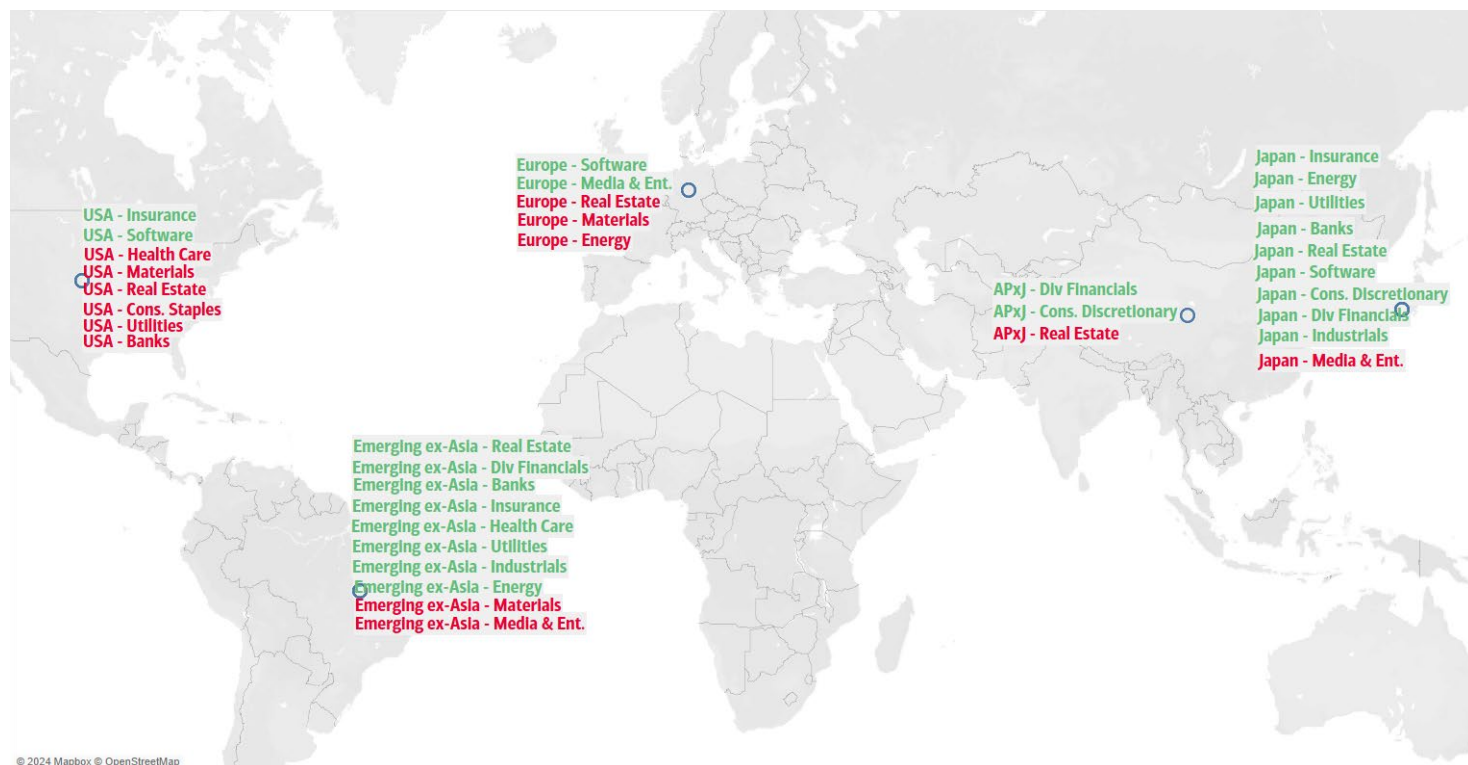
Average Triple Momentum Rank	Banks	Cons. Discretionary	Cons. Staples	Div Financials	Energy	Health Care	Industrials	Insurance	Materials	Media & Ent.	Real Estate	Semiconductors	Software	Tech Hardware	Telecom	Utilities	Country
Australia	55	37	28	40	37	64	35	62	52	61	43		68		31	20	46
China	36	56	41	56	56	55	51	16	41	39	40	25	13	68		45	48
Hong Kong	6	38		10		86	40	19		34	12	100				50	37
India	67	70	53	73	69	63	64	74	47	80	67		46		39	65	61
Indonesia	62	31	24		12		55		1						91		40
Malaysia	57	94	35		10	51	89		13			34			39	14	48
New Zealand						34							37		85		48
Philippines	70	51	61				94				82				63	96	77
Singapore	53	74	6	76			52			15	29				8	84	43
South Korea	68	71	63	64	59	57	45		22	43			44	35	49	86	51
Taiwan	63	41	56	90	59		44	51	27			60		52	56		51
Thailand	39	34	31	11	75	64	12		41		53			53	52	38	43
Asia Pac ex-Japan	55	56	44	58	54	58	52	46	40	44	42	50	49	52	50	52	

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

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Chart 71: 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 Emerging ex-Asia - Media & Ent.



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

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Chart 72: Asia Pac ex-Japan Country-Sectors with the highest average (green) and lowest average (red) Triple Momentum Rank
Triple Momentum highest for Philippines - Industrials and lowest for Korea - Materials



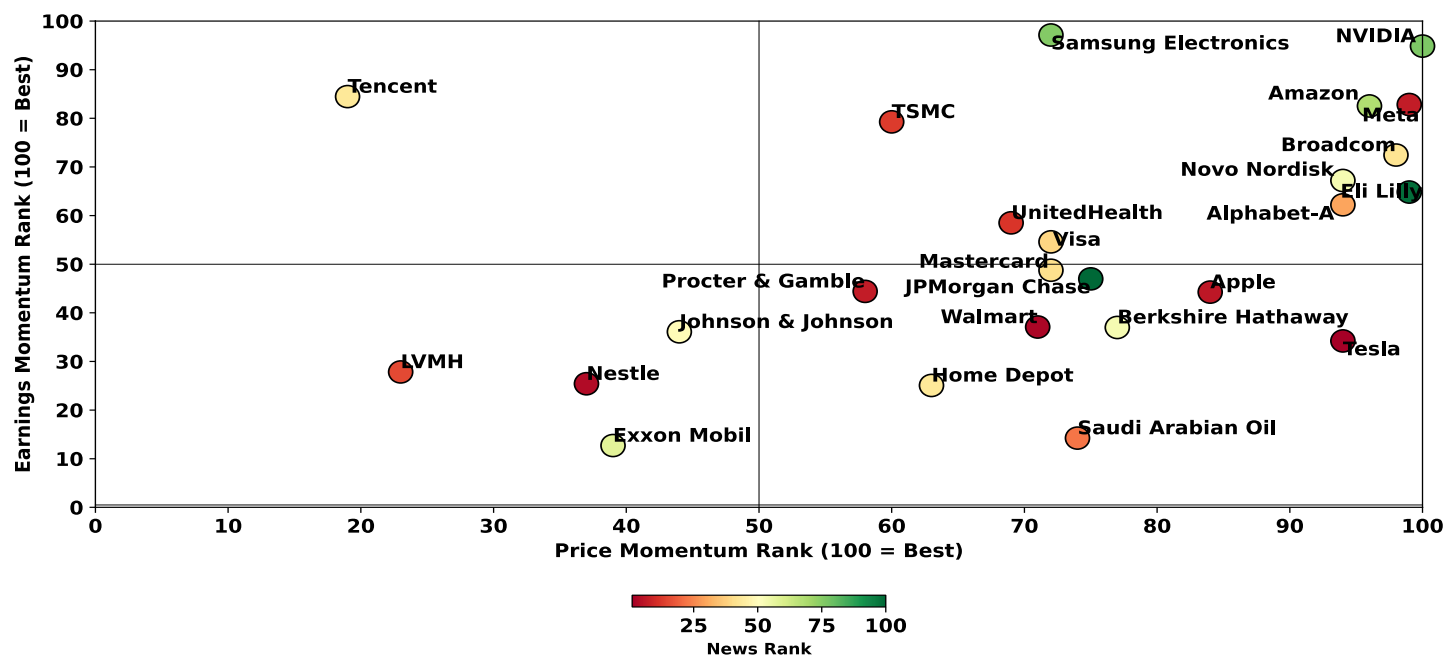
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

BofA GLOBAL RESEARCH

Global Regions: Triple Momentum Charts

Chart 73: Global: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

Triple Momentum is most positive for Eli Lilly, NVIDIA and Samsung Electronics

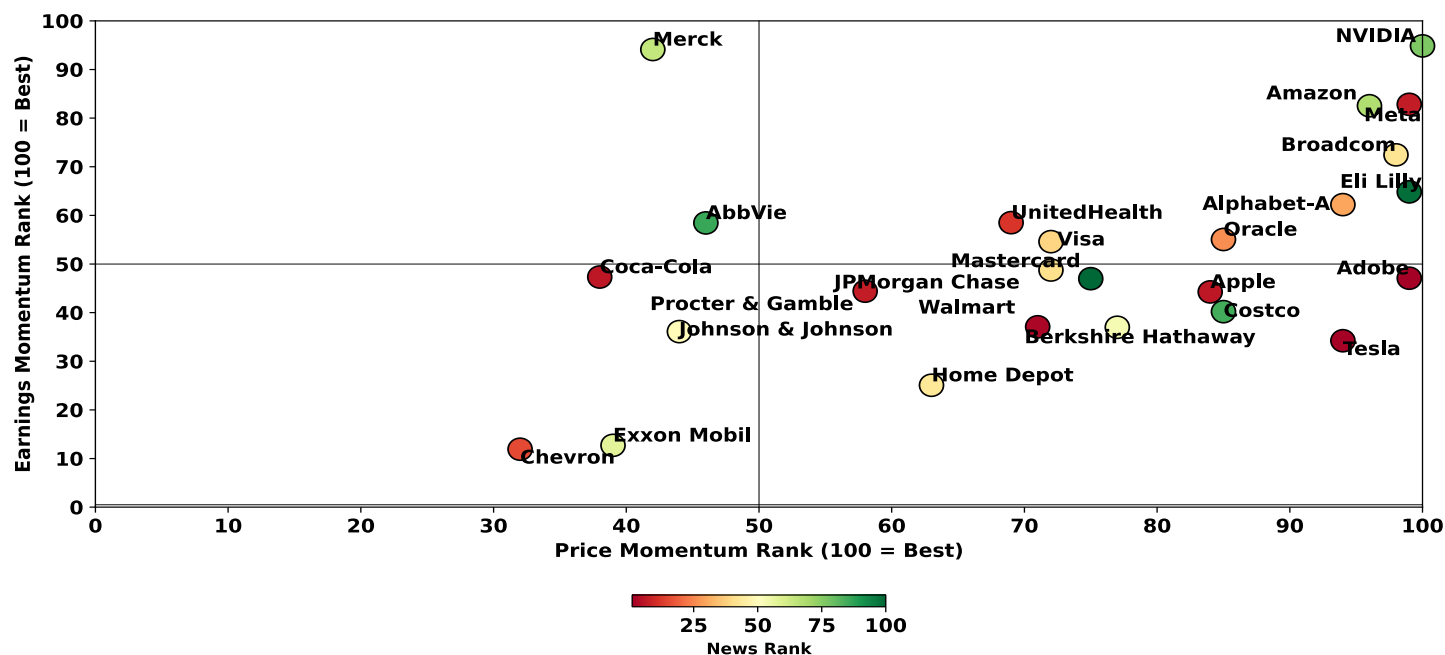


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 74: USA: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

