

Asia Pac Quant Focus Point

Impact of higher rates and USD on Asia

More US rate hikes could hurt equities and trigger rotation

The resilient economy and determined central banks are currently opposing forces on equity markets. As a result of the surprisingly strong economy and the related stubborn inflation, the US Fed may keep rates higher-for-longer which could also support the USD. Higher US rates and a stronger USD have the potential to weigh on the corporate [earnings outlook](#) in Asia, dampen [equity returns](#), and drive rotation within the region.

Equity Duration helps investors manage rate exposure

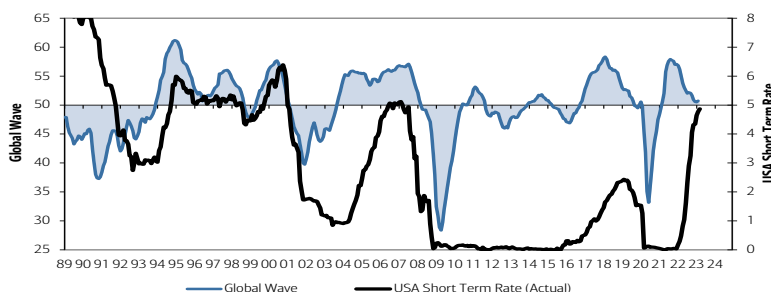
Bond yields are often sensitive to changing inflation expectations so investors can use [Equity Duration](#) (price sensitivity to bond yields) to control portfolio exposures. Our positioning analysis shows funds were underweight Short Duration in recent years which dragged on performance as bond yields increased. If inflation exceeds expectations and bond yields rise further, investors could increase exposure to Short Duration equities. Once inflation expectations ease, Long Duration could outperform. We list [stocks](#).

An appreciating USD is linked to rotation within Asia

The USD has rallied significantly over the last 12 months, and one risk for Asia is US inflation remains stubbornly high which results in higher US rates and a stronger USD. The MSCI APxJ Index has had a negative correlation with [DXY](#) over the last 35 years so USD appreciation is typically negative for Asia. An appreciating USD also tends to drive rotation within Asia. [We list stocks](#) with positive and negative sensitivity to DXY.

Chart 1: Global Wave and USA Short Term Rate (90-day)

USA Short Term Rate have a 64% correlation with the Global Wave



Source : BofA Global Quantitative Strategy, MSCI, IBES, Haver, Bloomberg, OECD, IMF, ICE Bond Indices, National Statistics Database
The sentiment indicator identified as the Global Wave above 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 prior written consent of BofA Global Rsch. This sentiment indicator was not created to act as a benchmark.

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14 March 2023

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Refer to important disclosures on page 18 to 20.

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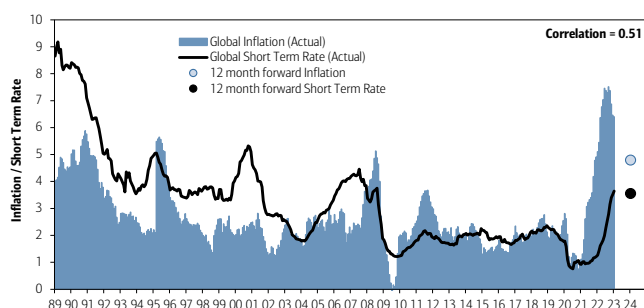
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Fed Tightening and Asia Pac Equity Performance

Chart 2: Global Inflation and Short Rates

The forecast is for inflation to fall in the next 12-months



Source : BofA Global Quantitative Strategy, Consensus Economics

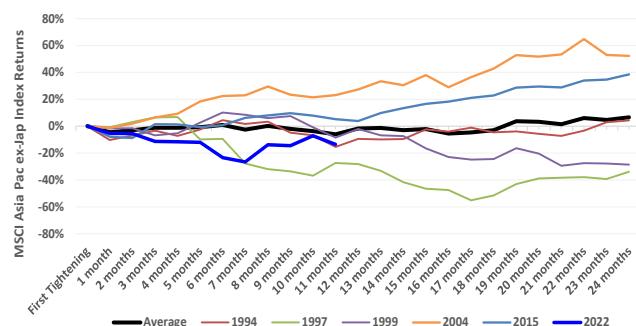
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Globally, trends in inflation have had a 51% correlation with short-rates in the last 34-years.

Based on current forecasts, inflation is poised to fall in the next 12-months but remain at high levels. Consequently, short-term rates may rise from current levels.

Chart 3: Asia equity performance after the Fed started tightening

Asia equity market falls 5.8% in 12 months, on average



Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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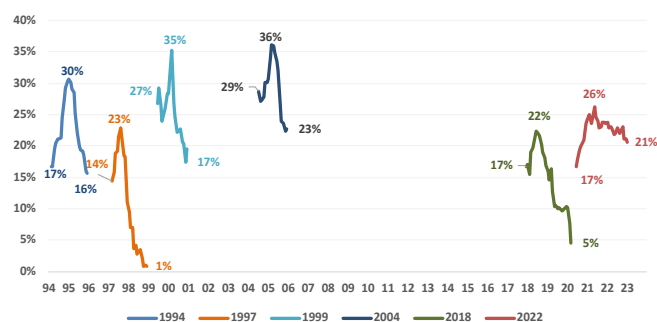
Over the last five US Fed tightening cycles, the MSCI Asia Pac ex-Japan (APxJ) Index fell a median -9.5% in the 12 months after US tightening began, on average.

Across the five tightening cycles, 12 month returns ranged from -28% in the Asian Crisis to +27% in 2004 which was in the early stages of the “super cycle”. Returns of the MSCI APxJ Index were negative in four of these five tightening cycles.

In the current tightening cycle, MSCI APxJ Index (blue line) has retreated -14% since May 2022.

