

High Frequency Monitor

Semi surge

Global Tech rally and China sell-off both continued

Global equity markets were flat last week (-0.1%) as stronger US data reduced the chance the Fed would cut rates in March. The global Tech sector led returns with Semis (+7.3%), Software (+2.2%), and Tech Hardware (+1.9%) all outperforming while Utilities (-3.7%) and Materials (-3.4%) underperformed. The US (+1.2%) was the best performing region last week, while China fell -5.8% on slower economic growth and an increasing risk of persistent deflation. Globally, Growth outperformed last week, while Risk and Value underperformed. The prospects for global equities in 2024 remain positive supported by a Fed pivot, a soft landing in the US, and a global earnings recovery.

Earnings drive equities in two different ways

Through the cycle, global equity markets tend to reflect the growth in EPS expectations, so a rising 12-month forward EPS is a positive signal for equities in 2024. If markets rally with earnings then valuations don't change. At the same time, equity market valuations tend to move in tandem with the Global Earnings Revision Ratio, so a recent small drop in the Ratio may weigh slightly on the global forecast PE. Equity markets were driven by a re-rating in 2023 but could be driven by an earnings recovery in 2024.

Triple Momentum: Diversified Financials replaces Banks

<u>Triple Momentum</u> is now most positive on global Software, Insurance, and Diversified Financials (replacing Banks). Triple Momentum remains most negative on Materials, Consumer Staples, and Real Estate. Recent news trends have been dominated by Apple Vision Pro, X, Samsung Galaxy S24, Boeing 737 MAX, Apple, Alphabet, and Microsoft.

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

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- **Earnings Revision Ratio**
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- **NewsAlpha**
- **Word Cloud**
- **Tactical Indicators**
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- Rates
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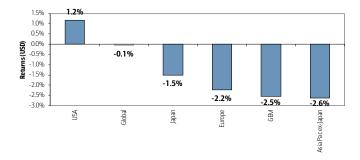
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Market Performance

Chart 2: Global Regions Performance: Last Week

Best performing region last week was The USA

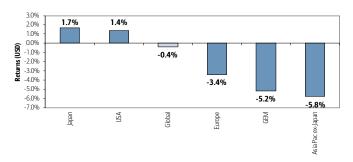


Source: BofA Global Quantitative Strategy, MSCI

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Chart 4: Global Regions Performance: MTD

Best performing region this month is Japan

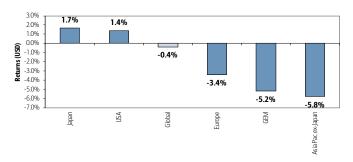


Source : BofA Global Quantitative Strategy, MSCI

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Chart 6: Global Regions Performance: YTD

YTD: Japan performed the best

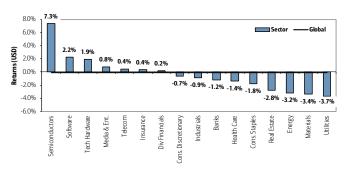


Source: BofA Global Quantitative Strategy, MSCI

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Chart 3: Global Sectors Performance: Last Week

Last week: Semiconductors performed the best

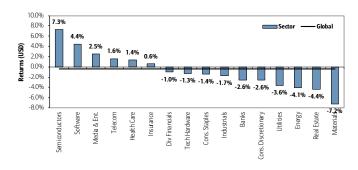


Source: BofA Global Quantitative Strategy, MSCI

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Chart 5: Global Sectors Performance: MTD

Semiconductors is the best performing sector this month

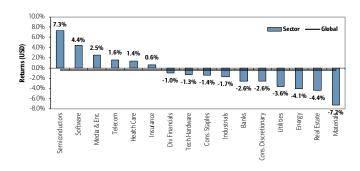


Source: BofA Global Quantitative Strategy, MSCI

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Chart 7: Global Sectors Performance: YTD

YTD: Semiconductors has performed the best



Source: BofA Global Quantitative Strategy, MSCI



Table 1: Global Region Country Sector Performance: Last week Last week: Semiconductors performed the best

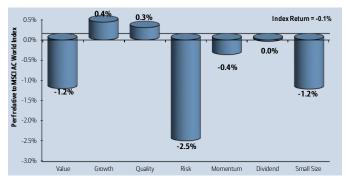
	Energy	Materials	Industrials	Cons. Discretionary	Cons. Staples	Health Care	Banks	Div Financials	Insurance	Software	Tech Hardware	Semiconductors	Telecom	Media & Ent.	Utilities	Real Estate	Country
Canada	-3.7%	-4.9%	0.4%	-0.3%	3.1%	n/a	0.1%	1.6%	0.2%	1.5%	n/a	n/a	0.5%	n/a	-2.2%	-0.4%	-1.0%
USA	-3.1%	-1.4%	0.4%	0.6%	-1.1%	-0.7%	0.3%	0.8%	2.2%	2.5%	2.9%	8.4%	1.6%	1.9%	-3.6%	-2.1%	1.2%
Belgium	n/a	-10.6%	n/a	-1.1%	-3.7%	-4.3%	1.4%	-4.5%	-2.6%	n/a	n/a	n/a	n/a	n/a	-7.8%	-6.3%	-4.0%
Finland	-4.8%	-6.2%	-5.8%	n/a	-8.9%	0.1%	-3.4%	n/a	-2.1%	n/a	-4.5%	n/a	0.4%	n/a	-8.6%	n/a	-4.5%
France	-3.8%	-2.0%	-1.5%	-2.1%	-3.9%	-3.1%	-1.1%	-0.1%	3.1%	2.0%	n/a	1.2%	3.3%	-0.1%	-4.0%	-3.2%	-1.9%
Germany	n/a	-4.2%	-2.5%	-5.6%	-3.7%	-4.0%	-3.2%	-0.8%	1.6%	2.0%	n/a	-1.0%	1.8%	-3.2%	-3.6%	-3.7%	-1.8%
Italy	-4.3%	n/a	-4.2%	-3.0%	-4.0%	-5.6%	1.3%	-1.5%	1.7%	n/a	n/a	n/a	-2.6%	n/a	-2.4%	n/a	-1.7%
Netherlands	n/a	-2.5%	0.1%	-5.5%	-2.7%	-3.7%	-1.9%	-5.4%	-0.2%	n/a	n/a	5.4%	0.2%	0.2%	n/a	n/a	1.1%
Norway	-7.5%	-7.0%	-0.2%	n/a	1.5%	n/a	-4.1%	n/a	-2.7%	n/a	n/a	n/a	-0.9%	-2.3%	n/a	n/a	-4.2%
Spain	-1.6%	n/a	-2.1%	-0.9%	n/a	-6.4%	-3.5%	n/a	n/a	n/a	n/a	n/a	-3.0%	n/a	-5.1%	n/a	-3.2%
Sweden	n/a	-7.2%	-4.2%	-1.7%	-8.1%	-4.1%	-6.0%	-3.1%	n/a	n/a	-5.5%	n/a	-2.7%	n/a	n/a	-7.8%	-4.5%
Switzerland	n/a	-4.3%	-5.5%	2.2%	-2.0%	-2.6%	-1.5%	-3.7%	-2.3%	2.1%	-1.7%	n/a	-2.1%	n/a	-8.7%	-3.7%	-2.7%
UK	-3.7%	-4.0%	-1.1%	-1.6%	-3.1%	-2.9%	-4.4%	-1.1%	-2.8%	-2.4%	-3.2%	n/a	-1.3%	-1.2%	-4.0%	-6.1%	-3.0%
Australia	-2.4%	-5.0%	-2.7%	-0.1%	-2.6%	-2.3%	-1.4%	-1.3%	0.7%	1.7%	n/a	n/a	-0.2%	-3.0%	-4.0%	-4.0%	-2.5%
Hong Kong	n/a	n/a	-3.4%	-2.1%	-7.2%	n/a	-3.4%	-8.1%	-4.7%	n/a	n/a	n/a	1.3%	n/a	-3.0%	-5.3%	-4.7%
Japan	-1.9%	-2.4%	-1.8%	-1.0%	-3.5%	-4.0%	-0.6%	0.5%	-1.1%	-3.4%	-2.8%	6.5%	0.2%	-3.2%	-4.4%	-3.4%	-1.5%
Singapore	n/a	n/a	-2.4%	-2.3%	-3.4%	n/a	-1.9%	-3.6%	n/a	n/a	n/a	n/a	-1.2%	1.4%	-1.7%	-2.9%	-1.9%
China	-4.2%	-6.0%	-4.1%	-7.3%	-4.8%	-5.9%	-2.4%	-3.6%	-5.6%	-7.1%	-6.0%	-1.9%	-3.9%	-6.6%	-4.7%	-9.1%	-5.8%
India	0.9%	-1.4%	-0.1%	0.1%	-0.3%	0.6%	-3.9%	-1.1%	-0.7%	1.6%	n/a	n/a	4.0%	-4.1%	-2.3%	-1.9%	-0.6%
Korea	-6.0%	-10.0%	-6.3%	-4.2%	-5.6%	-7.8%	-2.9%	-3.5%	-8.1%	-5.8%	-0.5%	3.2%	-2.5%	-8.5%	-5.3%	n/a	-3.4%
Taiwan	-9.5%	-6.4%	-4.2%	-6.0%	-2.4%	-4.1%	-3.1%	-3.2%	-3.2%	n/a	0.2%	n/a	-2.4%	n/a	n/a	-4.9%	1.3%
Brazil	-3.7%	-5.9%	-4.4%	-4.3%	-3.7%	-9.8%	-2.6%	-4.4%	2.0%	-4.7%	n/a	n/a	-0.8%	n/a	-4.3%	n/a	-4.1%
Mexico	n/a	-3.7%	-3.7%	n/a	-1.2%	n/a	-0.5%	n/a	n/a	n/a	n/a	n/a	-2.1%	n/a	n/a	n/a	-2.0%
South Africa	-4.8%	-7.5%	-6.3%	-5.1%	-2.0%	n/a	-4.6%	-4.5%	-3.5%	n/a	n/a	n/a	-6.4%	n/a	n/a	n/a	-5.0%
Global Sector	-3.2%	-3.4%	-0.9%	-0.7%	-1.8%	-1.4%	-1.2%	0.2%	0.4%	2.2%	1.9%	7.3%	0.4%	0.8%	-3.7%	-2.8%	-0.1%
Europe Sector	-4.0%	-4.0%	-2.6%	-1.8%	-2.9%	-2.4%	-2.7%	-2.5%	-0.2%	1.7%	-4.3%	4.3%	-0.1%	-0.6%	1.6%	-4.7%	-2.2%
APxJ Sector	-1.5%	-5.0%	-3.5%	-5.1%	-2.8%	-3.6%	-2.3%	-3.0%	-3.7%	0.8%	-1.0%	3.9%	-0.4%	-6.4%	-3.3%	-5.0%	-2.6%
GEM Sector	-2.0%	-5.0%	-3.5%	-5.4%	-2.3%	-4.3%	-2.2%	-2.7%	-3.8%	0.5%	-1.0%	3.9%	-0.7%	-6.8%	-3.2%	-5.4%	-2.5%