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

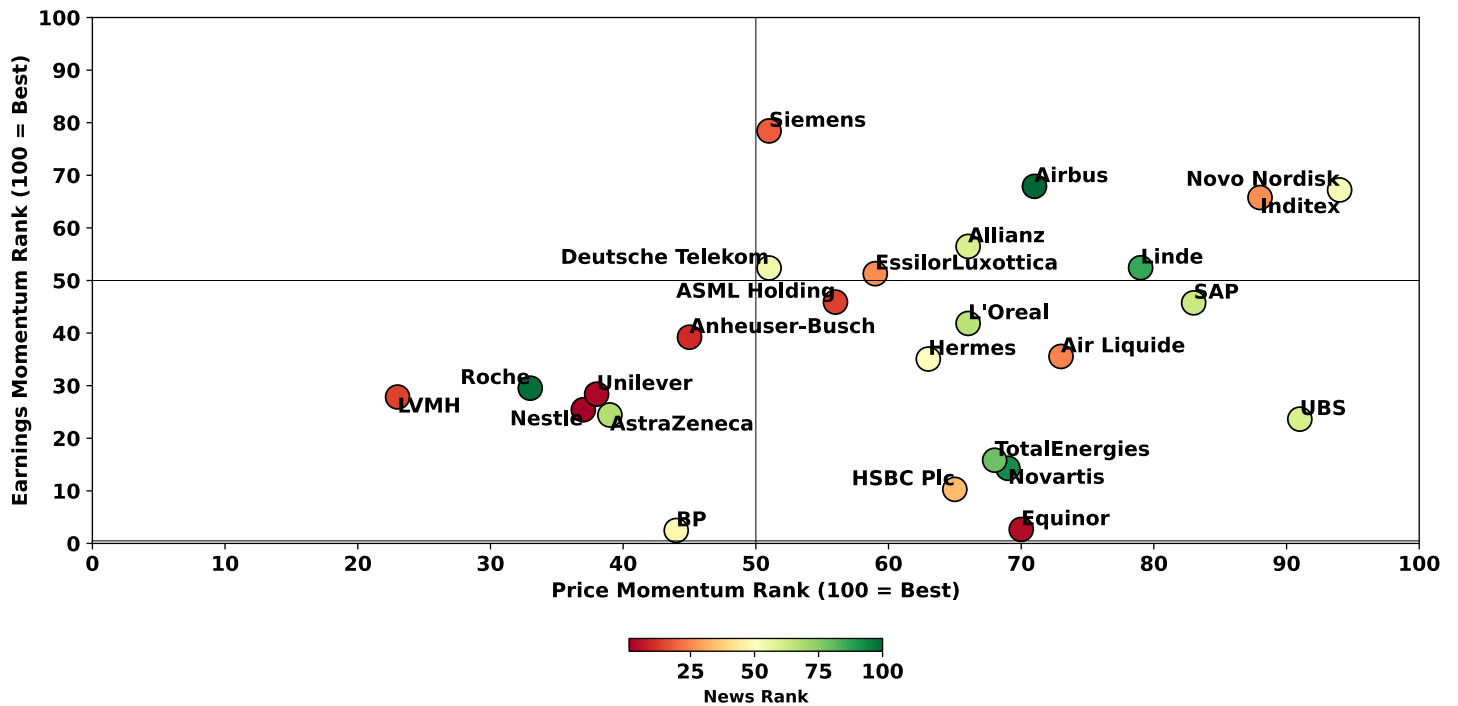


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 75: Europe: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

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

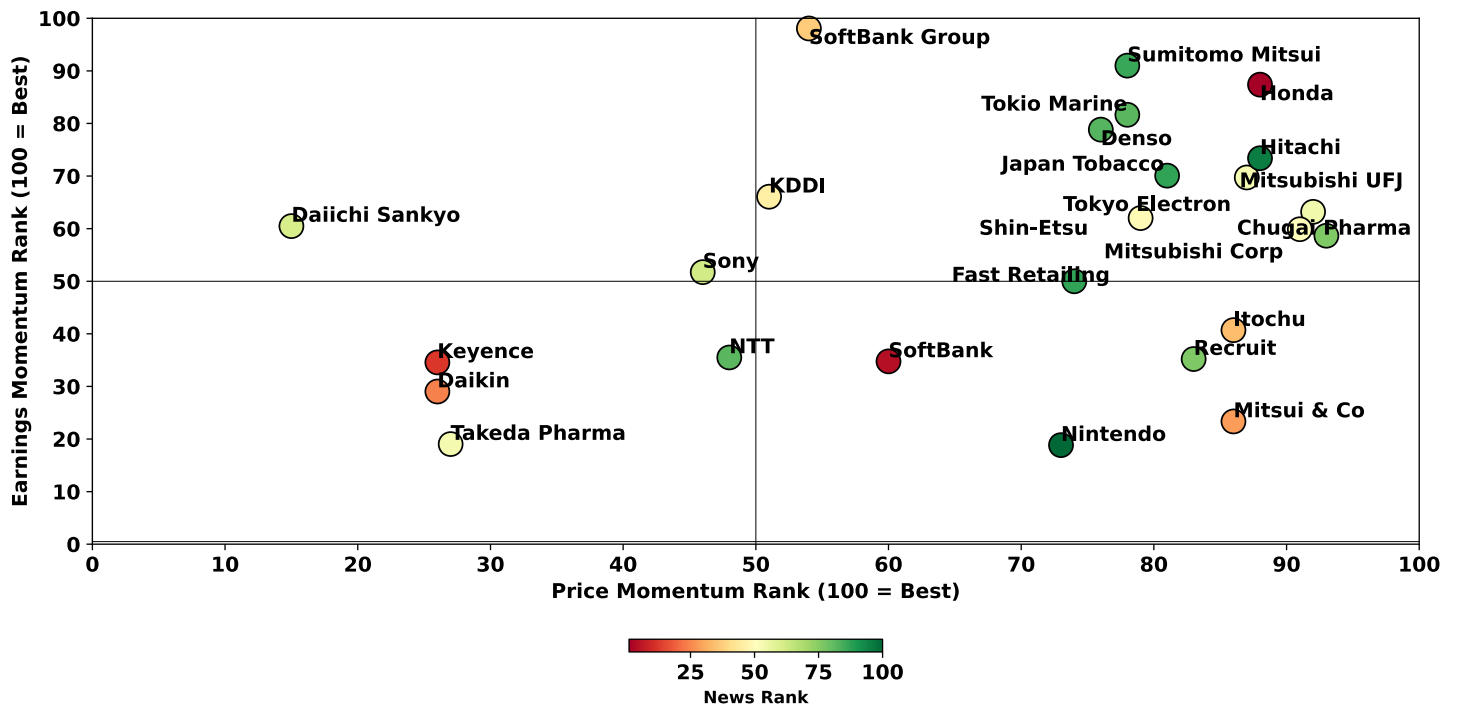


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 76: Japan: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

Triple Momentum is most positive for Hitachi, Sumitomo Mitsui and Tokio Marine

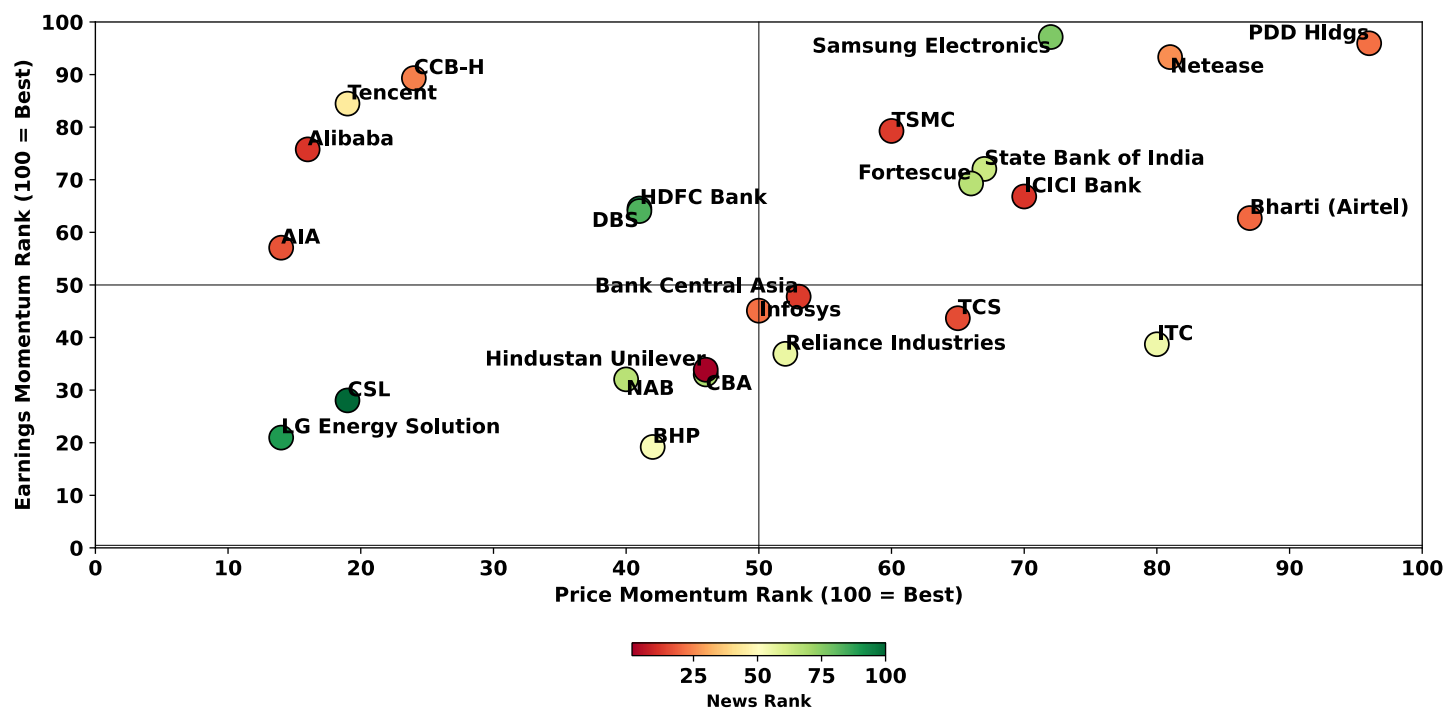


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

BofA GLOBAL RESEARCH

Chart 77: Asia Pac ex-Japan: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

Triple Momentum is most positive for Samsung Electronics, Fortescue and State Bank of India

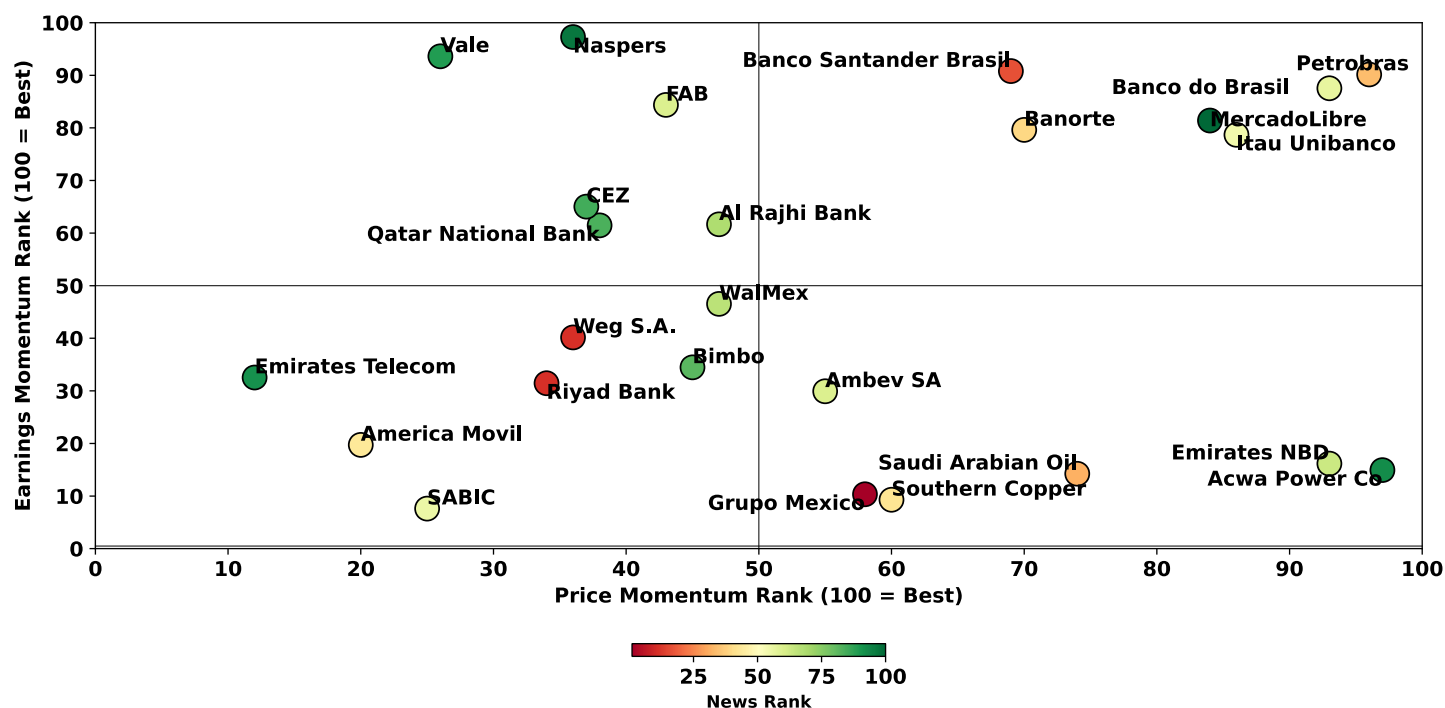


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 78: Emerging ex-Asia: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

Triple Momentum is most positive for MercadoLibre, Banco do Brasil and Itau Unibanco