Chart 4: Asia EPS growth forecasts after the Fed starts tightening

FY1 EPS growth forecasts first rise before collapsing as Fed hikes



Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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EPS growth forecasts (FY1) initially rise after the Fed starts tightening before subsequently collapsing.

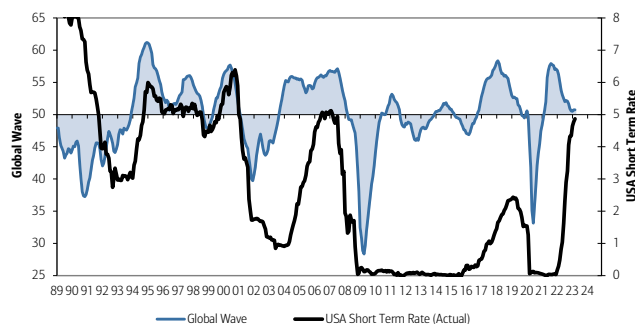
On average, EPS growth jumps 9% in eight months (it takes more than one tightening to halt an upturn), before collapsing 17%.

FY1 growth forecasts have moderated by 5% so far in this cycle.

US Short Term Rate and Asia Pac Equity Performance

Chart 5: Global Wave and USA Short Term Rate (90-day)

Central banks are tightening monetary policy to control inflation



Source : BofA Global Quantitative Strategy, MSCI, IBES, Haver, Bloomberg, OECD, IMF, ICE Bond Indices, National Statistics Database

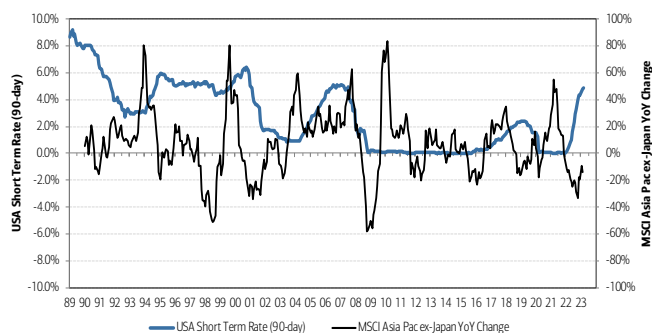
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The US short-term rate had a positive relationship with the global macro data (Global Wave) until GFC. This relationship changed after the GFC when short-term interest rates remained near zero for an extended period.

Currently the US short-term rate is rising as the Global Wave is falling. In the past, the Global Wave has only troughed once the Fed starts to loosen monetary policy.

Chart 6: USA Short Term Rate (90-day) and MSCI APxJ YoY Change

USA Short Term Rate has been climbing as Fed continues to hike



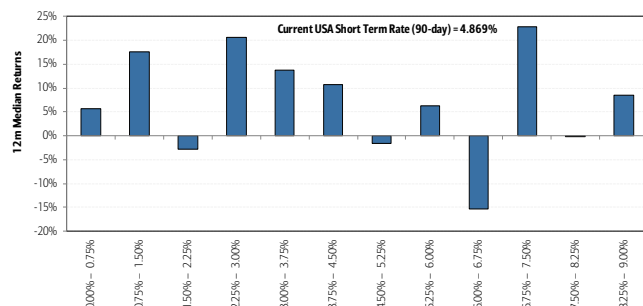
Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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The US Fed continues to hike short-term rates to contain inflation. In the past, Asia equities have retreated as the US short-term rates rises and vice versa.

Chart 7: Subsequent MSCI APxJ returns & USA Short Term Rate

MSCI APxJ falls by -1.6% in 12m when US Short Term Rate is in current range



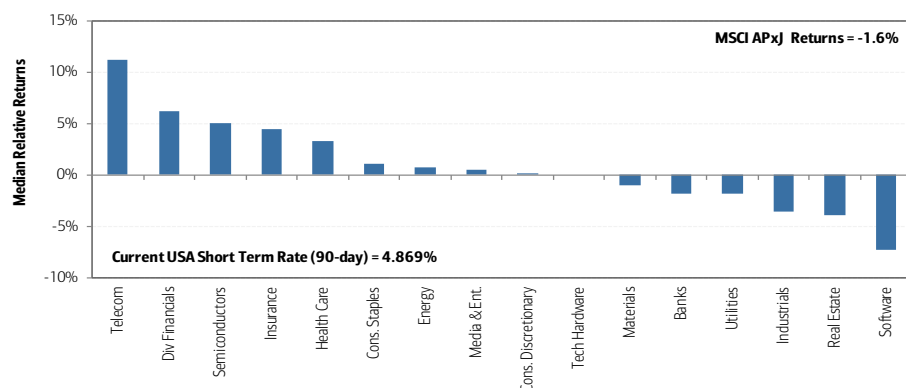
Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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This chart shows the average performance of MSCI APxJ equities at various ranges of US short-term rates. When the US short-term rate was at current level in the past, the MSCI APxJ index fell by -1.6% in subsequent 12-months, on average.

Chart 8: Subsequent Asia Pac sector returns for current USA Short Term Rate (90-day)

At current level, Telecom and Div Financials outperforms the most in subsequent 12m, on average



Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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Table 1: Subsequent Asia Pac sector relative returns (median 12m) for USA Short Term Rate (90-day) ranges