Source : BofA Global Quantitative Strategy, MSCI

Style Performance

Chart 8: Global Quantessential Style Rel Performance: Last Week

Last week the best performing style was Growth

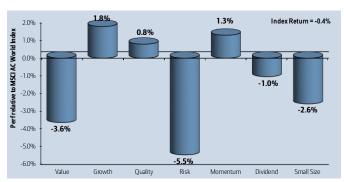


Source : BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg

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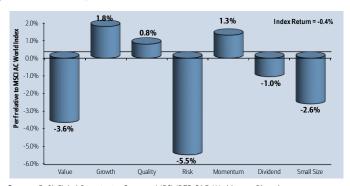
Chart 10: Global Quantessential Style Relative Performance: MTD

Growth is the best performing style this month



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

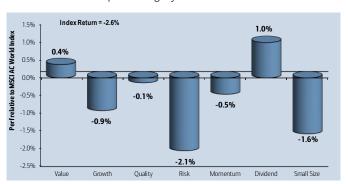
Chart 12: Global Quantessential Style Relative Performance: YTD YTD: Growth has performed the best



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

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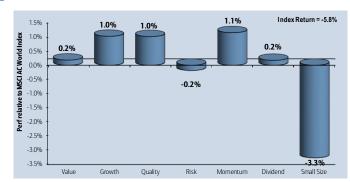
Chart 9: Asia Pac Quantessential Style Rel Performance: Last Week Dividend was the best performing style last week



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

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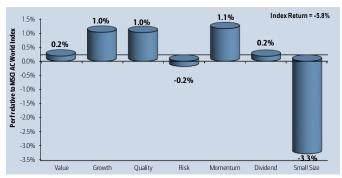
Chart 11: Asia Pac Quantessential Style Relative Performance: MTDMomentum is the best performing style this month



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

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Chart 13: Asia Pac Quantessential Style Relative Performance: YTD YTD: Momenutm has performed the best



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

Earnings Revision Ratio

Chart 14: Global Earnings Revision Ratio - Weekly

ERR fell in World last week and the trend moderated

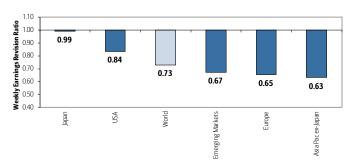


Source: BofA Global Quantitative Strategy, MSCI, IBES

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Chart 16: Global Regions Earnings Revision Ratio - Weekly

Japan has the strongest ERR

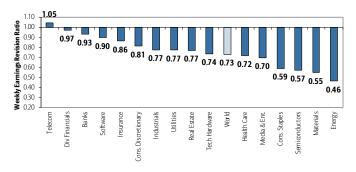


Source: BofA Global Quantitative Strategy, MSCI, IBES

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Chart 18: Global Sectors Earnings Revision Ratio - Weekly

1 out of 16 sectors have a ratio above 1.0



Source: BofA Global Quantitative Strategy, MSCI, IBES

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Chart 15: Asia Pac Earnings Revision Ratio - Weekly

Earnings revisions fell in Asia Pac ex-Japan last week

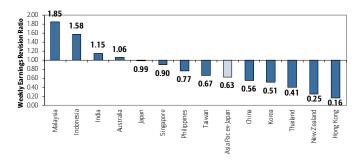


Source: BofA Global Quantitative Strategy, MSCI, IBES

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Chart 17: Asia Pac Countries Earnings Revision Ratio - Weekly

Earnings trend in strongest in Malaysia and weakest in Hong Kong

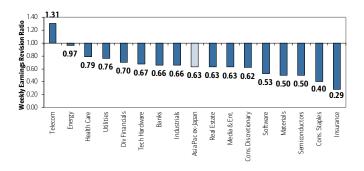


Source: BofA Global Quantitative Strategy, MSCI, IBES

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Chart 19: Asia Pac Sectors Earnings Revision Ratio - Weekly

There are more upgrades than downgrades in 1 out of 16 sectors



Source : BofA Global Quantitative Strategy, MSCI, IBES



Table 2: Global Region/Sector/Style - Earnings Revision Ratio ERR fell in World last week and the trend moderated

Regions/Sectors	Oct-23	Nov-23	Dec-23	Jan-24 - Wk1	Jan-24 - Wk2	Jan-24 - Wk3	Jan-24 - Wk4	Jan-24 - Wk5
World	0.74	0.66	0.82	0.87	0.85	0.81	0.76	0.73
USA	0.65	0.72	0.93	0.98	0.96	0.87	0.88	0.84
Europe	0.76	0.73	0.70	0.85	0.87	0.80	0.68	0.65
Japan	1.19	1.05	1.25	0.89	0.99	0.98	1.02	0.99
Asia Pac ex-Japan	0.66	0.49	0.69	0.82	0.76	0.71	0.66	0.63
Emerging Markets	0.71	0.55	0.74	0.86	0.81	0.77	0.70	0.67
Global - Banks	0.80	0.94	1.03	1.27	1.23	1.05	1.03	0.93
Global - Cons. Discretionary	0.84	0.73	0.82	0.86	0.84	0.81	0.86	0.81
Global - Cons. Staples	0.74	0.61	0.75	0.78	0.79	0.72	0.61	0.59
Global - Div Financials	0.45	0.57	1.11	1.01	0.99	1.08	1.00	0.97
Global - Energy	1.29	1.31	0.59	0.49	0.46	0.55	0.51	0.46
Global - Health Care	0.73	0.58	0.81	0.83	0.82	0.78	0.70	0.72
Global - Industrials	0.81	0.70	0.90	0.94	0.96	0.87	0.84	0.77
Global - Insurance	1.38	1.33	1.16	1.00	1.07	0.97	0.75	0.86
Global - Materials	0.46	0.34	0.66	0.76	0.71	0.63	0.61	0.55
Global - Media & Ent.	0.83	0.57	0.76	0.92	0.83	0.74	0.71	0.70
Global - Real Estate	0.66	0.68	0.73	0.85	0.87	0.76	0.78	0.77
Global - Semiconductors	0.57	0.41	0.79	0.97	0.80	0.55	0.52	0.57
Global - Software	0.77	0.81	0.93	0.80	0.93	0.92	0.88	0.90
Global - Tech Hardware	0.69	0.54	0.67	0.96	0.88	0.93	0.79	0.74
Global - Telecom	0.86	0.81	0.76	1.27	1.26	1.13	0.93	1.05
Global - Utilities	0.87	0.76	0.95	0.69	0.70	0.94	0.91	0.77
Global - Value	0.93	0.73	0.90	0.90	0.92	0.86	0.80	0.71
Global - Growth	1.23	1.13	1.19	1.14	1.12	1.16	1.05	1.05
Global - Quality	0.82	0.77	1.11	1.14	1.15	1.06	1.02	1.03
Global - Risk	0.74	0.70	0.74	0.99	0.91	0.79	0.74	0.66
Global - Momentum	1.29	1.42	1.56	1.35	1.38	1.38	1.44	1.47
Global - Dividend	0.73	0.64	0.69	0.76	0.75	0.65	0.64	0.58
Global - Small Size	0.55	0.56	0.67	0.85	0.86	0.79	0.67	0.61

Source : BofA Global Quantitative Strategy, MSCI, IBES



Quantessential Styles: Earnings Revision Ratio

Chart 20: Global Value Earnings Revision Ratio - Weekly

Earnings revisions for Value 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 22: Global Quality Earnings Revision Ratio - Weekly

The trend is weak but earnings revisions improved in Quality 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

Earnings revisions improved in Growth last week but remains below long term average



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

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Chart 23: Global Risk Earnings Revision Ratio - Weekly

ERR fell in Risk last week and the trend moderated



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

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Chart 24: 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 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

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Chart 26: Global Small Size Earnings Revision Ratio - Weekly

Earnings revisions fell in Small Size last week



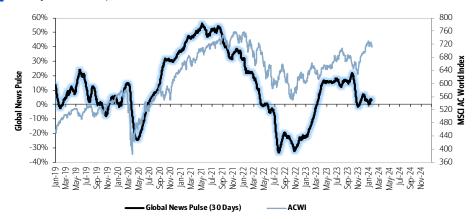
Source: BofA Global Quantitative Strategy, MSCI, IBES, S&P, Worldscope, Bloomberg



NewsAlpha

Chart 27: Global News Pulse (last 30 days)

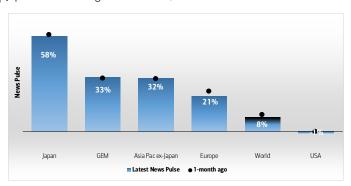
Globally news has improved at stock level in the last two weeks



Source: BofA Global Quantitative Strategy, MSCI, Ravenpack

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 30: Inflation News Pulse vs. Global CPI

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



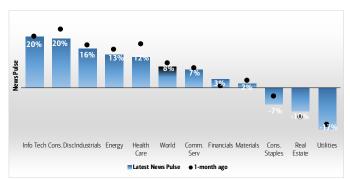
Source: BofA Global Quantitative Strategy, MSCI, Ravenpack

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Chart 29: 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 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



Chart 32: Top News Mentions (last 30 days)

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

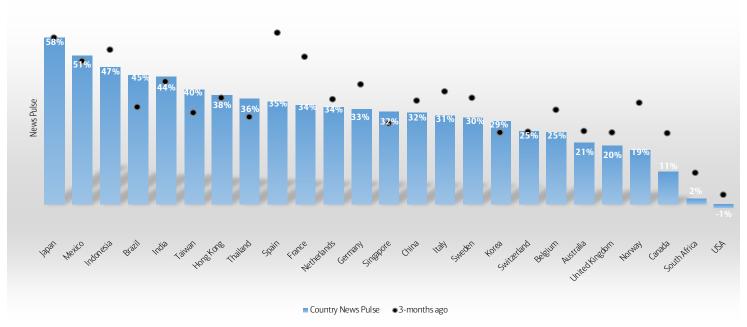


 $\textbf{Source:} \ \mathsf{BofA} \ \mathsf{Global} \ \mathsf{Quantitative} \ \mathsf{Strategy}, \ \mathsf{RavenPack}$

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Chart 33: Current News Pulse by Global Countries