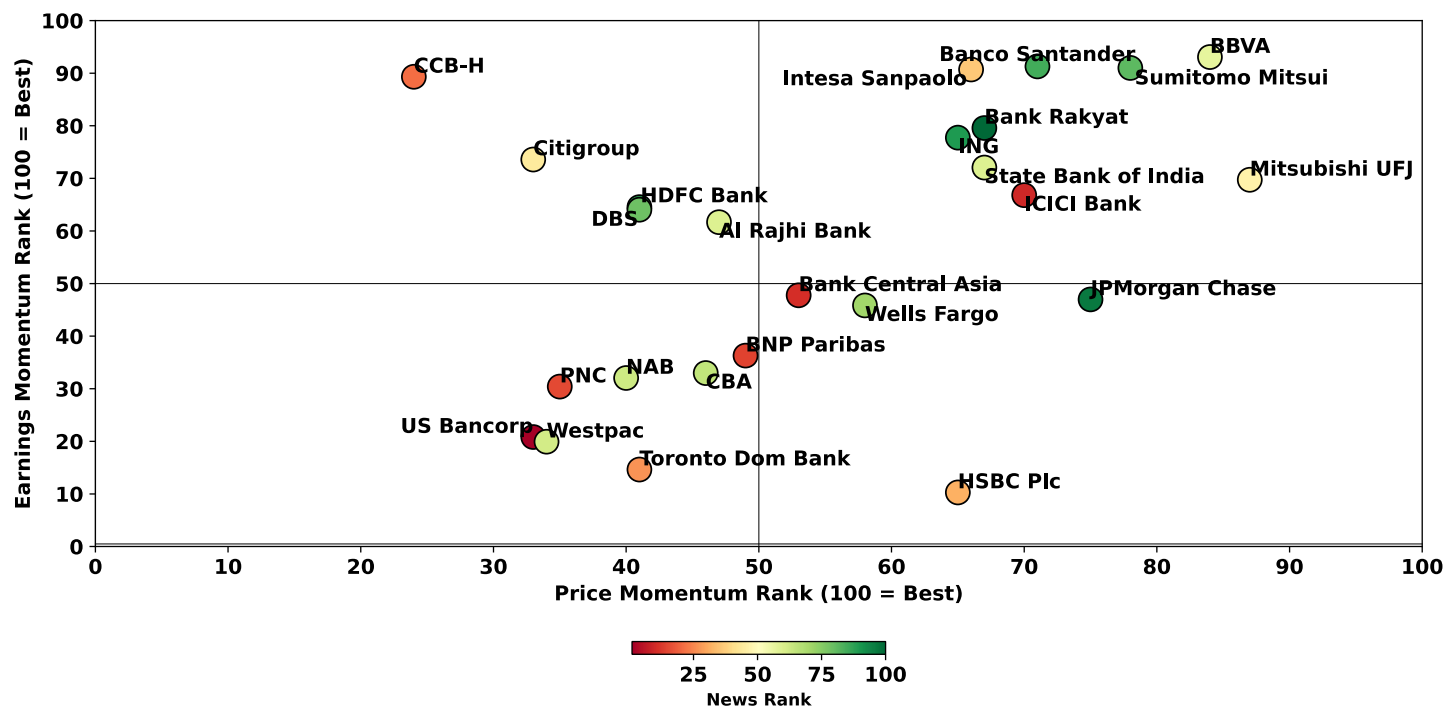
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

BofA GLOBAL RESEARCH

Global Sectors: Triple Momentum Charts

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

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

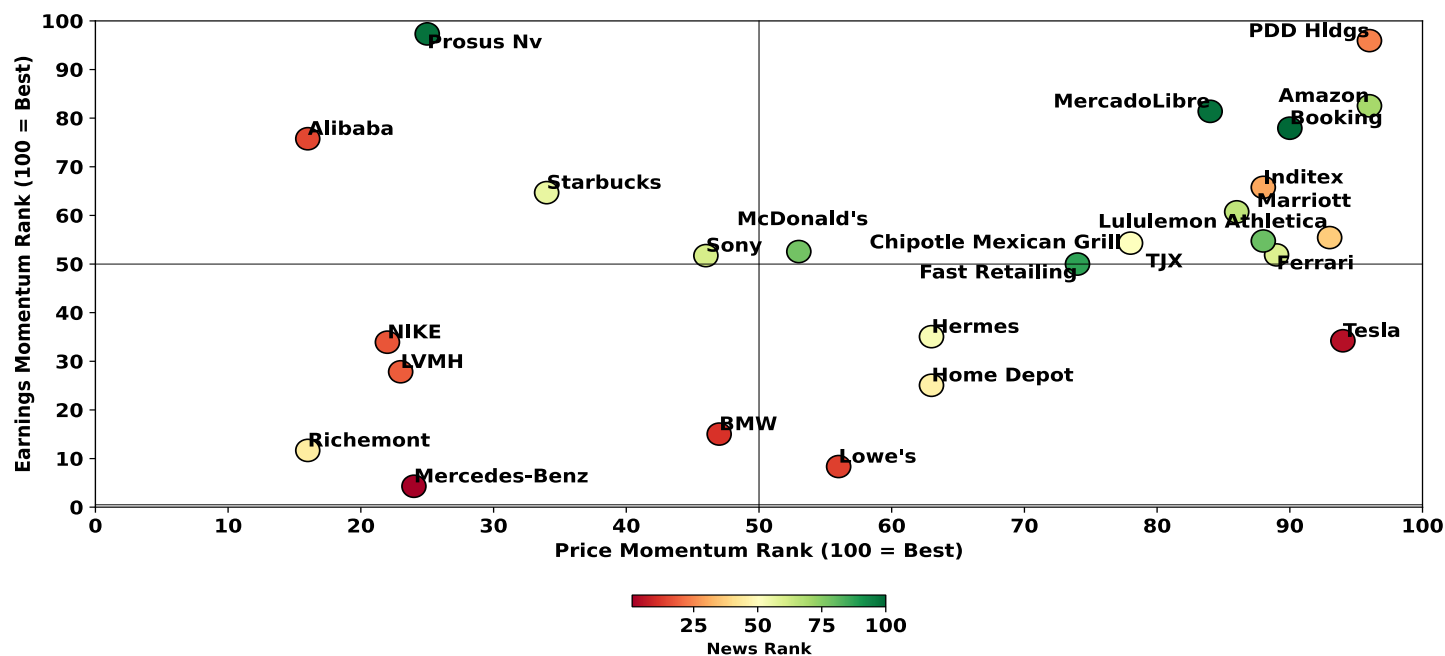


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 80: Consumer Discretionary: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

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

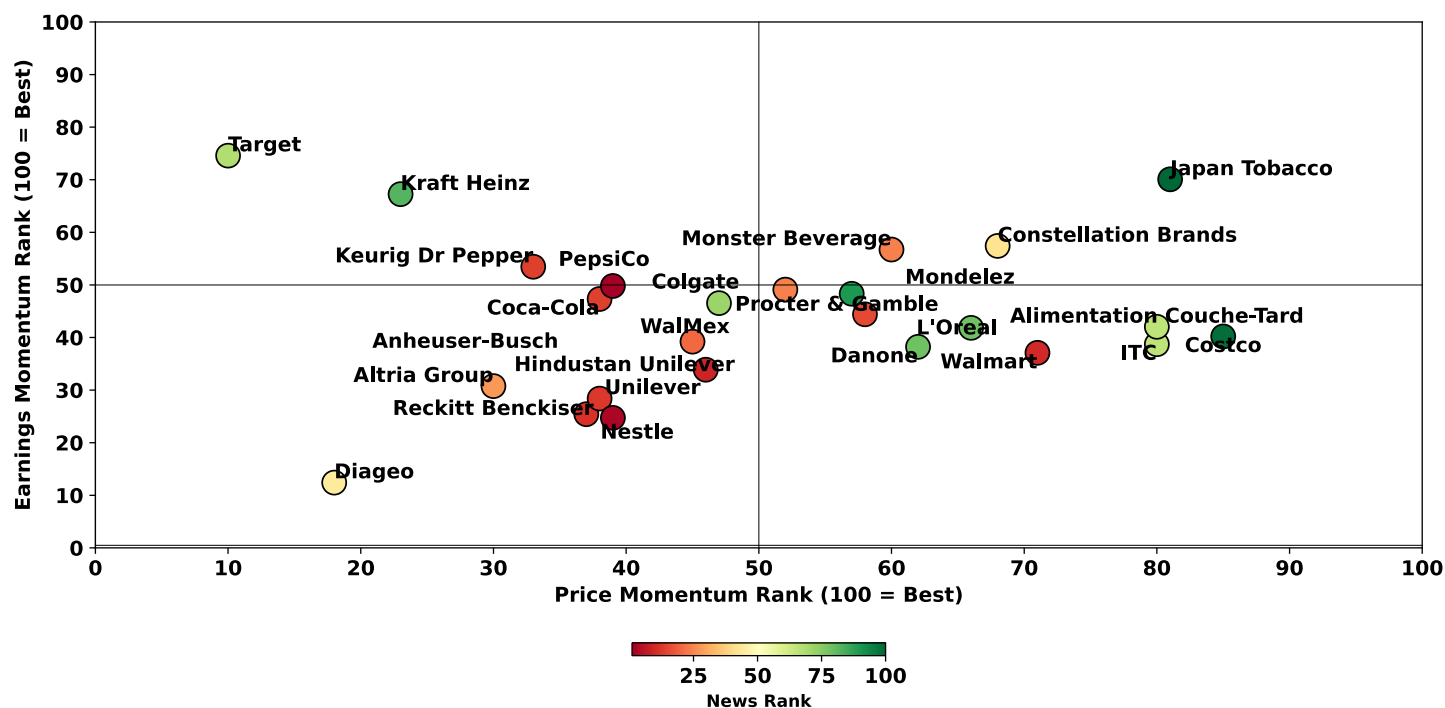


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 81: Consumer Staples: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

Triple Momentum is most positive for Japan Tobacco

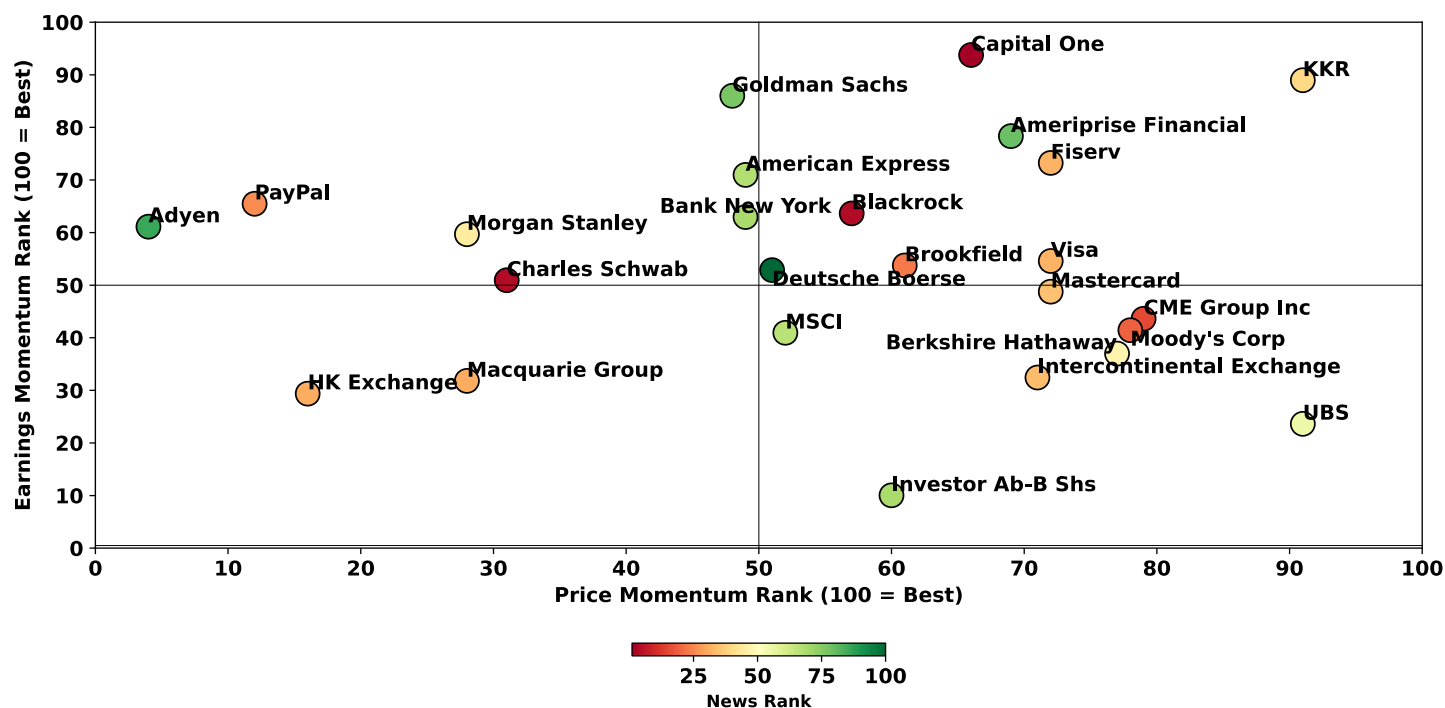


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 82: Diversified Financials: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