Median Asia Pac ex-Japan sector returns across various USShort Term Rate ranges

APxJ Sector	0.00% – 0.75%	0.75% – 1.50%	1.50% – 2.25%	2.25% – 3.00%	3.00% – 3.75%	3.75% – 4.50%	4.50% – 5.25%	5.25% – 6.00%	6.00% – 6.75%	6.75% – 7.50%	7.50% – 8.25%	8.25% – 9.00%
Telecom	-1.3%	-5.6%	-7.5%	-6.4%	4.9%	8.1%	11.2%	-3.0%	-15.2%	20.1%	25.1%	-2.6%
Div Financials	-1.5%	-2.1%	1.3%	-1.0%	-0.4%	3.9%	6.2%	5.2%	-1.0%	n/a	n/a	n/a
Semiconductors	7.7%	3.2%	4.9%	21.5%	15.5%	1.1%	5.0%	-5.5%	-10.7%	-23.9%	-45.6%	-9.0%
Insurance	0.8%	2.8%	-11.5%	2.3%	6.1%	-3.3%	4.5%	34.3%	20.1%	-4.4%	-33.4%	-63.0%
Health Care	3.4%	11.2%	1.9%	22.1%	9.5%	8.1%	3.3%	-12.9%	25.7%	-29.3%	-13.4%	4.3%
Cons. Staples	-0.5%	0.9%	4.3%	3.0%	4.9%	-5.9%	1.1%	5.4%	18.3%	-11.3%	-22.8%	-6.8%
Energy	-7.5%	14.2%	7.0%	-9.2%	-1.3%	-3.5%	0.8%	-2.7%	21.0%	-27.3%	-6.7%	1.3%
Media & Ent.	-8.3%	-8.5%	2.0%	-7.0%	-8.7%	4.5%	0.5%	5.5%	-8.3%	43.0%	-23.6%	-20.8%
Cons. Discretionary	-0.1%	-0.8%	4.3%	1.0%	-0.2%	4.1%	0.1%	-5.7%	-1.8%	-0.9%	-25.5%	-1.1%
Tech Hardware	0.3%	-13.5%	1.9%	8.6%	2.4%	8.2%	0.0%	-16.9%	-19.2%	-29.1%	-2.8%	23.2%
Materials	-2.0%	7.2%	1.6%	-5.9%	9.0%	-2.0%	-1.0%	-10.6%	7.5%	-7.8%	-25.8%	6.2%
Banks	0.4%	-4.7%	-1.5%	-5.7%	4.3%	6.1%	-1.8%	2.4%	8.3%	2.2%	-22.0%	-9.9%
Utilities	1.5%	-2.8%	3.5%	-5.6%	-2.2%	-2.8%	-1.9%	5.4%	11.5%	12.9%	37.1%	8.8%
Industrials	-2.4%	-2.1%	-3.6%	-9.5%	-6.5%	-8.6%	-3.6%	-9.8%	-5.6%	-6.7%	-28.8%	15.4%
Real Estate	-3.2%	-1.0%	-5.5%	-7.9%	-5.6%	-9.4%	-3.9%	17.3%	0.7%	n/a	n/a	n/a
Software	11.9%	19.7%	5.9%	2.3%	-2.1%	23.6%	-7.3%	-30.2%	-36.7%	n/a	n/a	n/a
Asia Pac ex-Japan	5.7%	17.7%	-2.8%	20.7%	13.7%	10.6%	-1.6%	6.2%	-15.3%	22.8%	-0.2%	8.5%

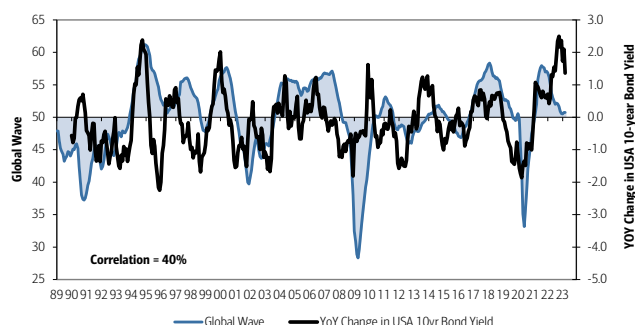
Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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US 10-year Bond Yield (Real) and Asia Pac Equity Performance

Chart 9: Global Wave and USA 10-year Bond Yield

Global Wave and the US 10-year Bond Yield have a 40% correlation



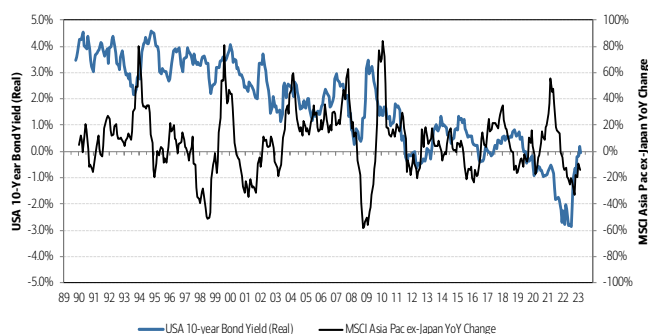
Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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The US 10-year bond yield has had a positive relationship with the Global Wave since 1989. This relationship has not been as strong recently as inflation and bond yields have risen even as the global cycle has slowed.

Chart 10: USA 10-year Bond Yield (Real) vs. MSCI APxJ YoY Change

USA 10-year Bond Yield in real terms is close to zero



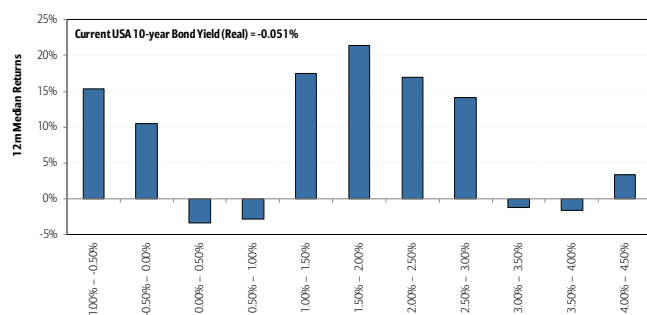
Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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The Real US 10-year bond yield touched -3.0% last year as inflation reached a 42-year high. Asia equities fell while real rates were negative.