News aggregate is highest in Japan and Mexico

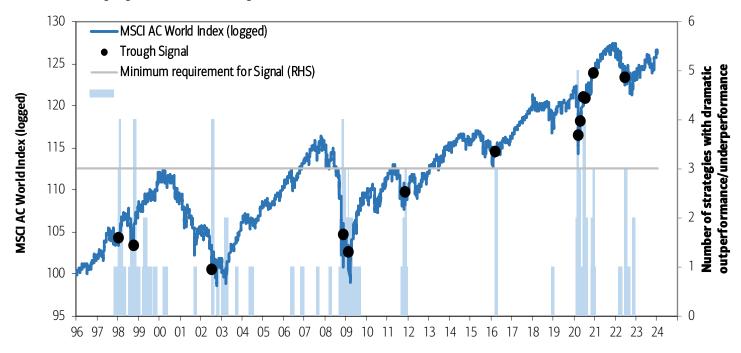


Source : BofA Global Quantitative Strategy, MSCI, ExShare, RavenPack

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



 $\textbf{Source:} BofA \ Global \ Quantitative \ Strategy, MSCI, \ Ravenpack, \ IBES, \ Worldscope, \ Exshare, \ S\&P, \ Bloomberg$

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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

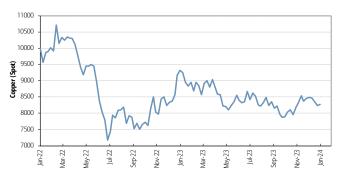
	Subs 1-month MSCI AC World Index	Subs 3-months MSCI AC World	Subs 6-months MSCI AC World	Subs 1-year MSCI AC World Index
Signal Dates	returns	Index returns	Index returns	returns
24-Jun-22	-0.1%	-8.5%	-1.2%	10.3%
10-Dec-20	4.3%	6.9%	14.3%	17.6%
10-Jul-20	4.1%	9.2%	21.8%	33.6%
8-Jun-20	-0.6%	3.5%	16.0%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

 $\textbf{Source}: \textbf{BofA Global Quantitative Strategy, MSCI, Ravenpack, IBES, Worldscope, Exshare, S\&P, Bloomberg$



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

Copper price increased (+0.4%)

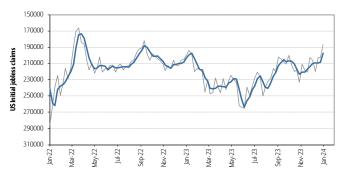


Source: BofA Global Quantitative Strategy, Bloomberg

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

US initial jobless claims fell by -16,000 to 187,000



Source: BofA Global Quantitative Strategy, Bloomberg

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Chart 40: Global Credit Spreads, weekly 2 years

Global credit spreads narrowed (-5 bps)



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

AUD depreciated (-1.3%)

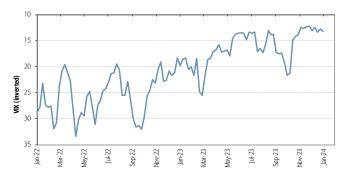


Source: BofA Global Quantitative Strategy, Bloomberg

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

VIX moved from 12.7 to 13.3

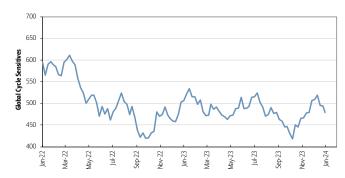


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 41: Global Cycle Sensitives, weekly returns 2 year

Global Cycle Sensitives underperformed (-3.0%)

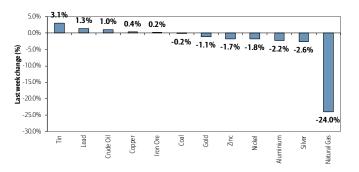


Source: BofA Global Quantitative Strategy, Bloomberg

Commodities

Chart 42: Hard Commodities - Last week change

Natural Gas fell the most last week

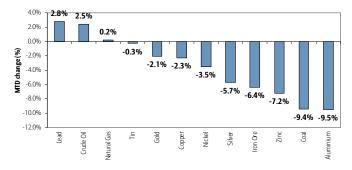


Source: BofA Global Quantitative Strategy, Bloomberg

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Chart 44: Hard Commodities - MTD change

Aluminium fell the most MTD

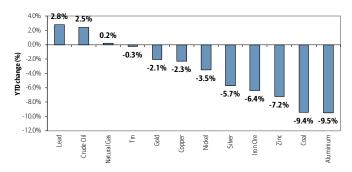


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 46: Hard Commodities - YTD change

Lead increased the most YTD

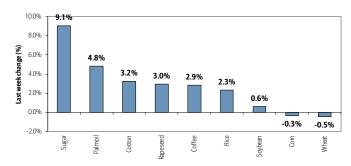


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 43: Soft Commodities - Last week change

Sugar increased the most last week

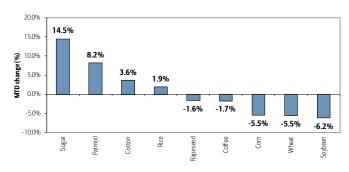


Source: BofA Global Quantitative Strategy, Bloomberg

BofA GLOBAL RESEARCH

Chart 45: Soft Commodities - MTD change

Sugar increased the most MTD

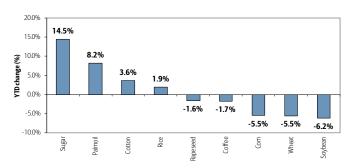


Source: BofA Global Quantitative Strategy, Bloomberg

BofA GLOBAL RESEARCH

Chart 47: Soft Commodities - YTD change

Sugar increased the most YTD



Source: BofA Global Quantitative Strategy, Bloomberg



Volatility

Chart 48: USA Volatility (VIX Index) - Inverted

VIX Index moved from 12.7 to 13.3

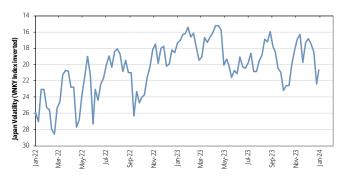


Source: BofA Global Quantitative Strategy, Bloomberg

BofA GLOBAL RESEARCH

Chart 50: Japan Volatility (VNKY Index) - Inverted

VNKY Index moved from 22.4 to 20.7

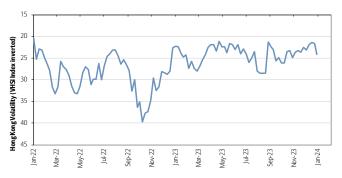


Source: BofA Global Quantitative Strategy, Bloomberg

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

VHSI Index moved from 21.6 to 24.1

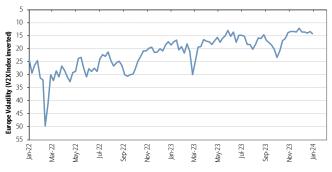


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 49: Europe Volatility (V2X Index) - Inverted

V2X Index moved from 13.4 to 14.2



Source: BofA Global Quantitative Strategy, Bloomberg

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Chart 51: Emerging Markets Volatility (VXEEM Index) - Inverted VXEEM Index moved from 16.5 to 18.5



Source: BofA Global Quantitative Strategy, Bloomberg

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Chart 53: Korea Volatility (VKOSPI Index) - Inverted

VKOSPI Index moved from 16.8 to 17.6



 $\textbf{Source:} \ \mathsf{BofA} \ \mathsf{Global} \ \mathsf{Quantitative} \ \mathsf{Strategy,} \ \mathsf{Bloomberg}$

Rates

Chart 54: USA 10-year Bond Yield

US 10-year yield up by 18 bps to 4.12%

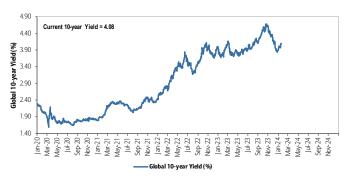


Source: BofA Global Quantitative Strategy, Bloomberg

BofA GLOBAL RESEARCH

Chart 56: Global 10-year Bond Yield

Current 10-yr Global GDP weighted bond yield is 4.08%

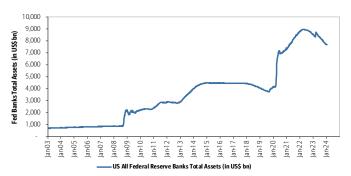


Source : BofA Global Quantitative Strategy, Bloomberg

BofA GLOBAL RESEARCH

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

Last week, Fed Reserve's balance sheet reduced by US\$-7bn

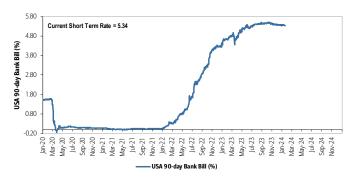


Source : BofA Global Quantitative Strategy, Bloomberg

BofA GLOBAL RESEARCH

Chart 55: USA 90-day Bank Bill

US 90-day yield fell by -2 bps to 5.34%

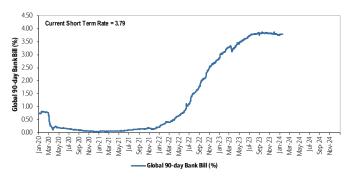


Source: BofA Global Quantitative Strategy, Bloomberg

BofA GLOBAL RESEARCH

Chart 57: Global 90-day Bank Bill

Current 90d Global GDP weighted bond yield is 3.79%

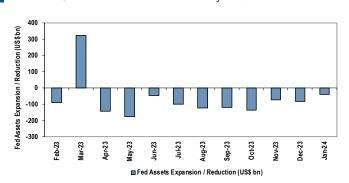


Source: BofA Global Quantitative Strategy, Bloomberg

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Chart 59: US Federal Reserve Assets Expansion / Reduction (US\$ bn)

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

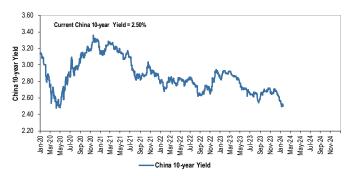


Source: BofA Global Quantitative Strategy, Bloomberg



Chart 60: China 10-year Bond Yield

Current China 10-year Yield = 2.50%

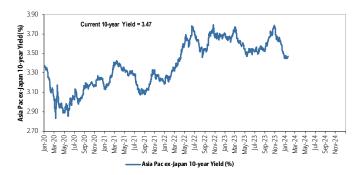


Source : BofA Global Quantitative Strategy, Bloomberg

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

Current 10-year Asia Pac GDP weighted bond yield is 3.47%

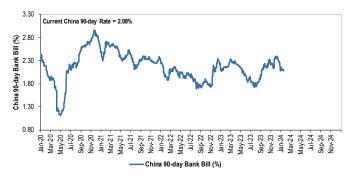


Source : BofA Global Quantitative Strategy, Bloomberg

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Chart 61: China 90-day Bank Bill