Triple Momentum is most positive for Ameriprise Financial and Deutsche Boerse

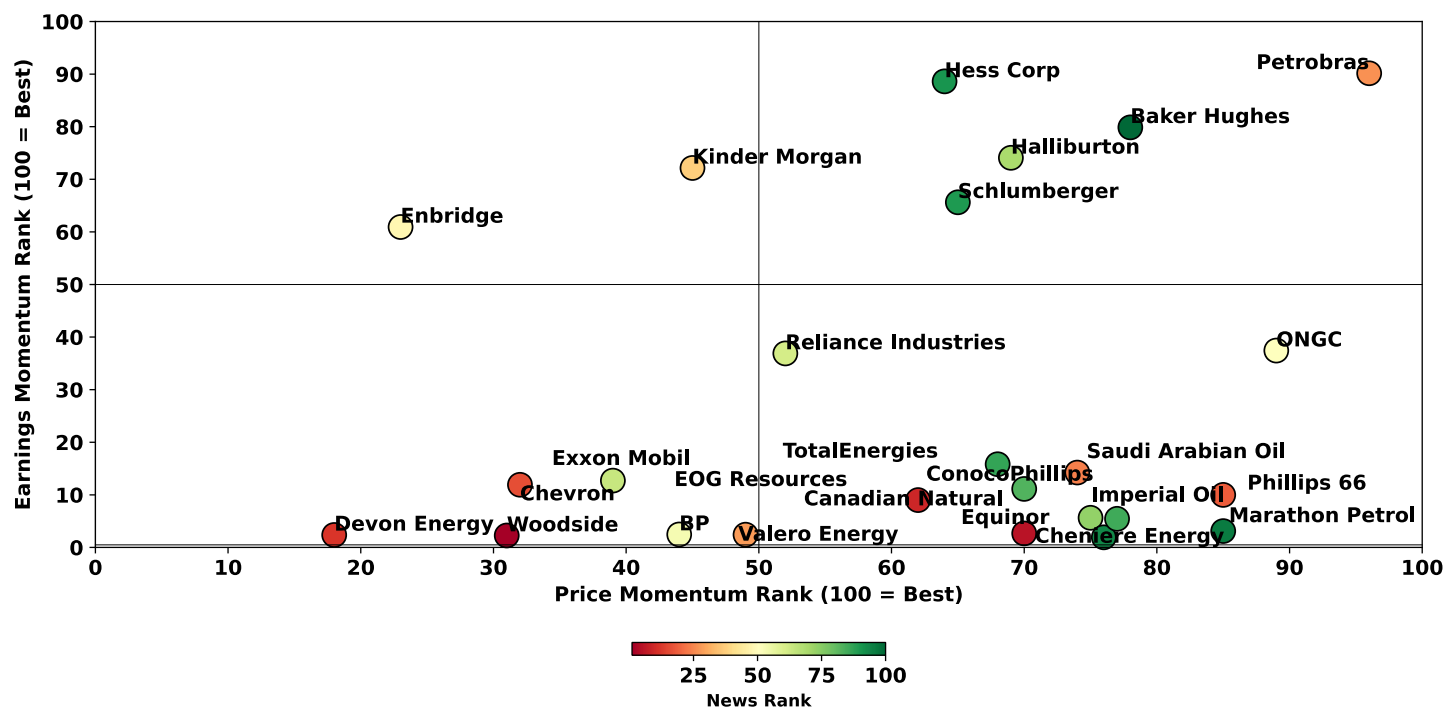


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Baker Hughes, Hess Corp and Schlumberger

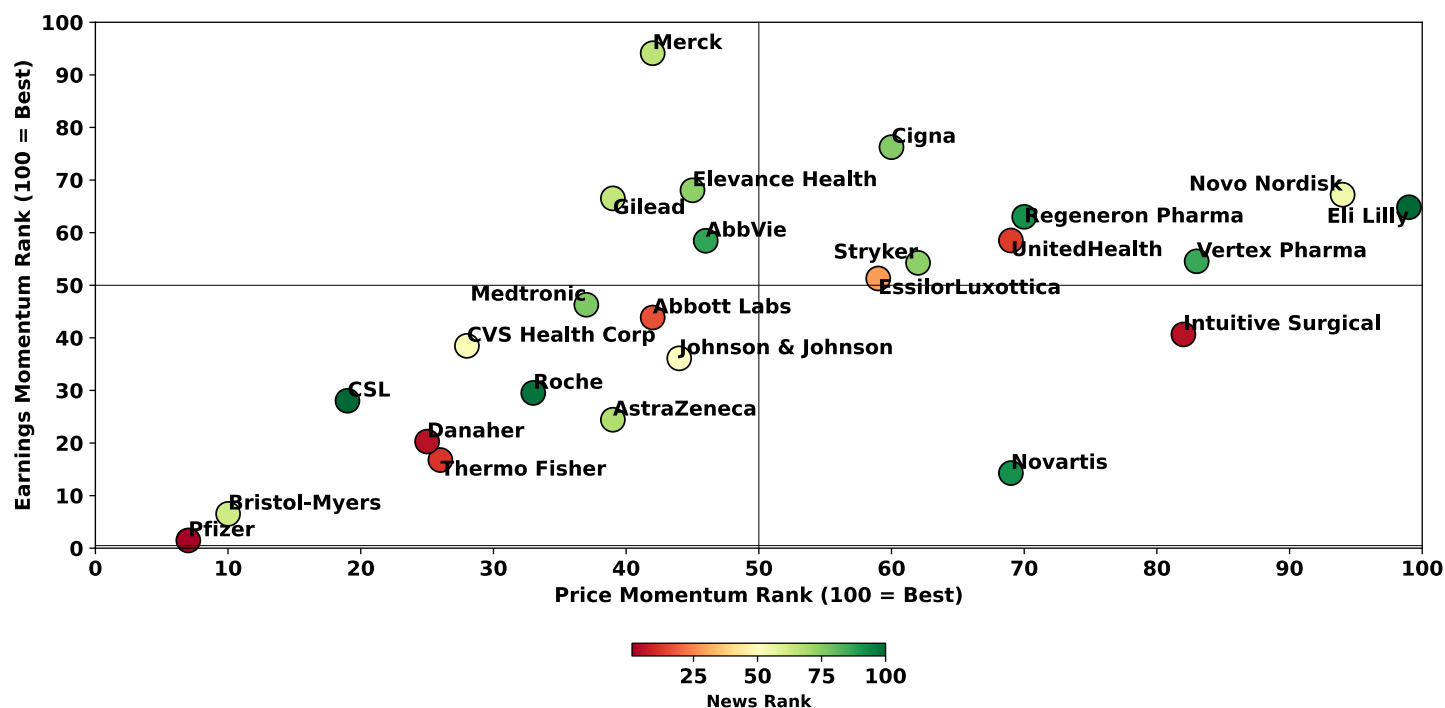


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

BofA GLOBAL RESEARCH

Chart 84: Health Care: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

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

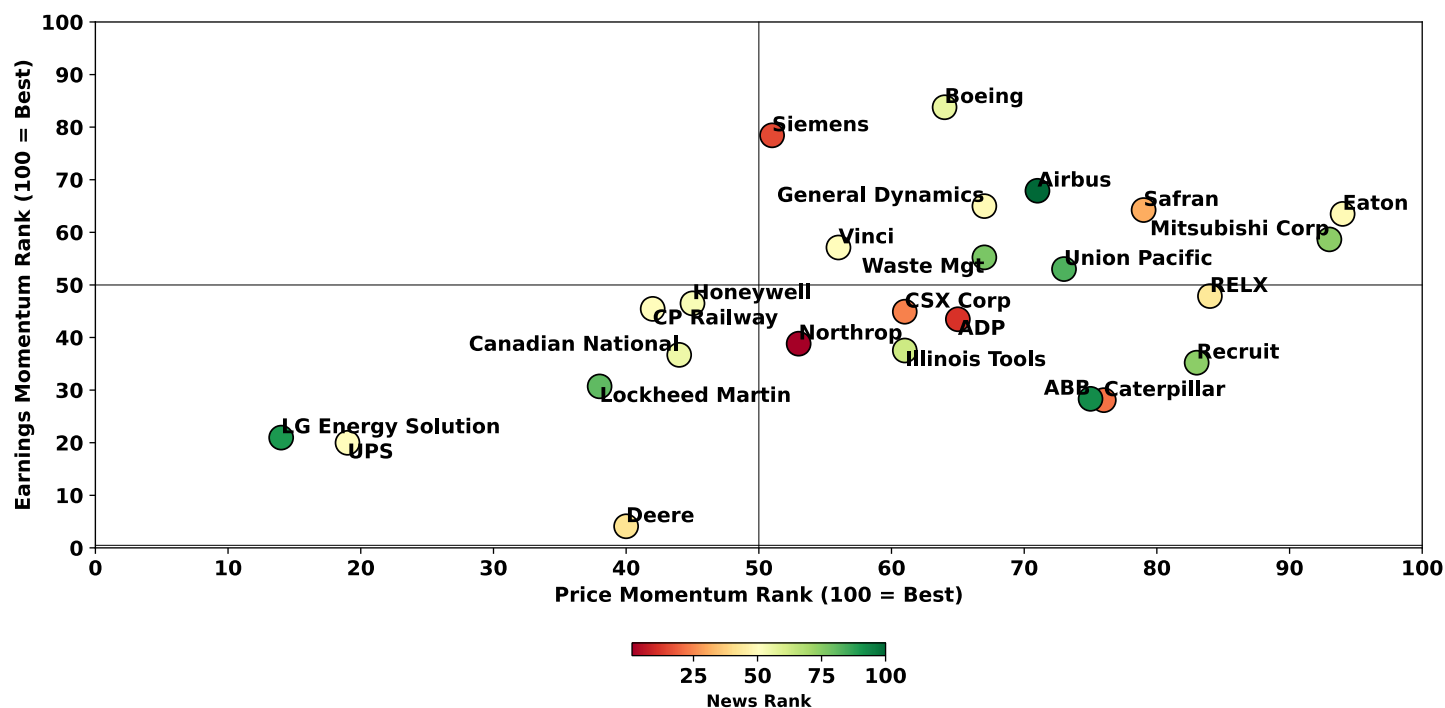


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

BofA GLOBAL RESEARCH

Chart 85: Industrials: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

Triple Momentum is most positive for Airbus, Mitsubishi Corp and Union Pacific

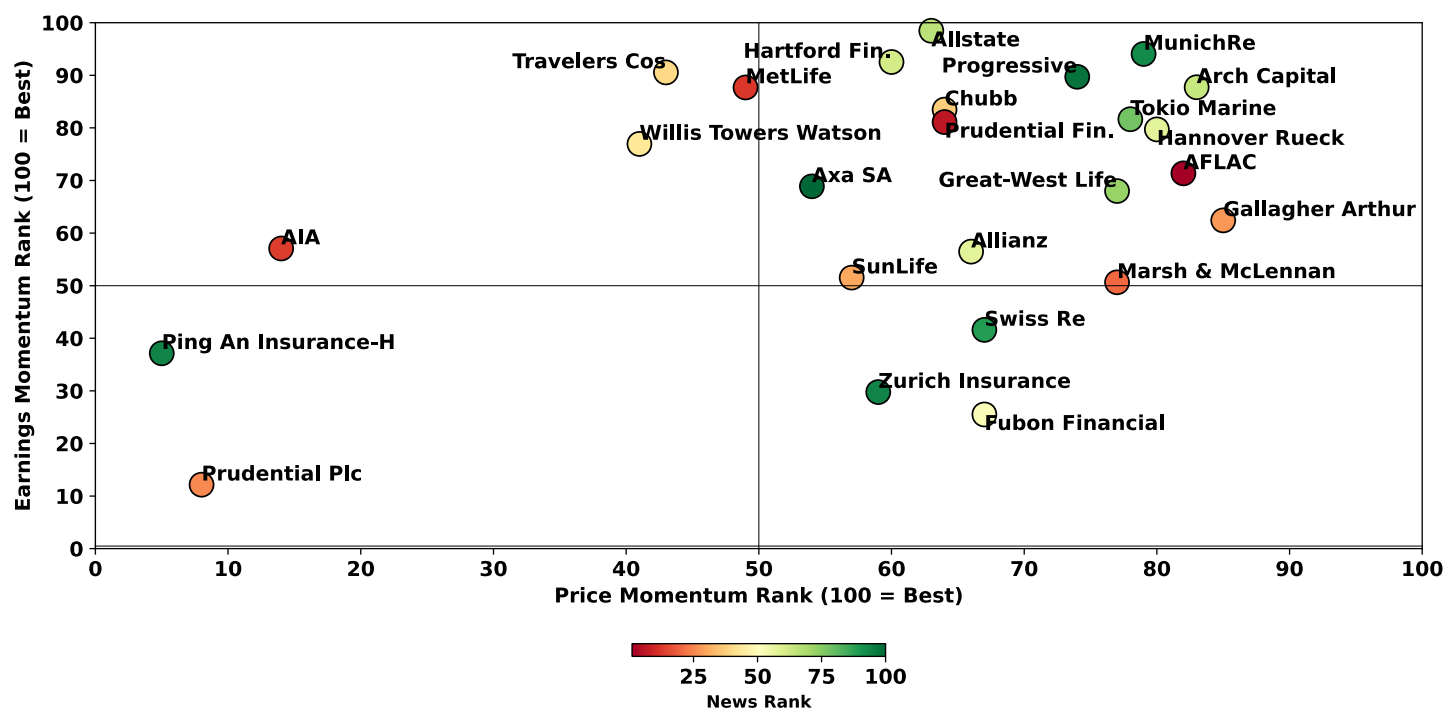


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 86: Insurance: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