Chart 11: Subsequent MSCI APxJ returns (median 12m) in various USA 10-year Bond Yield (Real) ranges

APxJ equities tend to fall when real US 10yr Bond Yield are near zero



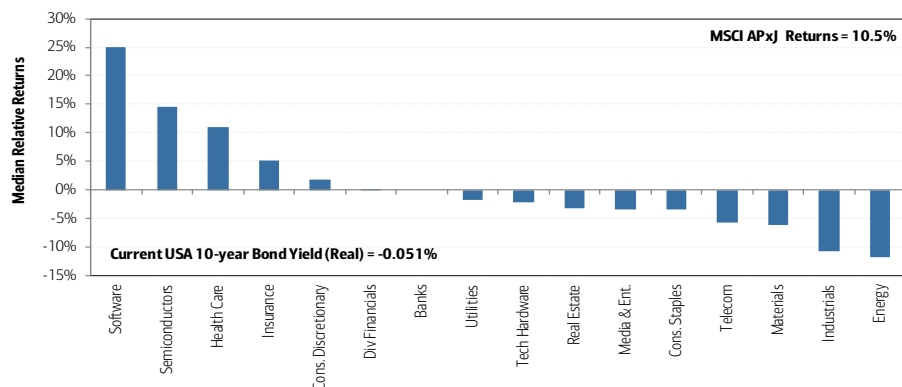
Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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In the past when the US 10-year bond yields was near current levels, the MSCI APxJ Index return was negative in the subsequent 12-months.

Chart 12: Subsequent Asia Pac sector relative returns at current USA 10yr Bond Yield (Real)

Software and Semiconductors perform the best in subsequent 12m at current level of rates, on avg



Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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Table 2: Subsequent Asia Pac sector relative returns (median 12m) for USA 10-year Bond Yield (Real) ranges

Median Asia Pac ex-Japan sector returns across various USA 10-year Bond Yield (Real) ranges

APJ Sector	-1.00% – -0.50%	-0.50% – 0.00%	0.00% – 0.50%	0.50% – 1.00%	1.00% – 1.50%	1.50% – 2.00%	2.00% – 2.50%	2.50% – 3.00%	3.00% – 3.50%	3.50% – 4.00%	4.00% – 4.50%
Software	18.4%	24.9%	5.4%	7.5%	7.2%	4.2%	4.0%	-14.3%	15.7%	6.3%	-18.0%
Semiconductors	28.3%	14.6%	9.2%	6.3%	1.0%	4.9%	3.4%	8.2%	2.8%	-6.8%	-5.2%
Health Care	-8.9%	10.9%	6.9%	3.5%	3.0%	1.6%	11.7%	8.1%	3.3%	2.4%	-11.0%
Insurance	-5.3%	5.1%	2.4%	3.2%	-1.0%	-9.8%	-1.7%	-4.3%	-2.0%	7.8%	-0.9%
Cons. Discretionary	-18.2%	1.9%	-5.0%	-1.9%	1.2%	2.8%	0.4%	-2.3%	4.0%	-1.0%	-1.8%
Div Financials	9.3%	0.2%	-4.6%	2.3%	-4.8%	1.9%	0.7%	1.0%	2.0%	3.1%	13.8%
Banks	12.1%	0.0%	-1.8%	-1.4%	-1.2%	-3.4%	-0.2%	0.9%	2.4%	-2.1%	-3.3%
Utilities	6.3%	-1.8%	1.3%	3.6%	-6.4%	-10.8%	-3.7%	-2.1%	3.4%	7.7%	3.3%
Tech Hardware	9.8%	-2.1%	0.0%	4.5%	0.3%	-0.9%	-7.2%	-11.6%	1.4%	-1.2%	-3.2%
Real Estate	-13.3%	-3.2%	-1.7%	3.3%	-3.4%	-5.3%	-5.8%	-7.6%	-1.2%	11.0%	19.1%
Media & Ent.	-15.4%	-3.3%	-11.3%	-5.6%	-6.5%	-11.9%	-8.6%	-9.7%	8.7%	18.2%	8.8%
Cons. Staples	-7.1%	-3.4%	4.3%	1.8%	5.2%	2.0%	2.9%	6.7%	3.9%	-3.4%	-9.1%
Telecom	-1.7%	-5.6%	-6.9%	1.1%	1.2%	-5.1%	-5.7%	-2.1%	-0.8%	10.7%	10.6%
Materials	16.3%	-6.1%	-4.3%	-6.5%	1.3%	4.2%	12.3%	11.0%	-4.0%	-7.4%	-18.8%
Industrials	8.9%	-10.8%	-8.3%	-2.6%	-2.1%	0.1%	-0.8%	-5.0%	-6.3%	-9.0%	-13.9%
Energy	1.0%	-11.7%	-2.2%	-7.7%	-1.3%	10.3%	11.1%	10.2%	-7.5%	-2.6%	-7.3%
Asia Pac ex-Japan	15.3%	10.5%	-3.3%	-2.9%	17.5%	21.4%	17.0%	14.2%	-1.2%	-1.6%	3.4%

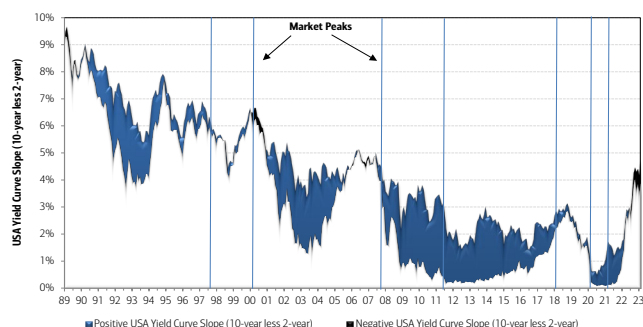
Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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USA Yield Curve Slope and Asia Pac Equity Performance