Current China 90-day Rate = 2.08%



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 3.14%



 $\textbf{Source:} \ \mathsf{BofA} \ \mathsf{Global} \ \mathsf{Quantitative} \ \mathsf{Strategy,} \ \mathsf{Bloomberg}$

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%

 $\textbf{Source:} \ \mathsf{BofA} \ \mathsf{Global} \ \mathsf{Quantitative} \ \mathsf{Strategy,} \ \mathsf{MSCI,} \ \mathsf{Bloomberg}$



Valuation

Chart 64: Global Price-to-Book trailing

The latest Global Price-to-Book ratio is 2.81



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 1% in the subsequent 12m on average

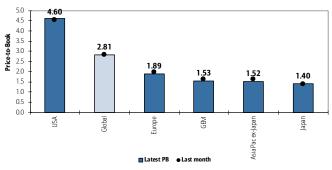


Source : BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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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 65: Global Prospective PE

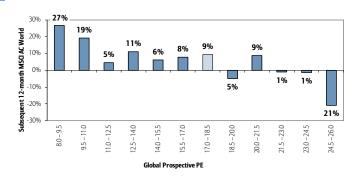
The latest Global Prospective PE is 17.2



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 9% in the subsequent 12m on average

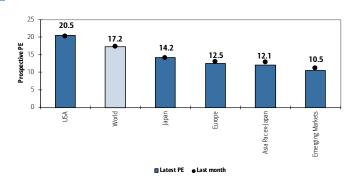


Source: BofA Global Quantitative Strategy, MSCI, IBES, Worldscope

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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



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 is currently strongest for Insurance, Software, and Div Financials

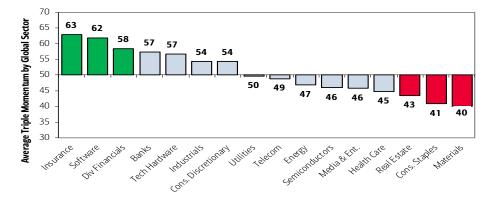
Average Triple Momentum Rank	Banks	Cons. Discretionary	Cons. Staples	Div Financials	Energy	Health Care	Industrials	Insurance	Materials	Media & Ent.	Real Estate	Semiconductors	Software	Tech Hardware	Telecom	Utilities	Region
Canada	28	42	47	44	42		39	63	13		44		71		27	20	39
USA																	
Belgium	9		47			41		41	1							84	38
Denmark	96	82	43			47	35	5	73							20	48
Finland			45		6	48	43	10	44					21	34	27	33
France	64	52	29	66	65	30	60	89	49	68	49	10	61		48	57	53
Germany	96	38	52	91		31	44	87	38	76	40	41	64		61	38	50
Italy	75	44			30	35	65								82	80	60
Netherlands	34	81	17	73		67	51	91	31	82		71			34		56
Spain	71	89			6	19	93								45	52	58
Sweden	53	31		47		31	45		26					55	56		44
Switzerland		15	47	30		46	61	63	30				72	94	32		46
UK																	
Australia	57	60	32	41	38	60	25	71	54	27	33		75		13	28	45
Hong Kong	5	40	72	33		74	43	68			30	14	100			39	40
Japan	78	57	40	73	74	46	55	80	56	32	61	49	63	55	48	82	55
Singapore	51	72	17				70			15	19				21	100	48
China	37	57	29	68	52	57	54	18	45	47	24	22	5	64		51	48
India	68	73	52	71	68	78	71	66	53	84	93		54		53	70	66
Korea																	
Taiwan		34	13	63	34		55	49	30			51		72	41		56
Brazil	64	64	46		84		51	62	55						74	70	63
Mexico	93		62				47		39						45		56
Poland	82				16				30	16						82	40
South Africa	71	51	30	55		69	77	50	47		98				26		54
Asia Pac ex-Japan	56	61	40	58	54	61	55	49	45	46	37	39	56	65	48	55	52
Emerging ex-Asia	76	64	54	55	56	81	64	65	40	16	92				54	65	62
Europe	52	47	45	60	23	40	51	60	32	59	49	56	66	56	48	54	48
Japan	78	57	40	73	74	46	55	80	56	32	61	49	63	55	48	82	55
United States	26	50	36	57	45	37	54	69	37	51	38	46	63	44	43	32	47
Global	57	54	41	58	47	45	54	63	40	46	43	46	62	57	49	50	

 $\textbf{Source:} BofA\ Global\ Quantitative\ Strategy,\ MSCI,\ IBES,\ FactSet,\ RavenPack$

BofA GLOBAL RESEARCH

Chart 70: Global Sectors - Average Triple Momentum Rank

Triple Momentum is currently strongest for Insurance, Software, and Div Financials



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



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

Chart 72: 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 - Health Care and lowest for China - Insurance



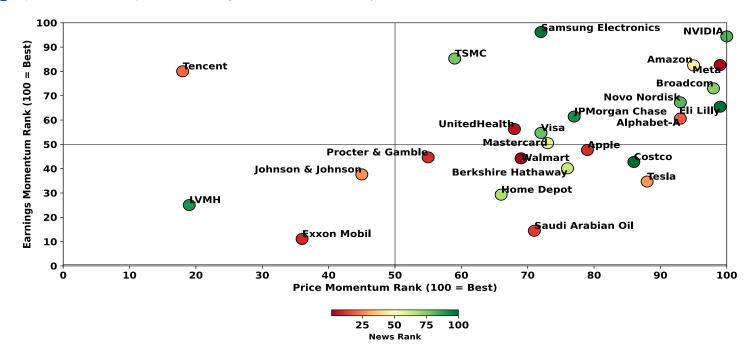
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack



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 Samsung Electronics, NVIDIA and Eli Lilly

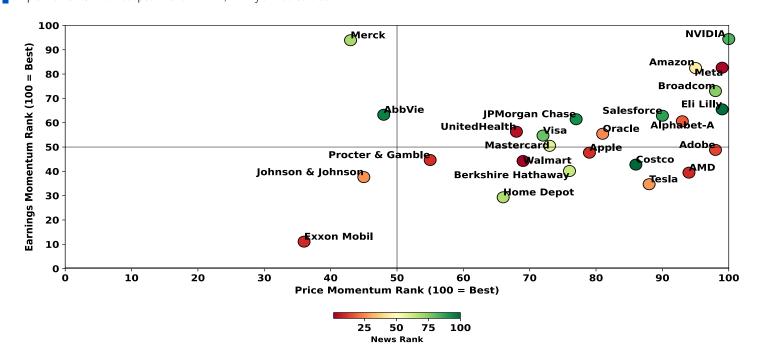


Source: BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

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

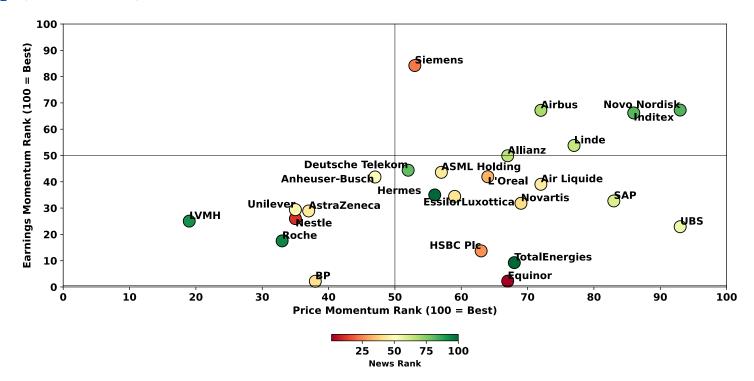


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack



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

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

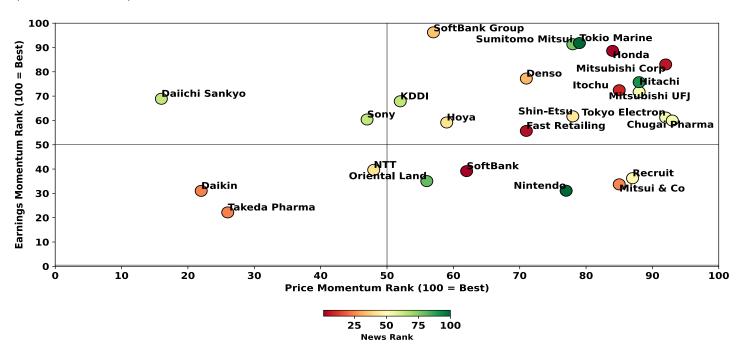


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

BofA GLOBAL RESEARCH

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

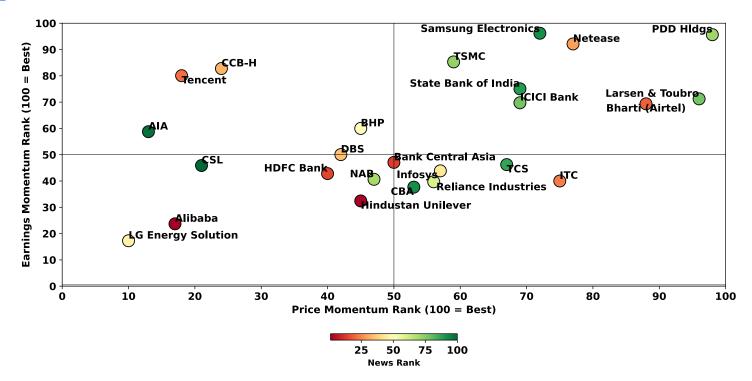
Triple Momentum is most positive for Tokio Marine, Hitachi and Sumitomo Mitsui



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

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

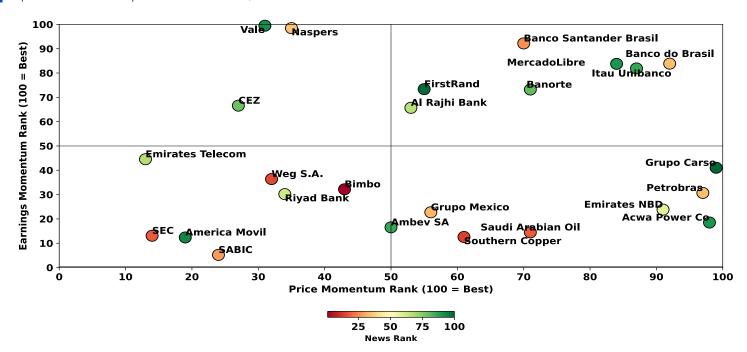
Triple Momentum is most positive for Samsung Electronics, PDD Hldgs and Larsen & Toubro



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, Itau Unibanco and FirstRand