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

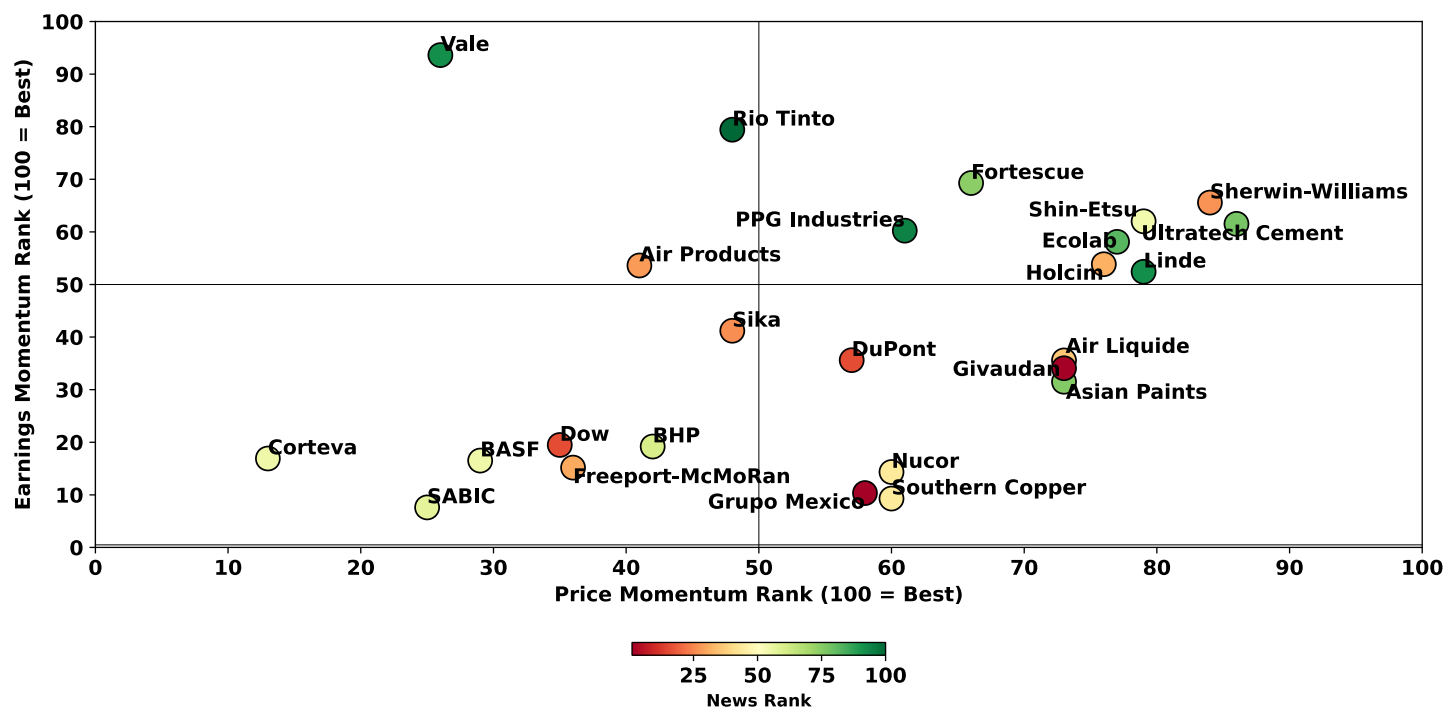


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Linde, PPG Industries and Ecolab

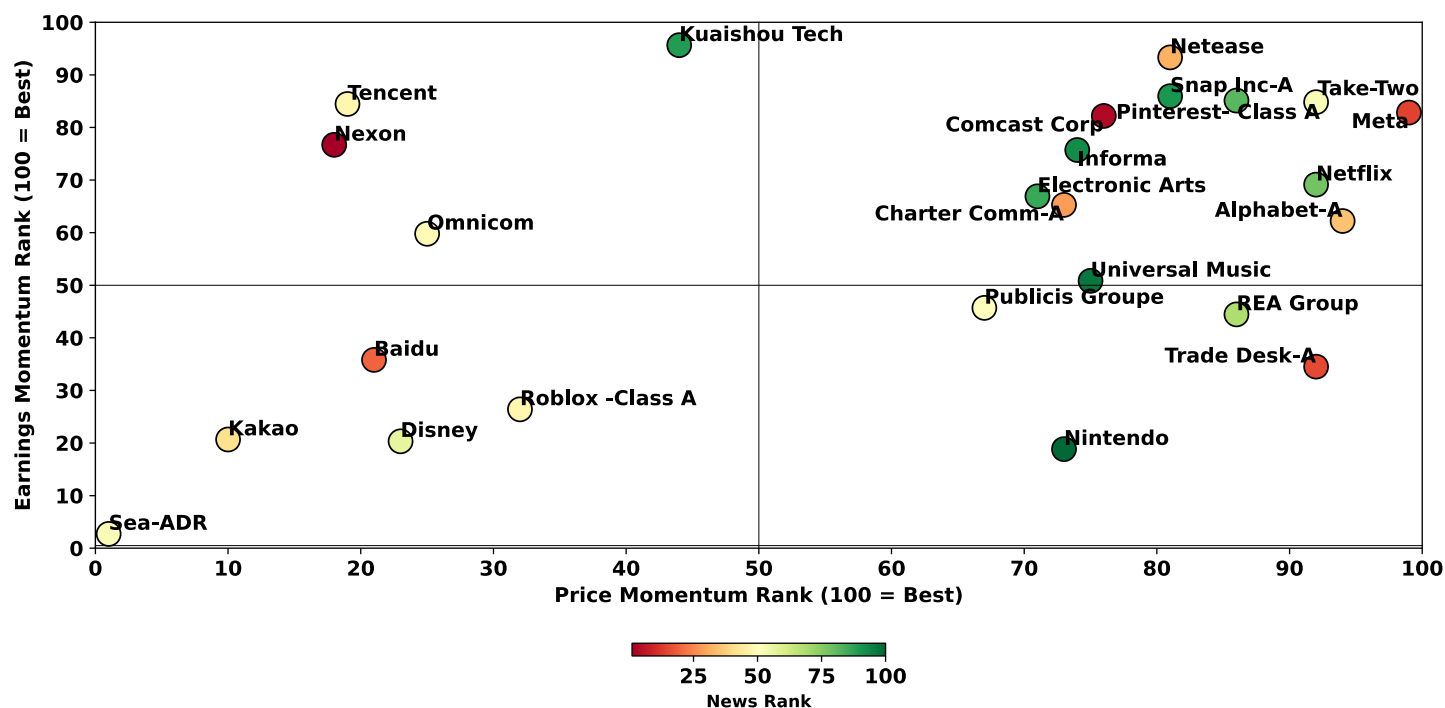


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 88: Media & Entertainment: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

Triple Momentum is most positive for Snap Inc-A, Pinterest-Class A and Informa

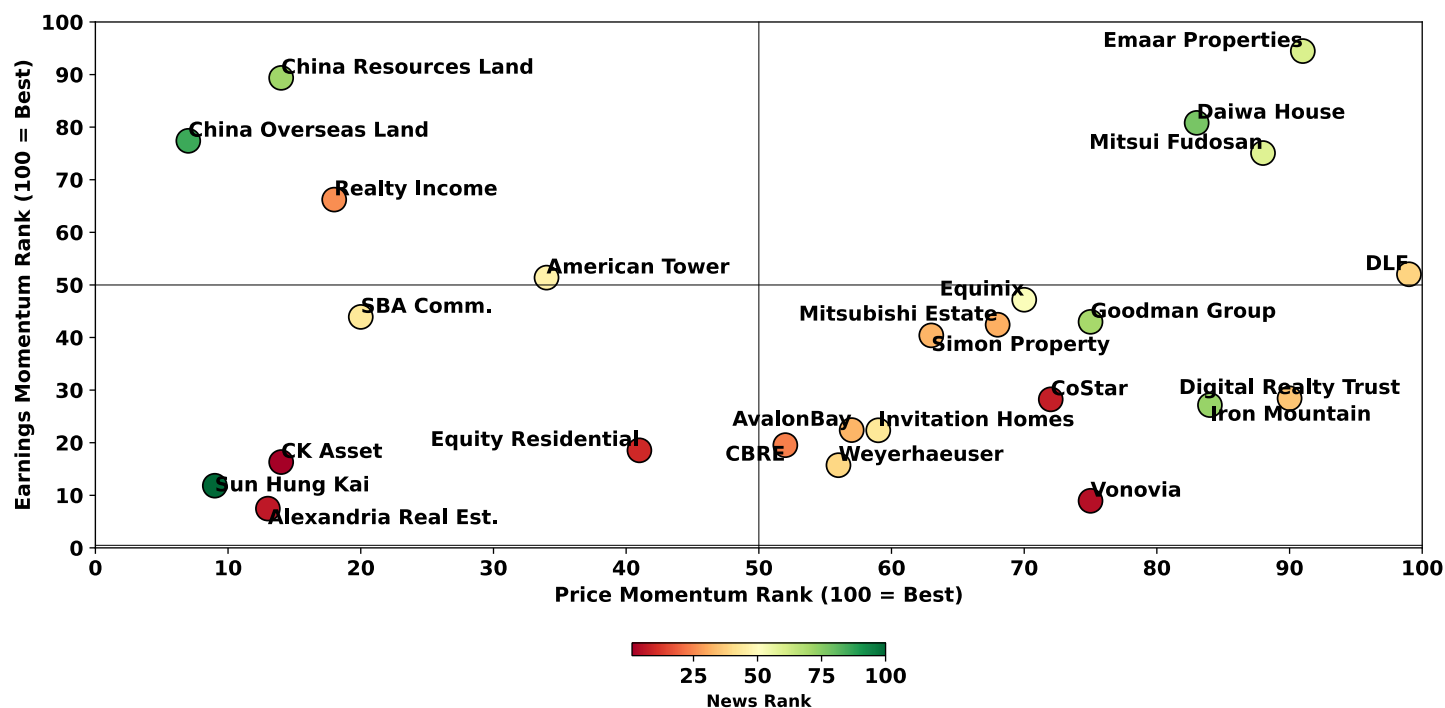


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 89: Real Estate: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

Triple Momentum is most positive for Daiwa House, Emaar Properties and Mitsui Fudosan