Chart 13: USA Yield Curve (10 vs. 2-year) and MSCI APxJ peaks

USA Yield Curve and MSCI Asia Pac ex-Japan peaks



Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

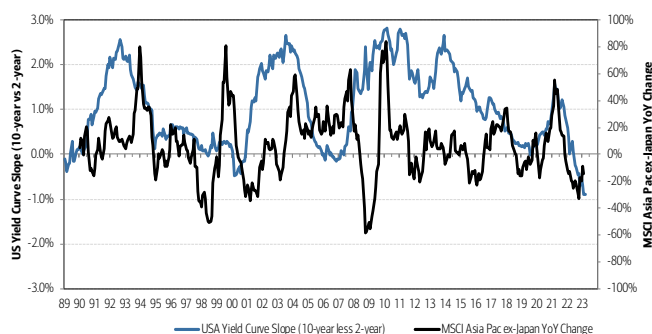
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The US Yield Curve Slope (10-yr minus 2-yr yield) is often used to gauge the strength of an economy. A steeper yield curve tends to benefit cyclical equity assets while a flatter to inverted curve benefits defensive equity assets.

As the US Fed hiked short rates aggressively, the yield curve inverted.

Chart 14: USA Yield Curve vs. MSCI Asia Pac ex-Japan YoY Change

USA Yield Curve (10-year less 2-year) has inverted



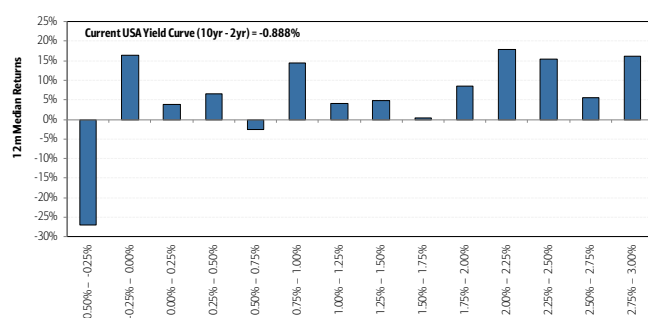
Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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Asian equities have had a positive relationship with the US yield curve slope. An inverted US yield curve slope is a negative signal for Asian equities which tend to be cyclical compared to other regions of the world. The current yield curve slope is at record lows, based on data since 1989.

Chart 15: Subsequent MSCI APxJ returns and USA Yield Curve slope

USA Yield Curve slope has inverted and is at historical low level



Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

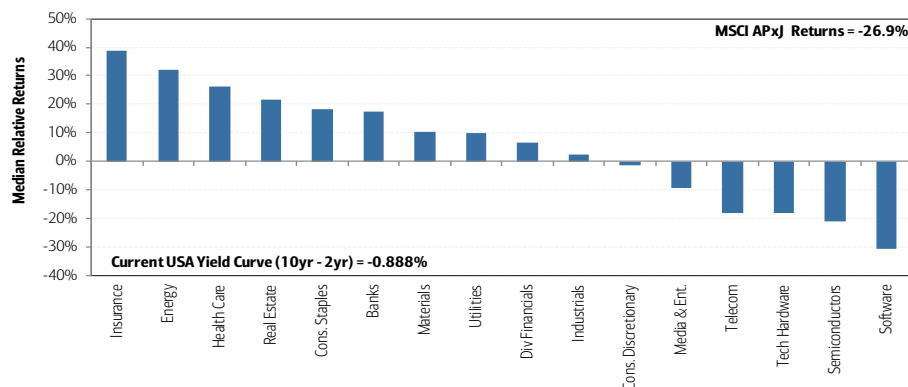
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This chart shows various ranges of the US yield curve slope and the median subsequent 12-month return of the MSCI APxJ Index.

The US Yield Curve has inverted to levels unseen in the past 35 years. Previously, APxJ equities have retreated when the US yield curve inverted.

Chart 16: Subsequent APxJ sector relative returns (median 12m) for current Yield Curve slope

Insurance and Energy sectors outperform the most in 12m, when yield curve inverts, on avg



Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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Table 3: Subsequent Asia Pac sector relative returns (median 12m) for various USA Yield Curve slope (10-year vs. 2-year) ranges