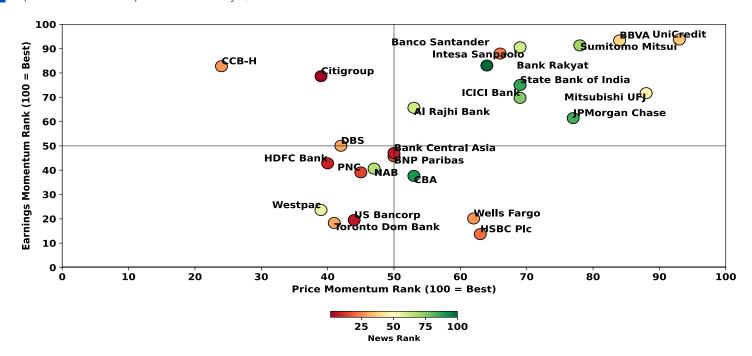
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack



Global Sectors: Triple Momentum Charts

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

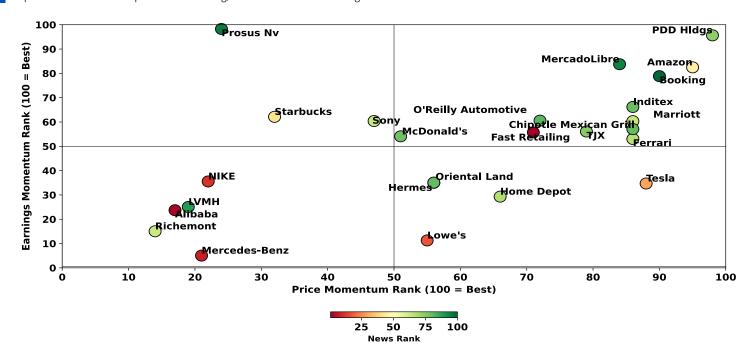
Triple Momentum is most positive for Bank Rakyat, State Bank of India and Sumitomo Mitsui



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

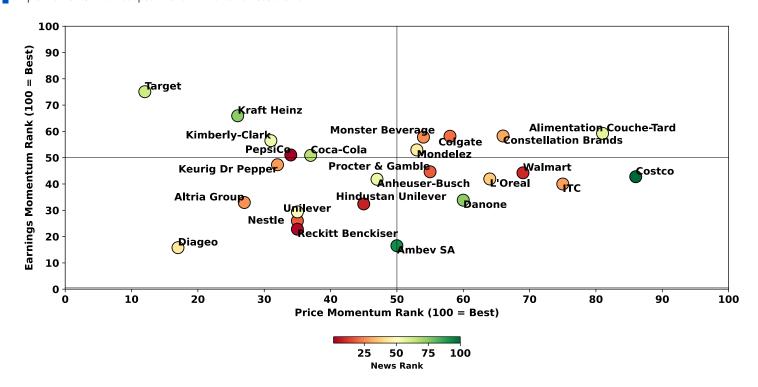
BofA GLOBAL RESEARCH

Chart 80: Consumer Discretionary: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour) Triple Momentum is most positive for Booking, MercadoLibre and PDD Hldgs



 $\textbf{Source:} \ \mathsf{BofA} \ \mathsf{Global} \ \mathsf{Quantitative} \ \mathsf{Strategy,} \ \mathsf{MSCI,} \ \mathsf{IBES,} \ \mathsf{FactSet,} \ \mathsf{RavenPack}$

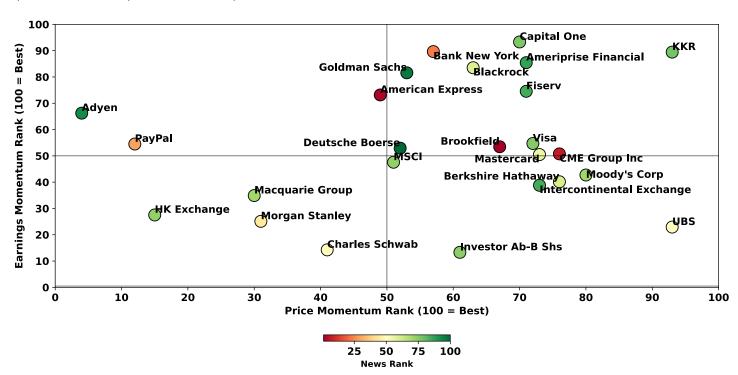
Chart 81: Consumer Staples: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)
Triple Momentum is most positive for Alimentation Couche-Tard



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 KKR, Ameriprise Financial and Goldman Sachs

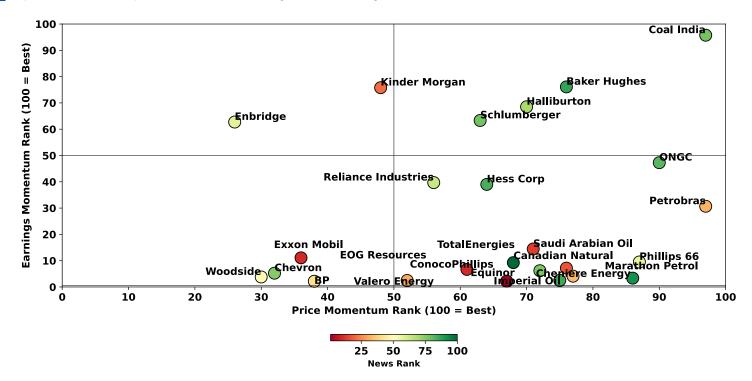


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack



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

Triple Momentum is most positive for Coal India, Baker Hughes and Schlumberger

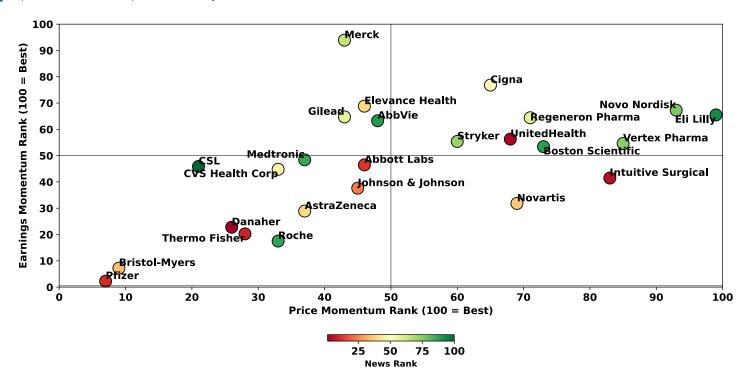


Source: BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

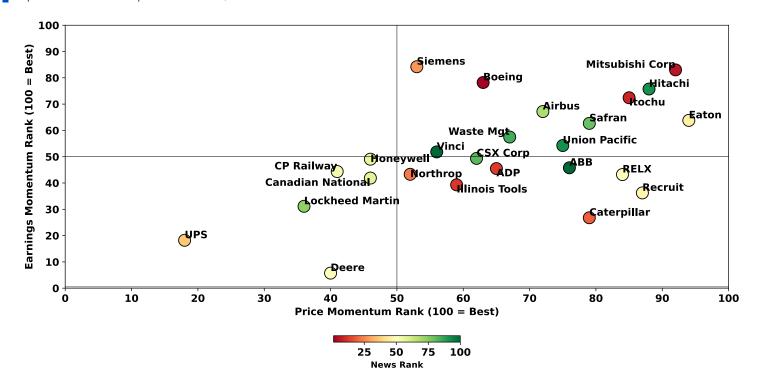
Triple Momentum is most positive for Eli Lilly, Novo Nordisk and Boston Scientific



 $\textbf{Source:} \ \mathsf{BofA} \ \mathsf{Global} \ \mathsf{Quantitative} \ \mathsf{Strategy,} \ \mathsf{MSCI,} \ \mathsf{IBES,} \ \mathsf{FactSet,} \ \mathsf{RavenPack}$

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

Triple Momentum is most positive for Hitachi, Union Pacific and Vinci

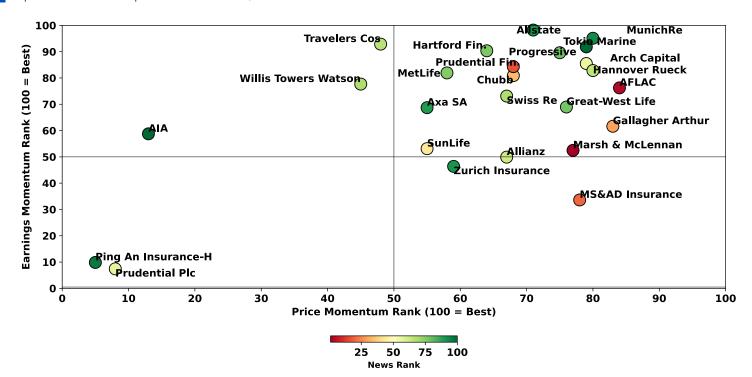


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

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

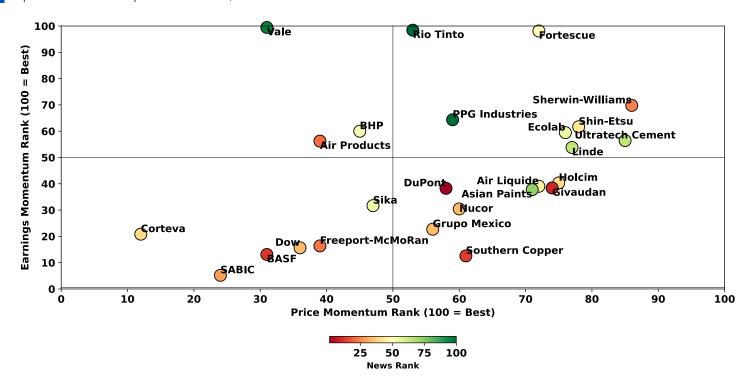


 $\textbf{Source:} BofA\ Global\ Quantitative\ Strategy,\ MSCI,\ IBES,\ FactSet,\ RavenPack$



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

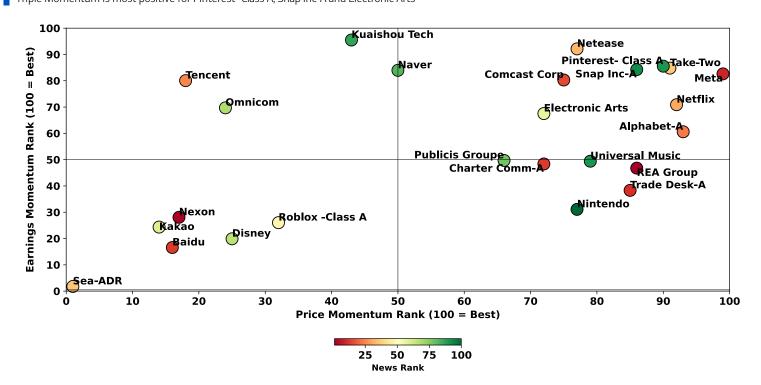
Triple Momentum is most positive for Rio Tinto, PPG Industries and Ultratech Cement