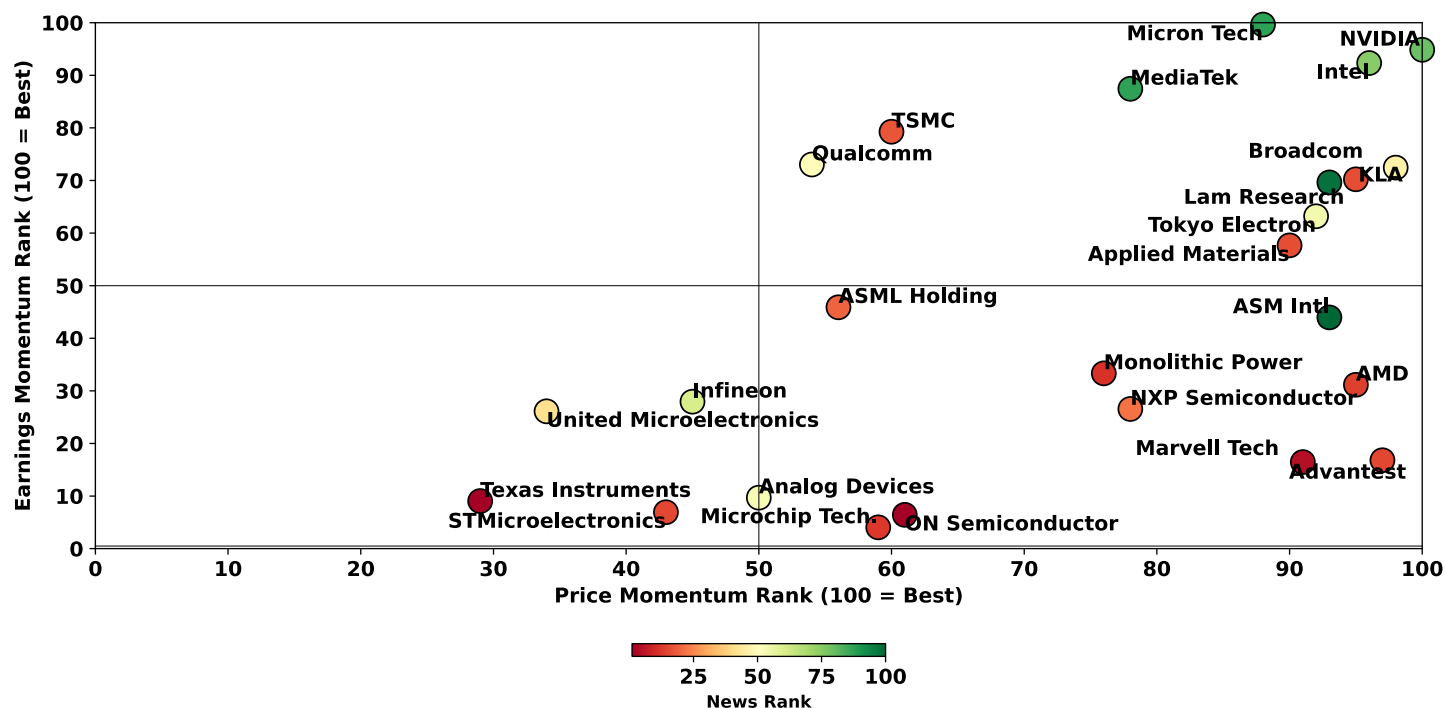


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Micron Tech, KLA and NVIDIA

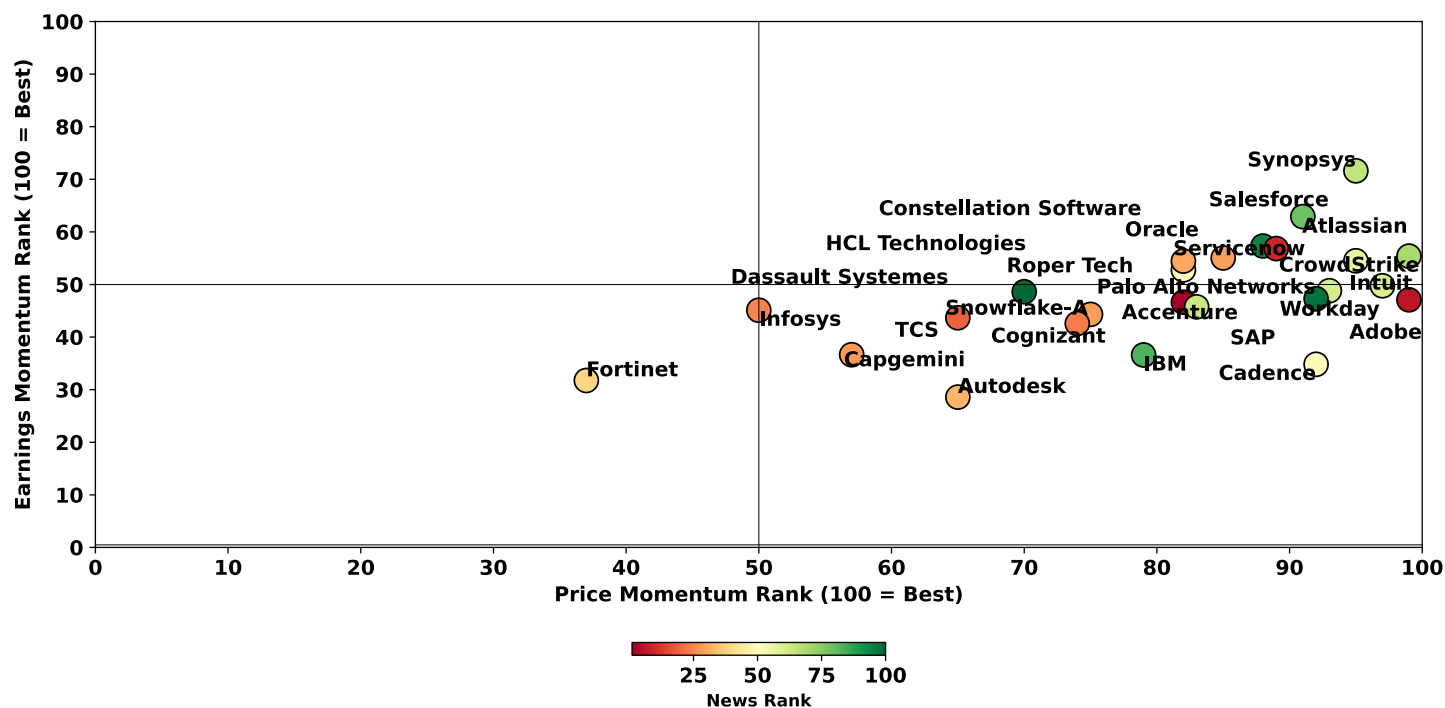


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Constellation Software, Salesforce and CrowdStrike

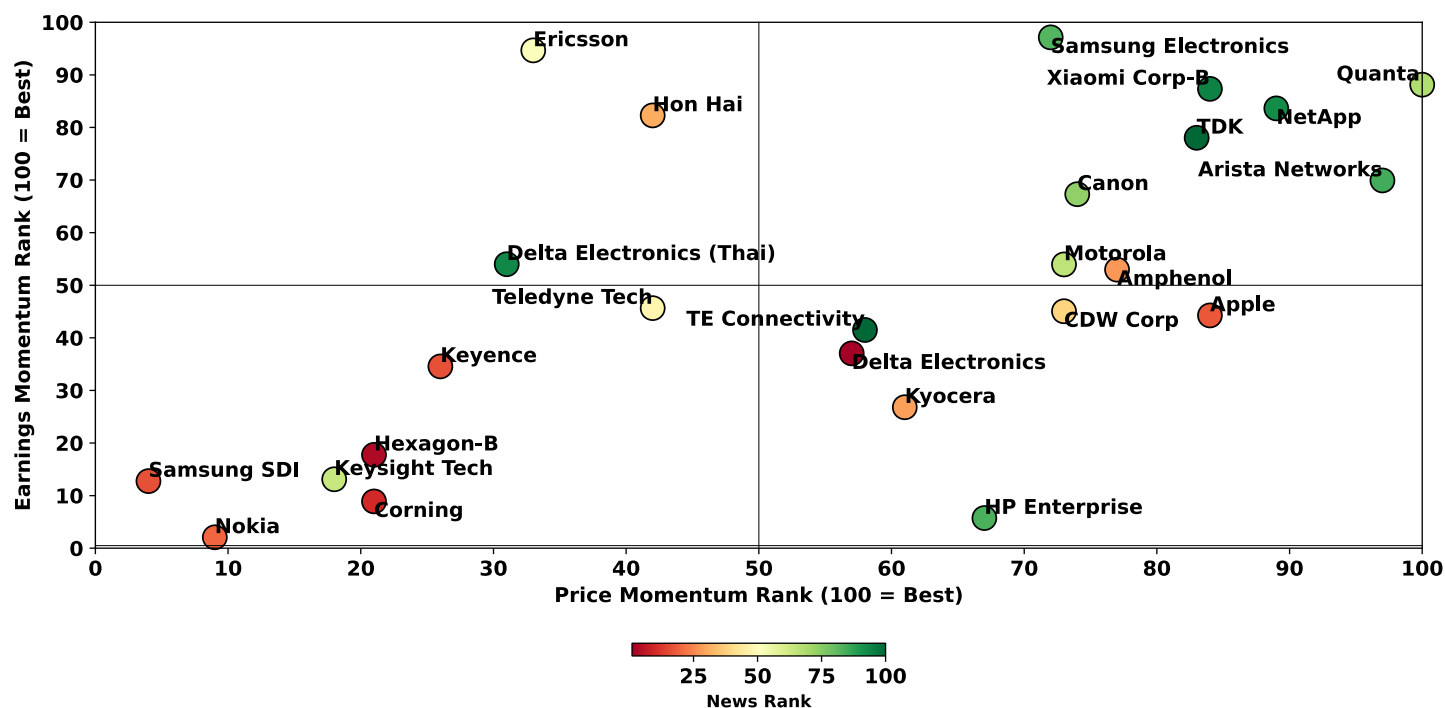


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 92: Tech Hardware: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

Triple Momentum is most positive for Xiaomi Corp-B, TDK and NetApp

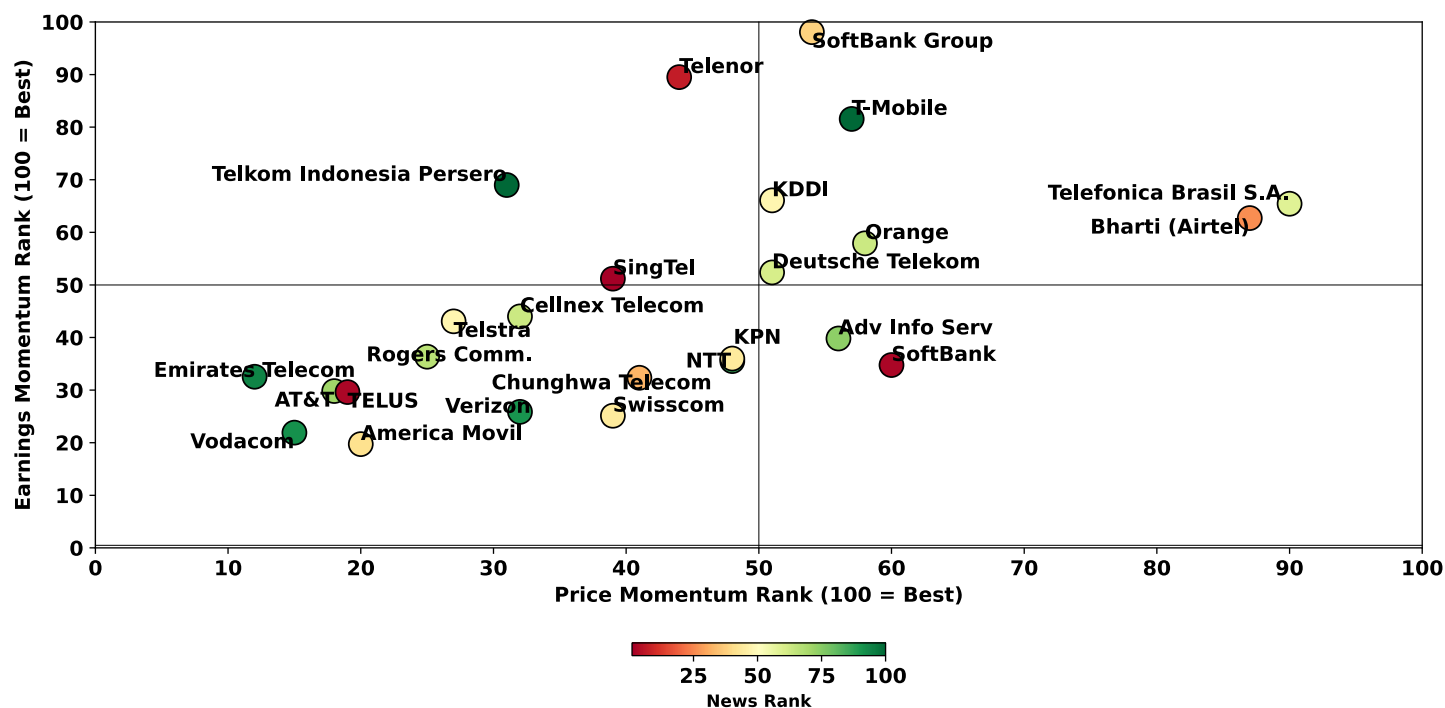


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 93: Telecom: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