Median Sector Returns across various USA Yield Curve Slope ranges

APxJ 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%
Insurance	38.8%	9.3%	-6.1%	10.6%	-1.7%	3.7%	1.3%	1.4%	4.2%	-2.9%	4.9%	0.4%	-5.0%	-19.3%
Energy	32.1%	8.1%	-10.1%	-2.2%	6.9%	-0.3%	3.7%	-3.8%	-7.7%	-2.6%	-9.0%	-4.5%	-8.2%	-6.7%
Health Care	26.2%	2.7%	7.2%	-3.1%	8.8%	-10.3%	-6.1%	-1.9%	12.4%	4.8%	13.3%	11.6%	7.3%	0.9%
Real Estate	21.6%	-2.6%	-1.7%	-6.4%	-4.0%	-4.0%	-3.9%	-1.0%	0.3%	-5.1%	-4.2%	-3.6%	-2.2%	-5.9%
Cons. Staples	18.2%	-1.7%	-3.6%	3.1%	6.5%	-2.5%	-2.1%	0.6%	4.5%	1.5%	-6.6%	-0.1%	7.9%	0.2%
Banks	17.3%	-4.1%	-4.5%	-2.0%	2.4%	0.0%	2.9%	1.7%	0.7%	1.4%	-2.6%	-3.0%	0.7%	-10.2%
Materials	10.3%	11.9%	-4.1%	-2.2%	1.0%	3.7%	-0.6%	-5.2%	-0.5%	6.4%	-5.5%	-0.5%	-13.3%	-0.6%
Utilities	10.1%	-2.8%	-0.7%	-6.1%	0.1%	0.2%	-5.1%	5.2%	2.5%	3.2%	0.7%	-2.2%	4.9%	-19.4%
Div Financials	6.5%	11.6%	6.2%	1.7%	-0.3%	-6.5%	-2.3%	2.2%	-0.4%	-1.7%	-1.0%	1.1%	-8.7%	-5.3%
Industrials	2.4%	4.6%	-8.0%	-7.9%	-2.4%	-7.8%	-8.6%	-3.2%	0.2%	-6.4%	-7.4%	-2.1%	-8.9%	1.8%
Cons. Discretionary	-1.3%	-10.3%	5.3%	0.5%	-5.1%	-2.2%	-2.1%	1.0%	-0.2%	1.9%	0.0%	2.1%	5.0%	6.0%
Media & Ent.	-9.1%	-22.4%	1.6%	6.6%	-6.3%	-15.4%	-18.7%	-7.8%	-4.3%	-4.0%	-6.5%	-6.0%	-1.6%	-18.4%
Telecom	-17.8%	16.9%	3.9%	-2.6%	-4.1%	-4.6%	-5.1%	-1.9%	0.5%	-6.1%	4.7%	-1.4%	11.2%	-12.6%
Tech Hardware	-18.2%	-18.6%	3.7%	-4.5%	8.0%	-8.3%	-0.4%	-0.1%	-0.9%	-0.6%	0.8%	-0.1%	0.8%	-4.2%
Semiconductors	-21.2%	-24.6%	2.4%	4.6%	28.0%	9.1%	9.3%	8.0%	11.1%	4.8%	1.8%	-4.4%	9.4%	2.5%
Software	-30.7%	-26.1%	6.9%	15.5%	-1.2%	11.2%	2.2%	11.7%	13.9%	7.6%	12.6%	17.4%	1.8%	-0.4%
Asia Pac ex-Japan	-26.9%	16.5%	3.9%	6.5%	-2.5%	14.4%	4.2%	4.9%	0.4%	8.5%	17.8%	15.4%	5.7%	16.2%

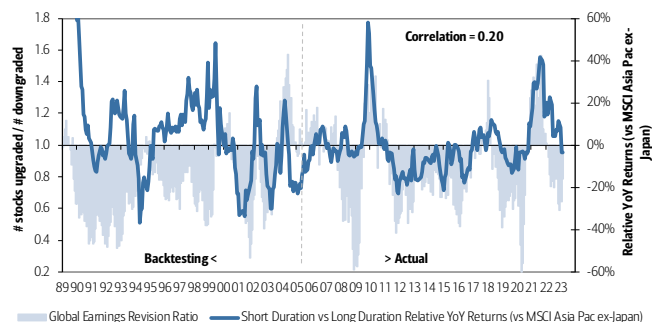
Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

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Equity Duration and Asia Pac Equity Performance

Chart 17: Short vs Long Duration vs Global earnings expectations

Short Duration have underperformed by -3.3% in the last 12m



Source : BofA Asia Pac Quantitative Strategy, MSCI, Exshare, Bloomberg

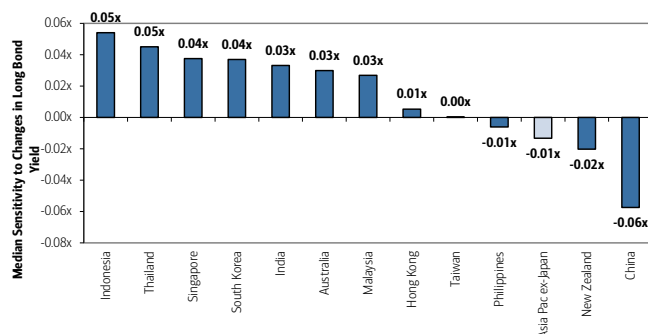
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The performance of Short Duration vs Long Duration stocks has had a positive relationship with global earnings expectations.

As long-bond yield rises, stocks which are positive sensitive to changes in long-bond yield tend to outperform stocks which are negatively sensitive. This analysis suggests investors rotate towards Short Duration stocks.

Chart 18: APxJ Countries Sensitivity to USA 10yr Bond Yield

China is most negatively sensitive to US Long Bond Yield



Source : BofA Global Quantitative Strategy, MSCI, IBES

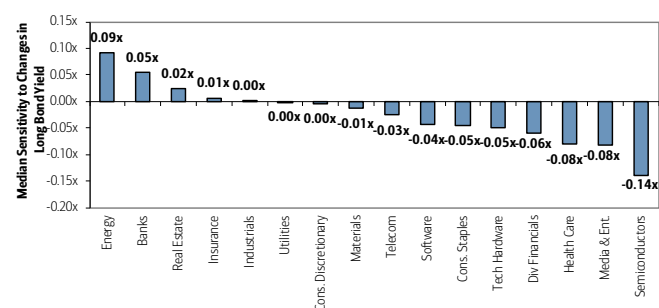
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Indonesia, Thailand, and Singapore stocks tend to benefit as the US 10-year bond rises.

China tends to underperform the most as the US 10-year bond yield rises.

Chart 19: APxJ Sectors Sensitivity to USA 10yr Bond Yield

Energy and Banks are positive sensitive to the US Long Bond Yield



Source : BofA Global Quantitative Strategy, MSCI, IBES

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Energy, Banks, Real Estate, and Insurance are positively sensitive to the US 10-year bond yield, while Semis, Media & Entertainment, and Health Care are most negatively sensitive.

The Asia Pac ex-Japan Short Duration screen includes twenty-five stocks with the highest sensitivity to changes in the US 10-year bond yields that meet the region and sector distribution of the MSCI Asia Pac ex-Japan Index (subject to rounding).