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

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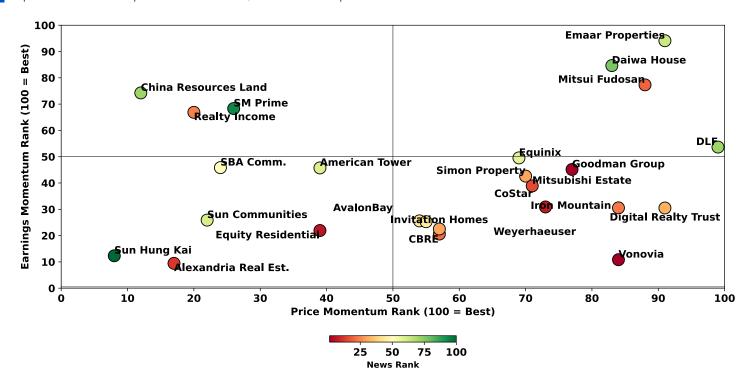
Chart 88: Media & Entertainment: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour) Triple Momentum is most positive for Pinterest- Class A, Snap Inc-A and Electronic Arts



 $\textbf{Source:} \ \mathsf{BofA} \ \mathsf{Global} \ \mathsf{Quantitative} \ \mathsf{Strategy,} \ \mathsf{MSCI,} \ \mathsf{IBES,} \ \mathsf{FactSet,} \ \mathsf{RavenPack}$

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

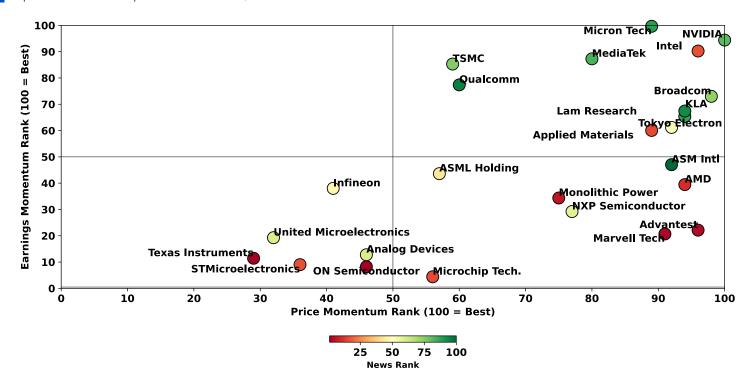
Triple Momentum is most positive for Daiwa House, DLF and Emaar Properties



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, NVIDIA and MediaTek

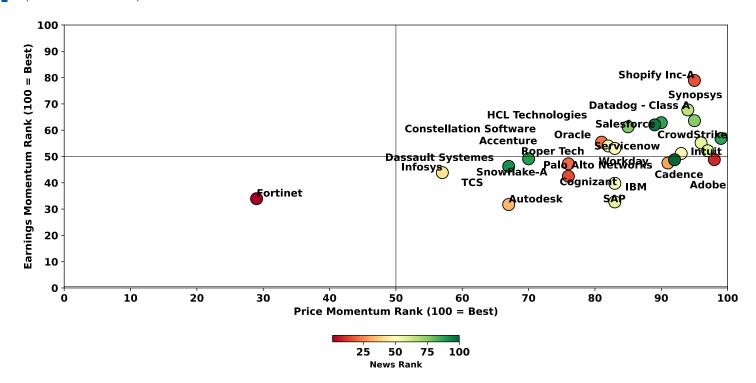


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack



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

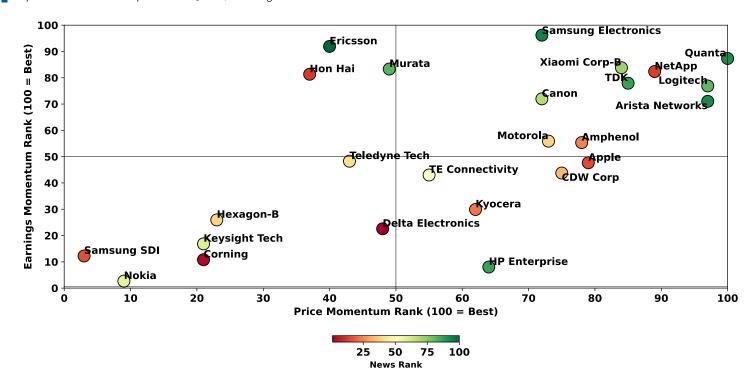
Triple Momentum is most positive for Constellation Software, CrowdStrike and Salesforce



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

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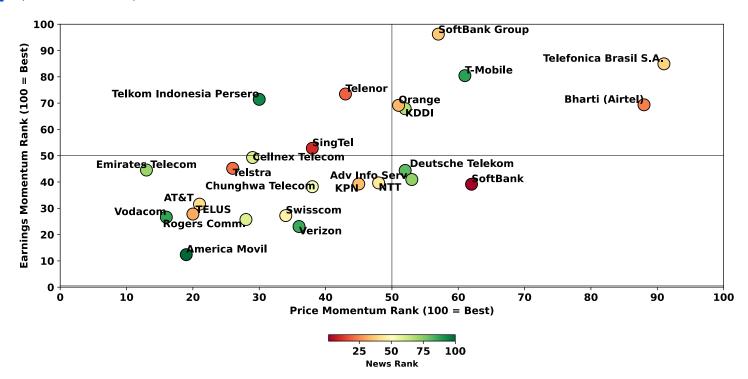
Chart 92: Tech Hardware: Earnings Momentum (vertical axis), Price Momentum (horizontal axis), News Momentum (colour)
Triple Momentum is most positive for Quanta, Samsung Electronics and Arista Networks



 $\textbf{Source:} \ \mathsf{BofA} \ \mathsf{Global} \ \mathsf{Quantitative} \ \mathsf{Strategy,} \ \mathsf{MSCI,} \ \mathsf{IBES,} \ \mathsf{FactSet,} \ \mathsf{RavenPack}$

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

Triple Momentum is most positive for T-Mobile and KDDI

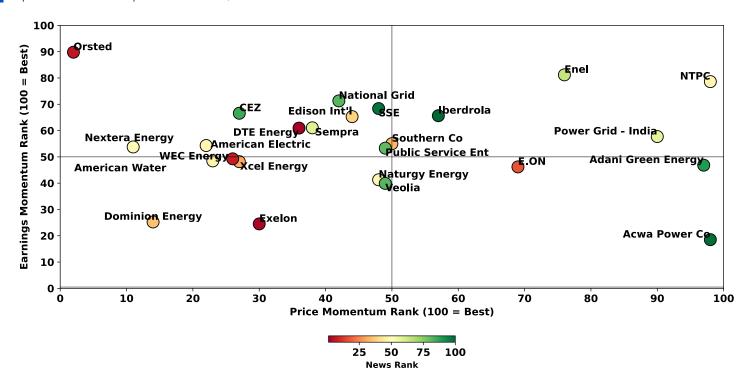


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

Triple Momentum is most positive for Iberdrola, Enel and Power Grid - India



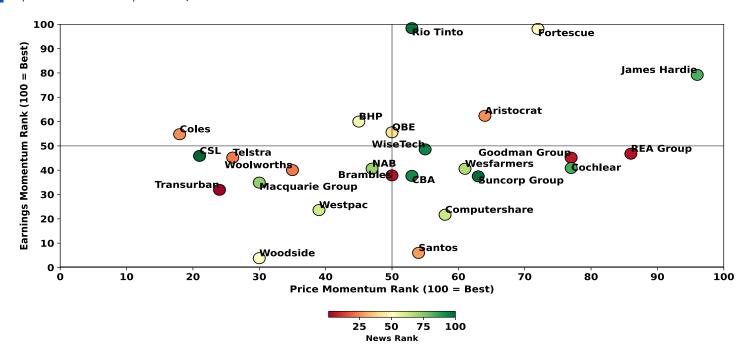
Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack



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 Rio Tinto

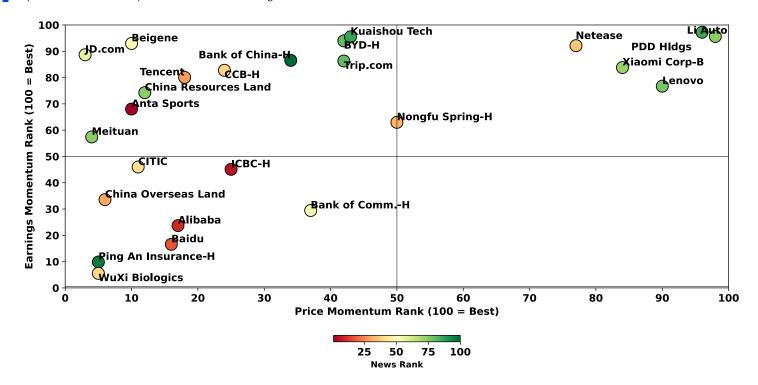


Source : BofA Global Quantitative Strategy, MSCI, IBES, FactSet, RavenPack

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

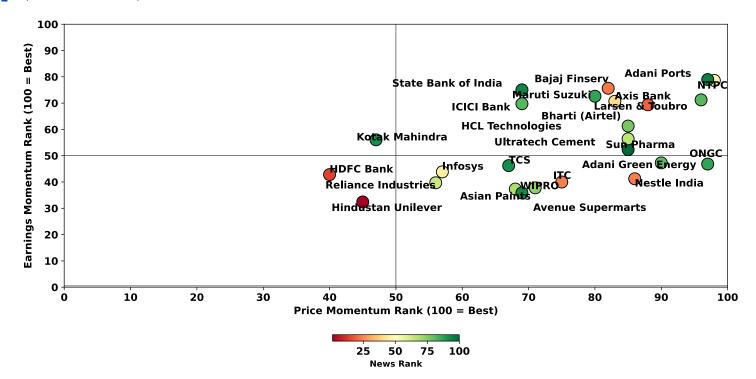
Triple Momentum is most positive for Li Auto, PDD Hldgs and Lenovo



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

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

Triple Momentum is most positive for Adani Ports, Larsen & Toubro and Maruti Suzuki



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

Global Triple Momentum screens

Table 6: Global Positive Triple Momentum - Top stocks by Triple Momentum rankTop Global stocks with Triple Momentum ranks