Triple Momentum is most positive for T-Mobile, Telefonica Brasil S.A. and Orange

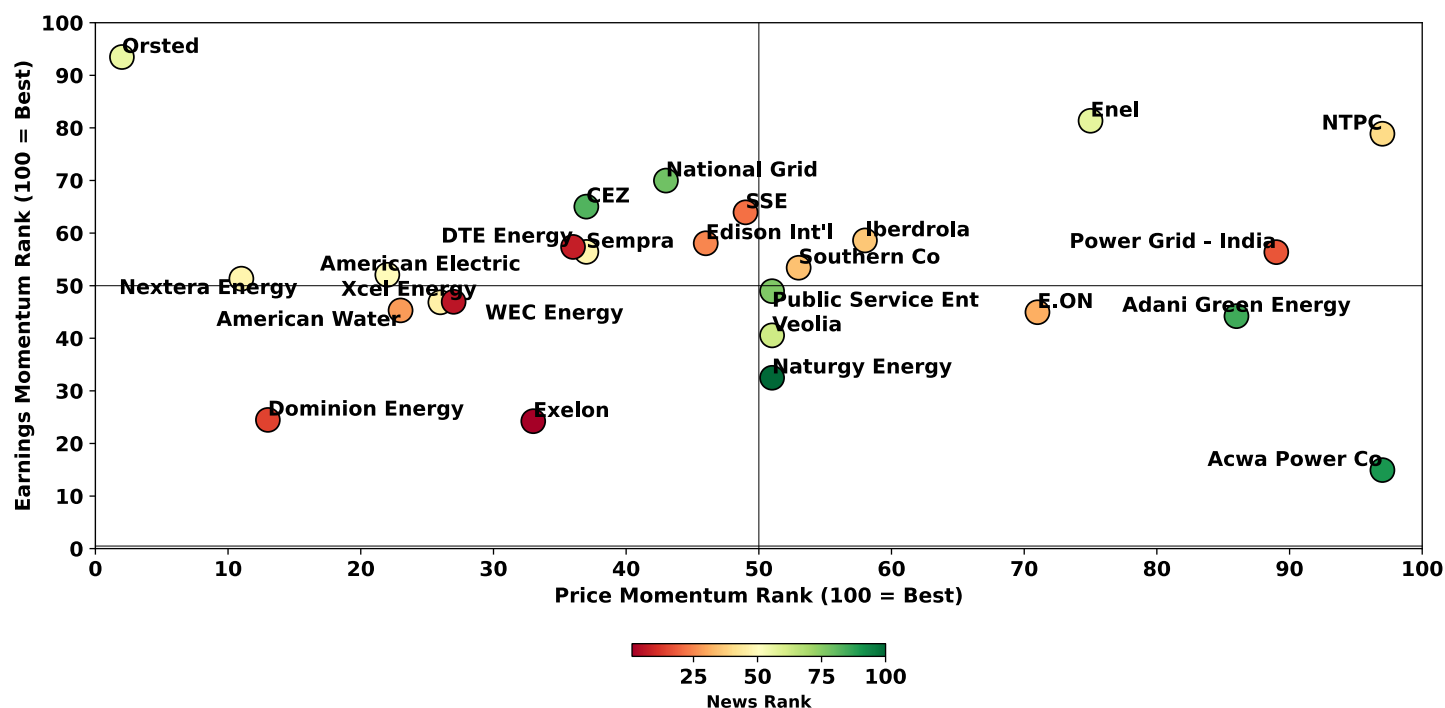


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Enel



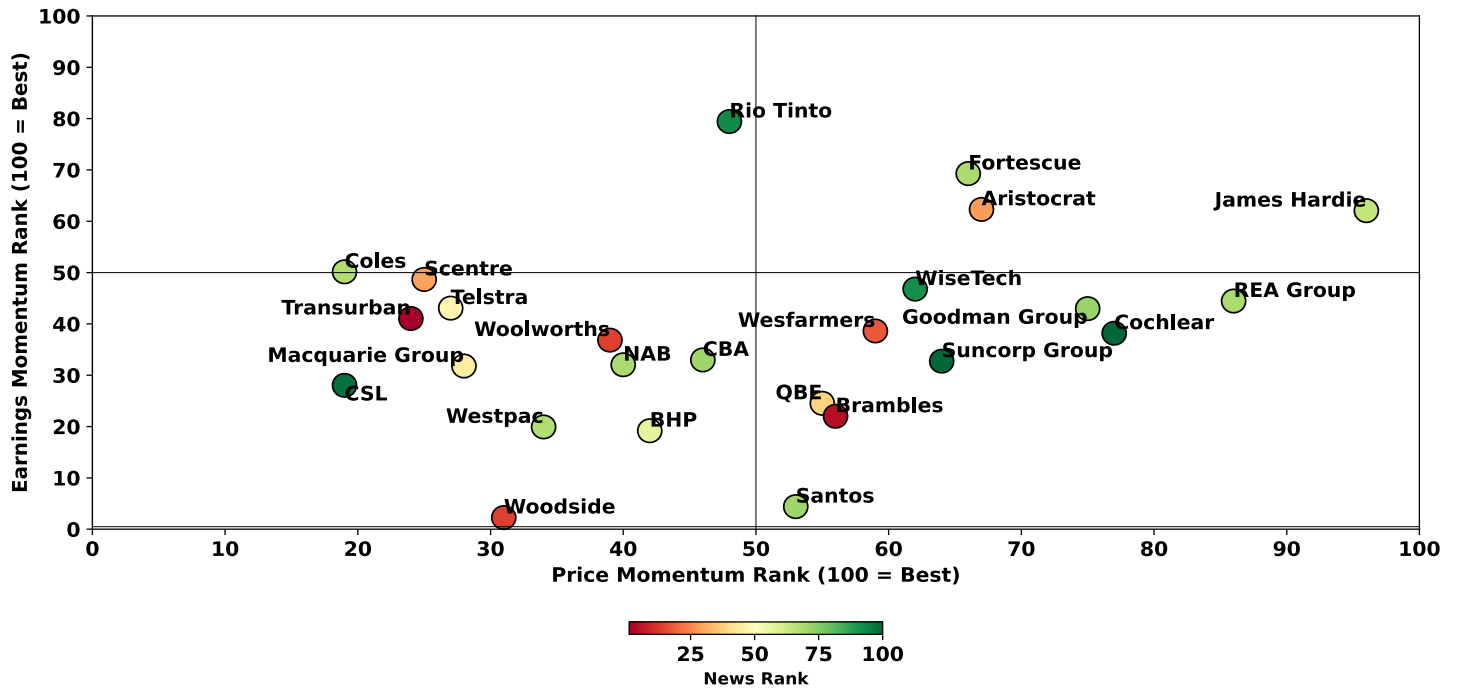
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Countries: Triple Momentum Charts

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

Triple Momentum is most positive for James Hardie and Fortescue

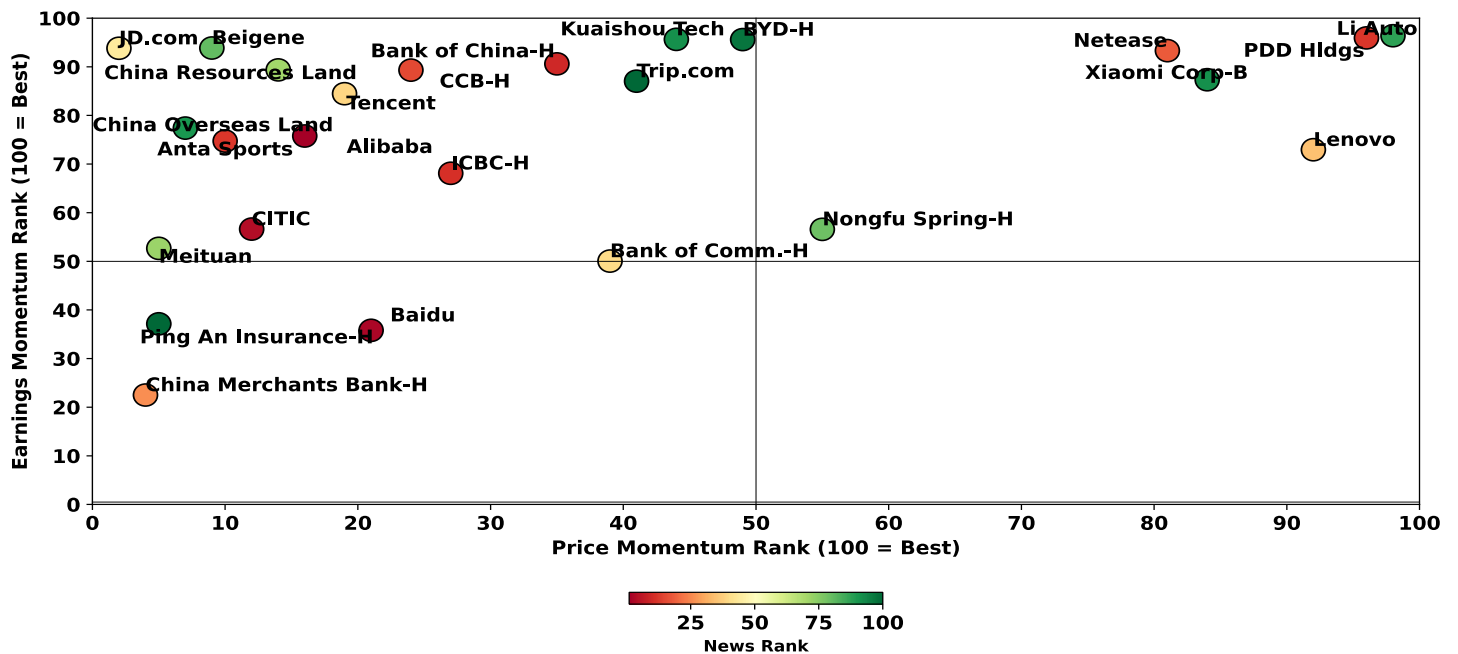


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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Chart 96: China: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)

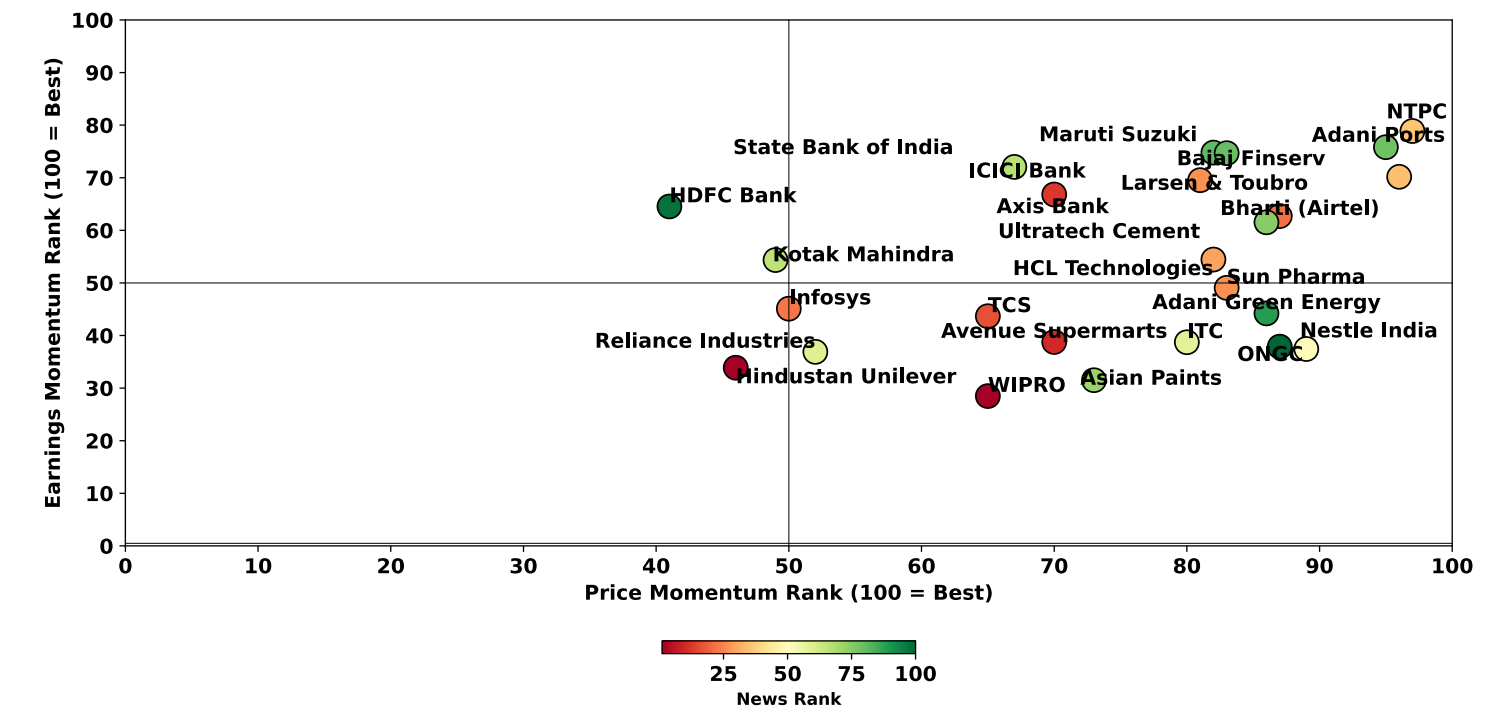
Triple Momentum is most positive for Li Auto, Xiaomi Corp-B and Nongfu Spring-H