Table 4: Asia Pac ex-Japan Short Duration

Benchmark-aware twenty five stocks screen with the highest sensitivity to changes in the US 10-year bond yields

Company Name	BBG Code	Country	Sector	MCAP (Total \$US m)
Westpac	WBC AU	Australia	Banks	53,193
Woodside	WDS AU	Australia	Energy	45,980
Ramsay	RHC AU	Australia	Health Care	10,426
Pilbara Minerals	PLS AU	Australia	Materials	8,393
China Citic Bank-H	998 HK	China	Banks	6,882
Koolearn Tech	1797 HK	China	Cons. Discretionary	5,699
Tingyi	322 HK	China	Cons. Staples	9,099
Sinopharm Med-H	1099 HK	China	Health Care	3,590
Air China-H	753 HK	China	Industrials	4,203
China Literature	772 HK	China	Media & Ent.	4,381
JOYY-ADR	YY US	China	Media & Ent.	1,727
Chow Tai Fook	1929 HK	Hong Kong	Cons. Discretionary	19,364
AIA	1299 HK	Hong Kong	Insurance	126,578
Swire Pacific	19 HK	Hong Kong	Real Estate	7,380
State Bank of India	SBIN IN	India	Banks	56,440
Coal India	COAL IN	India	Energy	16,058
Tata Elxsi	TELX IN	India	Software	4,617
DBS	DBS SP	Singapore	Banks	65,683
Hyundai Mipo	010620 KS	South Korea	Industrials	2,119
Posco Chemical	003670 KS	South Korea	Materials	12,937
L&F	066970 KS	South Korea	Tech Hardware	7,114
CTBC Financial	2891 TT	Taiwan	Banks	14,557
ASE Tech	3711 TT	Taiwan	Semiconductors	15,168
Nanya Tech	2408 TT	Taiwan	Semiconductors	5,937
Innolux	3481 TT	Taiwan	Tech Hardware	4,611

Source : BofA Asia Pac Quantitative Strategy, MSCI

This screen is not a recommended list either individually or as a group of stocks. Investors should consider the fundamentals of the companies and their own individual circumstances/objectives before making any investment decisions.

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The Asia Pac ex-Japan Long Duration screen includes twenty five stocks with the lowest sensitivity to changes in the US 10-year bond yields that meet the region and sector distribution of the MSCI Asia Pac ex-Japan Index (subject to rounding).

Table 5: Asia Pac ex-Japan Long Duration

Benchmark-aware twenty five stocks screen with the lowest sensitivity to changes in the US 10-year bond yields

Company Name	BBG Code	Country	Sector	MCAP (Total \$US m)
CBA	CBA AU	Australia	Banks	115,535
Ampol	ALD AU	Australia	Energy	5,297
CSL	CSL AU	Australia	Health Care	96,250
Fortescue Metals	FMG AU	Australia	Materials	44,433
China Merchants Bank-H	3968 HK	China	Banks	24,857
China Tourism Duty Free-H	1880 HK	China	Cons. Discretionary	2,937
Xpeng	9868 HK	China	Cons. Discretionary	5,741
Microport	853 HK	China	Health Care	5,154
Weichai Power-H	2338 HK	China	Industrials	2,881
Bilibili-Class Z	9626 HK	China	Media & Ent.	6,056
Kuaishou Tech	1024 HK	China	Media & Ent.	23,595
Yihai	1579 HK	Hong Kong	Cons. Staples	3,041
AIA	1299 HK	Hong Kong	Insurance	126,578
Hang Lung Prop	101 HK	Hong Kong	Real Estate	8,678
Kotak Mahindra	KMB IN	India	Banks	41,536
Hindustan Petroleum	HPCL IN	India	Energy	3,694
Infosys	INFO IN	India	Software	75,715
OCBC	OCBC SP	Singapore	Banks	42,494
Ecopro	247540 KS	South Korea	Industrials	12,291
SK IE Technology	361610 KS	South Korea	Materials	3,524
Iljin Materials	020150 KS	South Korea	Tech Hardware	2,216
Taishin Financial	2887 TT	Taiwan	Banks	6,465
Silergy Corp	6415 TT	Taiwan	Semiconductors	7,260
Win Semi	3105 TT	Taiwan	Semiconductors	2,366
Accton Tech	2345 TT	Taiwan	Tech Hardware	5,202

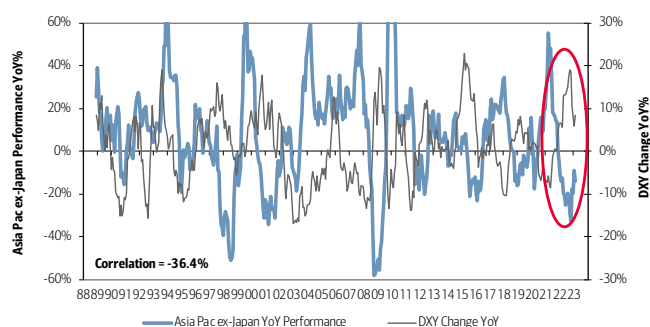
Source : BofA Asia Pac Quantitative Strategy, MSCI

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DXY/USD Sensitivity and Asia Pac Equity Performance

Chart 20: MSCI Asia Pac ex-Japan Equities YoY Change and DXY
Asia Pac ex-Japan equities tend to underperform as USD strengthens



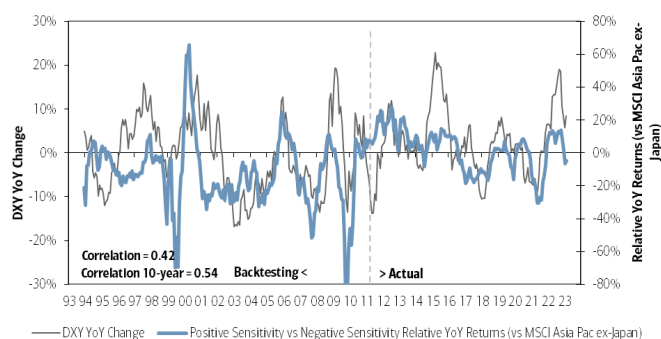
Source : BofA Asia Pac Quantitative Strategy, MSCI, IBES

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The MSCI Asia Pac ex-Japan Index tends to move in the opposite direction to the DXY.