Consan CSAN3 BZ Brazil Energy 6,879 24.5 Ultrapar Participacoes UGPA3 BZ Brazil Energy 6,259 24.8 Li Auto 2015 HK China Cons. Discretionary 24,890 134.2 New Oriental Education & Tec 9901 HK China Cons. Discretionary 54,43 63.9 Tala Education ADR TAL US China Cons. Discretionary 54,43 63.9 Talanx TLX GR Germany Insurance 18,422 11.0 Eurobank Ergasias EUROB GA Greece Banks 7,038 8.1 Chinasoft Int1 354 HK Hong Kong Software 1,966 12.6 CDTP Bank OTP HB Hungary Banks 13,724 18.3 Hero Motor HMCL IN India Diverinancials 14,316 66.6 REC BECL IN India Diverinancials 14,316 66.6 Shriam Finance ABPL IN India Hudustrials 18,316<	Common Name	DDC Code	Country	Santan	MCAP (Total	Avg Daily TO (6m
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Mazda Motor 7261 JP Japan Cons. Discretionary 7,389 60.5 Daiwa Securities 8601 JP Japan Div Financials 10,951 34.5 Sumitomo Corp 8053 JP Japan Industrials 27,615 79.4 Tokio Marine 8766 JP Japan Insurance 50,473 108.7 Mitsubishi Chemical 4188 JP Japan Materials 9,143 31.4 Aegon AGN NA Netherlands Insurance 11,964 33.8 Dallah Health DALLAH AB Saudi Arabia Insurance 4,381 4.8 Co For Coop Insurance TAWUNIYA AB Saudi Arabia Insurance 4,999 12.6 Sembcorp Ind SCI SP Singapore Utilities 7,181 21.9 Standard Bank SBK SJ South Africa Banks 17,381 30.6 NEPI Rockcastle NRP SJ South Korea Tech Hardware 4,265 9.5 Samsung Electronics 005930 KS South Korea	Bank Rakyat	BBRI IJ	Indonesia	Banks	56,295	41.5
Daiwa Securities 8601 JP Iapan Div Financials 10,951 34.5 Sumitomo Corp 8053 JP Iapan Industrials 27,615 79.4 Tokio Marine 8766 JP Iapan Insurance 50,473 108.7 Mitsubishi Chemical 4188 JP Iapan Materials 9,143 31.4 Aegon AGN NA Netherlands Insurance 11,964 33.8 Dallah Health DALLAH AB Saudi Arabia Health Care 4,381 4.8 Co For Coop Insurance TAWUNIYA AB Saudi Arabia Insurance 4,999 12.6 Sembcorp Ind SCI SP Singapore Utilities 7,181 21.9 Standard Bank SBK SJ South Africa Banks 17,381 30.6 NEPI Rockcastle NRP SJ South Africa Real Estate 4,265 9.5 Samsung Electronics 005930 KS South Korea Tech Hardware 10,749 82.7 Compal 2324 TT Taiwan T	Mediobanca	MB IM	Italy	Banks	11,105	38.7
Sumitomo Corp 8053 JP Iapan Industrials 27,615 79,4 Tokio Marine 8766 JP Iapan Insurance 50,473 108,7 Mitsubishi Chemical 4188 JP Iapan Materials 9,143 31,4 Aegon AGN NA Netherlands Insurance 11,964 33.8 Dallah Health DALLAH AB Saudi Arabia Health Care 4,381 4.8 Co For Coop Insurance TAWUNIYA AB Saudi Arabia Insurance 4,999 12.6 Sembcorp Ind SCI SP Singapore Utilities 7,181 21.9 Standard Bank SBK SJ South Africa Banks 17,381 30.6 NEPI Rockcastle NRP SJ South Africa Real Estate 4,265 9.5 Samsung Electronics 005930 KS South Korea Tech Hardware 10,749 82.7 Compal 2324 TT Taiwan Tech Hardware 10,749 82.7 Compal 2324 TT Taiwan Tech Hardwa	Mazda Motor	7261 JP	lapan	Cons. Discretionary	7,389	60.5
Tokio Marine 8766 JP Iapan Insurance 50,473 108.7 Mitsubishi Chemical 4188 JP Iapan Materials 9,143 31.4 Aegon AGN NA Netherlands Insurance 11,964 33.8 Dallah Health DALLAH AB Saudi Arabia Health Care 4,381 4.8 Co For Coop Insurance TAWUNIYA AB Saudi Arabia Insurance 4,999 12.6 Sembcorp Ind SCI SP Singapore Utilities 7,181 21.9 Standard Bank SBK SJ South Africa Banks 17,381 30.6 NEPI Rockcastle NRP SJ South Africa Real Estate 4,265 9.5 Samsung Electronics 005930 KS South Korea Tech Hardware 333,042 733.1 Asustek 2357 TT Taiwan Tech Hardware 5,088 46.8 Quanta 2382 TT Taiwan Tech Hardware 11,066 175.4 Next NXT LN United Kingdom Div Fin	Daiwa Securities	8601 JP	lapan	Div Financials	10,951	34.5
Mitsubishi Chemical 4188 JP lapan Materials 9,143 31.4 Aegon AGN NA Netherlands Insurance 11,964 33.8 Dallah Health DALLAH AB Saudi Arabia Health Care 4,381 4.8 Co For Coop Insurance TAWUNIYA AB Saudi Arabia Insurance 4,999 12.6 Sembcorp Ind SCI SP Singapore Utilities 7,181 21.9 Standard Bank SBK SJ South Africa Banks 17,381 30.6 NEPI Rockcastle NRP SJ South Africa Real Estate 4,265 9.5 Samsung Electronics 005930 KS South Korea Tech Hardware 333,042 733.1 Asustek 2357 TT Taiwan Tech Hardware 10,749 82.7 Compal 2324 TT Taiwan Tech Hardware 29,484 471.4 Wiwynn 6669 TT Taiwan Tech Hardware 11,066 175.4 Next NXT LN United Kingdom Div Fin	Sumitomo Corp	8053 JP	lapan	Industrials	27,615	79.4
AegonAGN NANetherlandsInsurance11,96433.8Dallah HealthDALLAH ABSaudi ArabiaHealth Care4,3814.8Co For Coop InsuranceTAWUNIYA ABSaudi ArabiaInsurance4,99912.6Sembcorp IndSCI SPSingaporeUtilities7,18121.9Standard BankSBK SJSouth AfricaBanks17,38130.6NEPI RockcastleNRP SJSouth AfricaReal Estate4,2659.5Samsung Electronics005930 KSSouth KoreaTech Hardware333,042733.1Asustek2357 TTTaiwanTech Hardware10,74982.7Compal2324 TTTaiwanTech Hardware5,08846.8Quanta2382 TTTaiwanTech Hardware29,484471.4Wiwynn6669 TTTaiwanTech Hardware11,066175.4NextNXT LNUnited KingdomCons. Discretionary13,34121.53i GroupIII LNUnited KingdomDiv Financials28,83132.4Wise - AWISE LNUnited KingdomDiv Financials10,8099.8Melrose IndustriesMRO LNUnited KingdomIndustrials32,55153.3BookingBKNG USUnited StatesCons. Discretionary129,081829.1ExpediaEXPE USUnited StatesCons. Discretionary20,479282.5WestRockWRK USUnited StatesMedia & Ent.21,588306.0	Tokio Marine	8766 JP	lapan	Insurance	50,473	108.7
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Co For Coop Insurance Sembcorp Ind SCI SP Singapore Utilities 7,181 21.9 Standard Bank SBK SJ South Africa Banks 17,381 30.6 NEPI Rockcastle NRP SJ South Africa Real Estate 4,265 9.5 Samsung Electronics 005930 KS South Korea Tech Hardware 333,042 733.1 Asustek 2357 TT Taiwan Tech Hardware 10,749 82.7 Compal 2324 TT Taiwan Tech Hardware 5,088 46.8 Quanta 2382 TT Taiwan Tech Hardware 11,066 175.4 Wiwynn 6669 TT Taiwan Tech Hardware 11,066 175.4 Wise - A WISE LN United Kingdom Div Financials 28,831 32.4 Wise - A WISE LN United Kingdom Div Financials 10,809 9.8 Melrose Industries MRO LN United Kingdom Industrials 9,856 23.4 Rolls-Royce RR/LN United Kingdom Industrials 32,551 53.3 Booking BKNG US United States Cons. Discretionary 129,081 829.1 Expedia EXPE US United States Media & Ent. 21,588 306.0 Micron Tech MU US United States Semiconductors 96,089 960.3	Aegon	AGN NA	Netherlands	Insurance	11,964	33.8
Sembcorp Ind SCI SP Singapore Utilities 7,181 21.9 Standard Bank SBK SJ South Africa Banks 17,381 30.6 NEPI Rockcastle NRP SJ South Africa Real Estate 4,265 9.5 Samsung Electronics 005930 KS South Korea Tech Hardware 333,042 733.1 Asustek 2357 TT Taiwan Tech Hardware 10,749 82.7 Compal 2324 TT Taiwan Tech Hardware 5,088 46.8 Quanta 2382 TT Taiwan Tech Hardware 29,484 471.4 Wiwynn 6669 TT Taiwan Tech Hardware 11,066 175.4 Next NXT LN United Kingdom Cons. Discretionary 13,341 21.5 3i Group III LN United Kingdom Div Financials 28,831 32.4 Wise - A WISE LN United Kingdom Industrials 9,856 23.4 Rolls-Royce RR/ LN United Kingdom Industrial	Dallah Health	DALLAH AB	Saudi Arabia	Health Care	4,381	4.8
Sembcorp IndSCI SPSingaporeUtilities7,18121.9Standard BankSBK SJSouth AfricaBanks17,38130.6NEPI RockcastleNRP SJSouth AfricaReal Estate4,2659.5Samsung Electronics005930 KSSouth KoreaTech Hardware333,042733.1Asustek2357 TTTaiwanTech Hardware10,74982.7Compal2324 TTTaiwanTech Hardware5,08846.8Quanta2382 TTTaiwanTech Hardware29,484471.4Wiwynn6669 TTTaiwanTech Hardware11,066175.4NextNXT LNUnited KingdomCons. Discretionary13,34121.53i GroupIII LNUnited KingdomDiv Financials28,83132.4Wise - AWISE LNUnited KingdomDiv Financials10,8099.8Melrose IndustriesMRO LNUnited KingdomIndustrials32,55153.3BookingBKNG USUnited StatesCons. Discretionary129,081829.1ExpediaEXPE USUnited StatesCons. Discretionary20,479282.5WestRockWRK USUnited StatesMaterials10,254102.9Pinterest- Class APINS USUnited StatesMedia & Ent.21,588306.0Micron TechMU USUnited StatesSemiconductors96,089960.3	Co For Coop Insurance	TAWUNIYA AB	Saudi Arabia	Insurance	4,999	12.6
Standard Bank SBK SJ South Africa Banks 17,381 30.6 NEPI Rockcastle NRP SJ South Africa Real Estate 4,265 9.5 Samsung Electronics 005930 KS South Korea Tech Hardware 333,042 733.1 Asustek 2357 TT Taiwan Tech Hardware 10,749 82.7 Compal 2324 TT Taiwan Tech Hardware 5,088 46.8 Quanta 2382 TT Taiwan Tech Hardware 29,484 471.4 Wiwynn 6669 TT Taiwan Tech Hardware 11,066 175.4 Next NXT LN United Kingdom Cons. Discretionary 13,341 21.5 3i Group III LN United Kingdom Div Financials 28,831 32.4 Wise - A WISE LN United Kingdom Div Financials 10,809 9.8 Melrose Industries MRO LN United Kingdom Industrials 9,856 23.4 Rolls-Royce RR/LN United Kingdom Industrials 32,551 53.3 Booking BKNG US United States Cons. Discretionary 20,479 282.5 WestRock WRK US United States Materials 10,254 102.9 Pinterest- Class A PINS US United States Media & Ent. 21,588 306.0 Micron Tech MU US United States Semiconductors 96,089 960.3		SCI SP	Singapore	Utilities		21.9
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					21,588	
Godaddy GDDY US United States Software 15,862 137.4	Micron Tech	MU US	United States	Semiconductors	96,089	960.3
	Godaddy	GDDY US	United States	Software	15,862	137.4