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

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Chart 97: India: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)
Triple Momentum is most positive for Maruti Suzuki, Adani Ports and Bajaj Finserv



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

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Global Triple Momentum screens

Table 7: 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)
Vibra Energia	VBBR3 BZ	Brazil	Cons. Discretionary	5,459	42.7
Cosan	CSAN3 BZ	Brazil	Energy	7,381	24.5
Ultrapar Participacoes	UGPA3 BZ	Brazil	Energy	6,203	24.8
Parkland Corp	PKI CN	Canada	Energy	5,692	20.4
Li Auto	2015 HK	China	Cons. Discretionary	30,507	134.2
New Oriental Education & Tec	9901 HK	China	Cons. Discretionary	12,694	21.1
Pop Mart International Group	9992 HK	China	Cons. Discretionary	3,277	14.8
Tal Education-ADR	TAL US	China	Cons. Discretionary	6,187	63.9
PetroChina-H	857 HK	China	Energy	14,696	71.1
BYD Electronic	285 HK	China	Tech Hardware	10,026	27.5
Wartsila	WRT1V FH	Finland	Industrials	8,465	12.0
Credit Agricole	ACA FP	France	Banks	44,407	61.0
Adidas	ADS GR	Germany	Cons. Discretionary	34,282	93.5
MunichRe	MUV2 GR	Germany	Insurance	57,621	106.7
Heidelberg Materials	HEI GR	Germany	Materials	16,594	34.3
Alpha Services	ALPHA GA	Greece	Banks	4,002	11.8
Eurobank Ergasias	EUROB GA	Greece	Banks	6,569	8.1
Piraeus Financial	TPEIR GA	Greece	Banks	4,516	12.3
Mytilineos	MYTIL GA	Greece	Industrials	5,770	8.2
Chinasoft Int'l	354 HK	Hong Kong	Software	2,097	12.6
OTP Bank	OTP HB	Hungary	Banks	12,929	18.3
REC	RECL IN	India	Div Financials	13,751	66.6
Shriram Finance	SHFL IN	India	Div Financials	9,805	30.8
Bank Rakyat	BBRI IJ	Indonesia	Banks	56,169	41.5
Mazda Motor	7261 JP	Japan	Cons. Discretionary	7,061	60.5
Hitachi	5501 JP	Japan	Industrials	65,900	145.5
Toppan	7911 JP	Japan	Industrials	8,942	22.3
Sompo	8630 JP	Japan	Insurance	17,079	66.4
Mitsubishi Chemical	4188 JP	Japan	Materials	9,358	31.4
Gamuda	GAM MK	Malaysia	Industrials	2,817	5.4
Dallah Health	DALLAH AB	Saudi Arabia	Health Care	4,636	4.8
Co For Coop Insurance	TAWUNIYA AB	Saudi Arabia	Insurance	5,615	12.6
Etihad Etisalat	EEC AB	Saudi Arabia	Telecom	10,553	11.5
Hankook Tire & Tech	161390 KS	South Korea	Cons. Discretionary	4,115	8.5
Alchip Tech	3661 TT	Taiwan	Semiconductors	8,100	201.3
Acer	2353 TT	Taiwan	Tech Hardware	4,742	44.8
Asustek	2357 TT	Taiwan	Tech Hardware	10,875	82.7
Wiiwynn	5669 TT	Taiwan	Tech Hardware	9,641	175.4
Next	NXT LN	United Kingdom	Cons. Discretionary	13,689	21.5
Wise - A	WISE LN	United Kingdom	Div Financials	10,907	9.8
Melrose Industries	MRO LN	United Kingdom	Industrials	9,568	23.4
Booking	BKNG US	United States	Cons. Discretionary	121,644	829.1
Progressive	PGR US	United States	Insurance	95,240	367.2
Martin Marietta	MLM US	United States	Materials	30,086	166.6
Godaddy	GDDY US	United States	Software	14,714	137.4

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

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Table 8: 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)
Brp Inc/Ca-Sub V	DOO CN	Canada	Cons. Discretionary	2,429	24.2
First Quantum	FM CN	Canada	Materials	6,598	70.1
SQM	SQM/B CI	Chile	Industrials	7,821	26.7
WuXi Biologics	2269 HK	China	Health Care	14,997	120.5
Ganfeng Lithium-H	1772 HK	China	Materials	1,468	16.4
China Vanke-H	2202 HK	China	Real Estate	1,907	23.3
ENN Energy	2688 HK	China	Utilities	8,539	30.0
Moller-Maersk-B	MAERSKB DC	Denmark	Industrials	15,353	45.5
Kering	KERFP	France	Cons. Discretionary	51,542	90.7
Remy Cointreau	RCO FP	France	Cons. Staples	5,393	12.0
Bayer	BAYN GR	Germany	Health Care	37,987	136.4
Wacker Chemie	WCH GR	Germany	Materials	6,035	12.4
Xtep International	1368 HK	Hong Kong	Cons. Discretionary	1,277	6.5
China Int'l Capital Corp-H	3908 HK	Hong Kong	Div Financials	2,681	19.9
Xinyi Glass	868 HK	Hong Kong	Industrials	4,639	8.0
Aneka Tambang	ANTM IJ	Indonesia	Materials	2,594	4.5
Yamaha	7951 JP	Japan	Cons. Discretionary	4,230	26.0
Misumi Group	9962 JP	Japan	Industrials	4,768	18.4
Dentsu	4324 JP	Japan	Media & Ent.	6,972	28.1
Axiata Group	AXIATA MK	Malaysia	Telecom	5,049	2.1
OCI	OCI NA	Netherlands	Materials	6,139	13.4
Cyfrowy Polsat SA	CPS PW	Poland	Media & Ent.	1,927	3.3
Capitaland Investment	CLISP	Singapore	Real Estate	11,768	17.2
Boliden	BOL SS	Sweden	Materials	8,181	32.4
Julius Baer	BAER SW	Switzerland	Div Financials	11,635	30.8
Voltronic Power	6409 TT	Taiwan	Industrials	4,569	8.9
Asia Cement	1102 TT	Taiwan	Materials	4,701	8.5
JD Sports Fashion	JD/LN	United Kingdom	Cons. Discretionary	7,938	12.2
Hargreaves Lansd	HL/LN	United Kingdom	Div Financials	4,368	11.1
St James's Place	STJ LN	United Kingdom	Div Financials	4,500	12.5
Phoenix Group	PHNX LN	United Kingdom	Insurance	6,623	11.7
Anglo American (UK)	AAL LN	United Kingdom	Materials	31,910	68.3
Croda Intl	CRDA LN	United Kingdom	Materials	8,262	18.0
WPP	WPP LN	United Kingdom	Media & Ent.	10,557	18.8
Hasbro	HAS US	United States	Cons. Discretionary	6,712	104.6
Conagra Brands	CAG US	United States	Cons. Staples	13,483	123.7
Darling Ingredients	DAR US	United States	Cons. Staples	7,370	90.4
Estee Lauder	EL US	United States	Cons. Staples	31,869	391.9
Mettler-Toledo	MTD US	United States	Health Care	24,757	188.7
Moderna	MRNA US	United States	Health Care	42,291	413.5
Pfizer	PFE US	United States	Health Care	166,386	1011.6
Revvity	RVTY US	United States	Health Care	13,327	83.2
Paycom Software	PAYC US	United States	Industrials	11,921	181.9
Southwest Airlines	LUV US	United States	Industrials	17,363	229.7
Albemarle	ALB US	United States	Materials	15,939	392.2

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

BofA GLOBAL RESEARCH

Asia Pace ex-Japan Triple Momentum screens

Table 9: 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)
Rio Tinto	RIO AU	Australia	Materials	33,094	114.5
New Oriental Education & Tec	9901 HK	China	Cons. Discretionary	12,694	21.1
Tal Education-ADR	TAL US	China	Cons. Discretionary	6,187	63.9
Hansoh Pharma	3692 HK	China	Health Care	10,575	10.4
AAC Tech	2018 HK	China	Tech Hardware	3,253	15.2
BYD Electronic	285 HK	China	Tech Hardware	10,026	27.5
Xiaomi Corp-B	1810 HK	China	Tech Hardware	39,122	165.6
Chinasoft Int'l	354 HK	Hong Kong	Software	2,097	12.6
TVS Motor	TVSL IN	India	Cons. Discretionary	11,307	20.4
REC	RECL IN	India	Div Financials	13,751	66.6
Shriram Finance	SHFL IN	India	Div Financials	9,805	30.8
Bharat Elec	BHE IN	India	Industrials	16,344	29.5
Shree Cement	SRCM IN	India	Materials	11,724	8.8
Bank Rakyat	BBRI JJ	Indonesia	Banks	56,169	41.5
Gamuda	GAM MK	Malaysia	Industrials	2,817	5.4
Ayala Corp	AC PM	Philippines	Industrials	7,936	3.0
Manila Electric	MER PM	Philippines	Utilities	8,093	1.3
Coway	021240 KS	South Korea	Cons. Discretionary	2,985	6.1
Hankook Tire & Tech	161390 KS	South Korea	Cons. Discretionary	4,115	8.5
Kia	000270 KS	South Korea	Cons. Discretionary	27,996	68.2
HD Hyundai	267250 KS	South Korea	Energy	3,765	10.6
Samsung C&T	028260 KS	South Korea	Industrials	17,650	19.7
China Development	2883 TT	Taiwan	Insurance	6,707	16.9
Alchip Tech	3661 TT	Taiwan	Semiconductors	8,100	201.3
MediaTek	2454 TT	Taiwan	Semiconductors	47,506	162.8
Powerchip Semi Manu	6770 TT	Taiwan	Semiconductors	4,048	10.8
Acer	2353 TT	Taiwan	Tech Hardware	4,742	44.8
Asustek	2357 TT	Taiwan	Tech Hardware	10,875	82.7
Wiiwynn	6669 TT	Taiwan	Tech Hardware	9,641	175.4
Thai Oil	TOP TB	Thailand	Energy	3,458	17.5

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

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Table 10: 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)
Woodside	WDS AU	Australia	Energy	40,081	119.2
Brambles	BXB AU	Australia	Industrials	12,795	36.1
Mineral Resources	MIN AU	Australia	Materials	8,946	45.9
Mirvac	MGR AU	Australia	Real Estate	5,369	21.5
WuXi Biologics	2269 HK	China	Health Care	14,997	120.5
PICC-H	2328 HK	China	Insurance	8,737	30.3
Ganfeng Lithium-H	1772 HK	China	Materials	1,468	16.4
China Vanke-H	2202 HK	China	Real Estate	1,907	23.3
ENN Energy	2688 HK	China	Utilities	8,539	30.0
Hang Seng Bank	11 HK	Hong Kong	Banks	21,371	16.0
Xtep International	1368 HK	Hong Kong	Cons. Discretionary	1,277	6.5
China Int'l Capital Corp-H	3908 HK	Hong Kong	Div Financials	2,681	19.9
Xinyi Glass	868 HK	Hong Kong	Industrials	4,639	8.0
CK Asset	1113 HK	Hong Kong	Real Estate	17,254	19.5
Swire Prop	1972 HK	Hong Kong	Real Estate	11,595	4.7
HK & China Gas	3 HK	Hong Kong	Utilities	14,097	10.6
Indofood Sukses	INDF JJ	Indonesia	Cons. Staples	3,650	3.5
United Tractors	UNTR JJ	Indonesia	Energy	5,590	7.8
Aneka Tambang	ANTM JJ	Indonesia	Materials	2,594	4.5
PPB Group	PEP MK	Malaysia	Cons. Staples	4,396	2.1
Axiata Group	AXIATA MK	Malaysia	Telecom	5,049	2.1
Wilmar Int'l	WIL SP	Singapore	Cons. Staples	17,041	14.9
Capitaland Investment	CLI SP	Singapore	Real Estate	11,768	17.2
L&F	066970 KS	South Korea	Industrials	5,814	139.1
POSCO Future M	003670 KS	South Korea	Industrials	20,198	293.1
Samsung SDI	006400 KS	South Korea	Tech Hardware	23,262	112.1
Voltronic Power	6409 TT	Taiwan	Industrials	4,569	8.9
Shin Kong	2888 TT	Taiwan	Insurance	4,356	10.8
Delta Electronics	2308 TT	Taiwan	Tech Hardware	25,507	72.3
E Ink	8069 TT	Taiwan	Tech Hardware	6,969	39.1

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

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R1}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R1} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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