 $\textbf{Source:} BofA \ Global \ Quantitative \ Strategy, MSCI, IBES, \ FactSet, \ RavenPack$



Table 7: Global Negative Triple Momentum - Bottom stocks by Triple Momentum rankBottom Global stocks with Triple Momentum ranks

Company Name	BBG Code	Country	Sector	MCAP (Total \$USm)	Avg Daily TO (6m \$US m)
Transurban	TCL AU	Australia	Industrials	26,634	50.3
IGO	IGO AU	Australia	Materials	3,590	39.0
Pilbara Minerals	PLS AU	Australia	Materials	6,876	102.0
OMV AG	OMV AV	Austria	Energy	13,467	14.5
Umicore	UMI BB	Belgium	Materials	5,548	11.1
Brp Inc/Ca-Sub V	DOO CN	Canada	Cons. Discretionary	2,375	24.2
First Quantum	FM CN	Canada	Materials	6,462	70.1
Pan American Silver	PAAS CN	Canada	Materials	4,945	13.8
China Merchants Bank-H	3968 HK	China	Banks	14,765	81.4
Li Ning	2331 HK	China	Cons. Discretionary	5,454	87.1
China Feihe	6186 HK	China	Cons. Staples	4,325	8.3
New China Life-H	1336 HK	China	Insurance	1,751	10.2
China Nat'l Building-H	3323 HK	China	Materials	1,609	7.8
ENN Energy	2688 HK	China	Utilities	7,602	30.0
Kering	KER FP	France	Cons. Discretionary	47,327	90.7
Remy Cointreau	RCO FP	France	Cons. Staples	4,995	12.0
Sartorius Stedim	DIM FP	France	Health Care	22,201	14.9
Wacker Chemie	WCH GR	Germany	Materials	5,373	12.4
Xtep International	1368 HK	Hong Kong	Cons. Discretionary	1,353	6.5
Xinyi Glass	868 HK	Hong Kong	Industrials	3,801	8.0
Swire Prop	1972 HK	Hong Kong	Real Estate	11,161	4.7
HK & China Gas	3 HK	Hong Kong	Utilities	13,363	10.6
Aneka Tambang	ANTM IJ	Indonesia	Materials	2,532	4.5
Bank of Ireland	BIRG ID	Ireland	Banks	9,344	15.5
ICL	ICL IT	Israel	Materials	5,753	10.9
Nippon Building Fund	8951 JP	lapan	Real Estate	6,994	16.8
Petronas Chemicals	PCHEM MK	Malaysia	Materials	11,498	4.8
OCI	OCI NA	Netherlands	Materials	5,745	13.4
Cyfrowy Polsat SA	CPS PW	Poland	Media & Ent.	1,751	3.3
LG H&H	051900 KS	South Korea	Cons. Staples	3,762	26.1
NCSoft	036570 KS	South Korea	Media & Ent.	3,151	25.3
Swatch Group	UHR SW	Switzerland	Cons. Discretionary	7,070	28.9
Julius Baer	BAER SW	Switzerland	Div Financials	10,903	30.8
Momo.com	8454 TT	Taiwan	Cons. Discretionary	3,425	9.2
Burberry	BRBY LN	United Kingdom	Cons. Discretionary	5,680	24.6
JD Sports Fashion	JD/ LN	United Kingdom	Cons. Discretionary	7,312	12.2
Pepco Group Nv	PCO PW	United Kingdom	Cons. Discretionary	3,339	8.5
Anglo American (UK)	AAL LN	United Kingdom	Materials	30,081	68.3
WPP	WPP LN	United Kingdom	Media & Ent.	9,824	18.8
VF Corp	VFC US	United States	Cons. Discretionary	6,109	136.4
Illumina	ILMN US	United States	Health Care	21,510	278.9
Moderna	MRNA US	United States	Health Care	37,945	413.5
Paycom Software	PAYC US	United States	Industrials	11,706	181.9
Southwest Airlines	LUV US	United States	Industrials	17,863	229.7
Albemarle	ALB US	United States	Materials	13,510	392.2

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



Asia Pace ex-Japan Triple Momentum screens

Table 8: APxJ Positive Triple Momentum - Top 30 stocks by Triple Momentum rankTop 30 APxJ stocks with Triple Momentum ranks

Company Name	BBG Code	Country	Sector	MCAP (Total \$USm)	Avg Daily TO (6m \$US m)
Bluescope Steel	BSL AU	Australia	Materials	6,687	23.6
Rio Tinto	RIO AU	Australia	Materials	31,287	114.5
Bank of China-H	3988 HK	China	Banks	30,797	78.5
New Oriental Education & Tec	9901 HK	China	Cons. Discretionary	12,064	21.1
Tal Education-ADR	TAL US	China	Cons. Discretionary	5,443	63.9
Hansoh Pharma	3692 HK	China	Health Care	9,378	10.4
AAC Tech	2018 HK	China	Tech Hardware	3,142	15.2
Chinasoft Int'l	354 HK	Hong Kong	Software	1,966	12.6
Hero Motor	HMCL IN	India	Cons. Discretionary	10,586	28.6
REC	RECL IN	India	Div Financials	14,316	66.6
Shriram Finance	SHFL IN	India	Div Financials	10,401	30.8
Aurobindo Pharma	ARBP IN	India	Health Care	8,103	23.2
Adani Ports	ADSEZ IN	India	Industrials	29,307	66.8
Bharat Elec	BHE IN	India	Industrials	16,883	29.5
Bank Rakyat	BBRI IJ	Indonesia	Banks	56,295	41.5
Genting	GENT MK	Malaysia	Cons. Discretionary	3,813	3.6
Gamuda	GAM MK	Malaysia	Industrials	2,847	5.4
Malaysia Airports	MAHB MK	Malaysia	Industrials	2,702	4.7
Ayala Corp	AC PM	Philippines	Industrials	7,479	3.0
Int'l Container	ICT PM	Philippines	Industrials	8,689	4.2
Sembcorp Ind	SCI SP	Singapore	Utilities	7,181	21.9
Coway	021240 KS	South Korea	Cons. Discretionary	3,031	6.1
Kia	000270 KS	South Korea	Cons. Discretionary	26,303	68.2
Samsung Electronics	005930 KS	South Korea	Tech Hardware	333,042	733.1
Nien Made	8464 TT	Taiwan	Cons. Discretionary	3,183	4.5
Acer	2353 TT	Taiwan	Tech Hardware	4,454	44.8
Asustek	2357 TT	Taiwan	Tech Hardware	10,749	82.7
Compal	2324 TT	Taiwan	Tech Hardware	5,088	46.8
Largan Precision	3008 TT	Taiwan	Tech Hardware	10,591	57.1
Wiwynn	6669 TT	Taiwan	Tech Hardware	11,066	175.4

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



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

Company Name	BBG Code	Country	Sector	MCAP (Total \$USm)	Avg Daily TO (6m \$US m)
IGO	IGO AU	Australia	Materials	3,590	39.0
Pilbara Minerals	PLS AU	Australia	Materials	6,876	102.0
China Merchants Bank-H	3968 HK	China	Banks	14,765	81.4
Alibaba	9988 HK	China	Cons. Discretionary	170,559	451.3
Li Ning	2331 HK	China	Cons. Discretionary	5,454	87.1
China Feihe	6186 HK	China	Cons. Staples	4,325	8.3
New China Life-H	1336 HK	China	Insurance	1,751	10.2
China Nat'l Building-H	3323 HK	China	Materials	1,609	7.8
Baidu	9888 HK	China	Media & Ent.	28,611	103.5
Longfor	960 HK	China	Real Estate	7,460	41.4
Gds-Cl A	9698 HK	China	Software	1,021	3.7
ZTE-H	763 HK	China	Tech Hardware	1,412	17.2
ENN Energy	2688 HK	China	Utilities	7,602	30.0
Hang Seng Bank	11 HK	Hong Kong	Banks	20,170	16.0
Xtep International	1368 HK	Hong Kong	Cons. Discretionary	1,353	6.5
Xinyi Glass	868 HK	Hong Kong	Industrials	3,801	8.0
CK Asset	1113 HK	Hong Kong	Real Estate	16,029	19.5
Swire Prop	1972 HK	Hong Kong	Real Estate	11,161	4.7
HK & China Gas	3 HK	Hong Kong	Utilities	13,363	10.6
United Tractors	UNTR IJ	Indonesia	Energy	5,751	7.8
Aneka Tambang	ANTM IJ	Indonesia	Materials	2,532	4.5
PPB Group	PEP MK	Malaysia	Cons. Staples	4,427	2.1
LG H&H	051900 KS	South Korea	Cons. Staples	3,762	26.1
POSCO Future M	003670 KS	South Korea	Industrials	16,112	293.1
NCSoft	036570 KS	South Korea	Media & Ent.	3,151	25.3
Samsung SDI	006400 KS	South Korea	Tech Hardware	19,207	112.1
Feng Tay	9910 TT	Taiwan	Cons. Discretionary	4,994	10.5
Momo.com	8454 TT	Taiwan	Cons. Discretionary	3,425	9.2
Delta Electronics	2308 TT	Taiwan	Tech Hardware	23,545	72.3
Scg Packaging	SCGP TB	Thailand	Materials	3,837	11.1

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%

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