In Asia, equity markets tend to fall -1.5% for every 1.0% of DXY appreciation.

Chart 21: Negative vs Positive DXY Sensitivity vs DXY YoY Change
Negatively sensitive stocks underperform when the USD strengthens



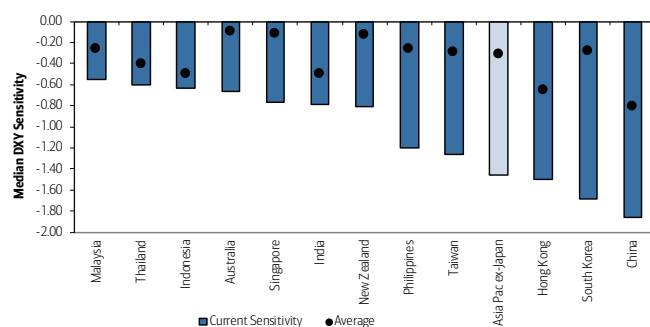
Source : BofA Asia Pac Quantitative Strategy, MSCI, IBES

Back-tested results are from Jan-93 to Oct-10. Actual performance is from Nov-10. Back-tested performance depicts the theoretical (not actual) performance of a particular strategy over the time period indicated. No representation is being made that any actual portfolio is likely to have achieved returns similar to those shown herein.

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The performance of “Positive DXY Sensitivity” stocks versus “Negative DXY Sensitivity” stocks has had a 54% correlation with trends in the DXY in the last 10 years, indicating there is potential for investors to use stocks to position for expected moves in DXY.

Chart 22: Median Sensitivity of APxJ Countries to changes in DXY
China and Korea are the most negatively sensitive to DXY



Source : BofA Asia Pac Quantitative Strategy, MSCI, IBES

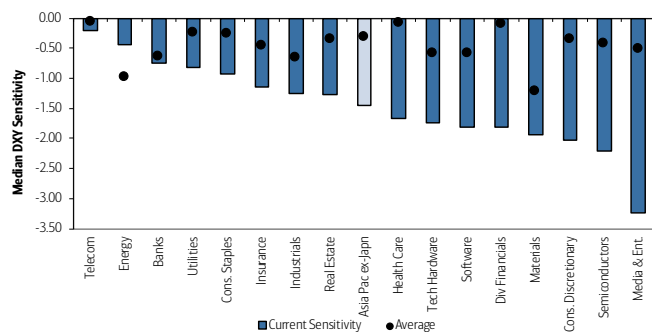
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Asia equities generally fall when the USD strengthens, hence all the countries in Asia have negative sensitivity to the changes in the USD.

China and South Korea are most negatively sensitive to the USD.

Chart 23: Median of APxJ sectors to the changes in DXY

Cyclical sectors are the most negatively sensitive to DXY



Source : BofA Asia Pac Quantitative Strategy, MSCI, IBES

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Energy, Banks, and defensive sectors (Telecom, Utilities, Staples) tend to fall less when the USD strengthens. Cyclical sectors including Media & Entertainment, Semis, and Consumer Discretionary are most negatively sensitive to the changes in the USD.

Table 6: Asia Pac ex-Japan Stocks with Positive Sensitivity to DXY

40-stocks APxJ screen with positive USD sensitivity (DXY)

Bloomberg	Company Name	Country	Sector
2255 HK	Haichang Ocean Park	Hong Kong	Cons. Discretionary
ADANI IN	Adani Power	India	Utilities
AMRT IJ	Sumber Alfaria	Indonesia	Cons. Staples
900948 CH	Inner Mongolia Yitai	China	Energy
1171 HK	Yanzhou Energy-H	China	Energy
028300 KS	HLB	South Korea	Health Care
6669 TT	Wiiwynn	Taiwan	Tech Hardware
ADRO IJ	Adaro Energy Indonesia	Indonesia	Energy
JCNC SP	Jardine C&C	Singapore	Industrials
TLKM IJ	Telkom Indonesia Persero	Indonesia	Telecom
DMART IN	Avenue Supermarts	India	Cons. Staples
BH TB	Bumrungrad Hospital	Thailand	Health Care
PIDI IN	Pidilite Indus	India	Materials
ADANIT IN	Adani Transmission	India	Utilities
COAL IN	Coal India	India	Energy
ITC IN	ITC	India	Cons. Staples
PAG IN	Page Industries	India	Cons. Discretionary
HUVR IN	Hindustan Unilever	India	Cons. Staples
1898 HK	China Coal-H	China	Energy
BDMS TB	Bangkok Dusit	Thailand	Health Care
NEST IN	Nestle India	India	Cons. Staples
8069 TT	E Ink	Taiwan	Tech Hardware
IAG AU	IAG	Australia	Insurance
IH IN	Indian Hotels	India	Cons. Discretionary
CLGT IN	Colgate (India)	India	Cons. Staples
2912 TT	PCSC	Taiwan	Cons. Staples
ACEM IN	Ambuja Cements	India	Materials
2834 TT	Taiwan Business Bank	Taiwan	Banks
2328 HK	PICC-H	China	Insurance
NTPC IN	NTPC	India	Utilities
KTB TB	Krung Thai	Thailand	Banks
EGCO TB	Electricity Generating	Thailand	Utilities
UNVR IJ	Unilever Indonesia	Indonesia	Cons. Staples
010130 KS	Korea Zinc	South Korea	Materials
3320 HK	China Resources Pharma	Hong Kong	Health Care
VBL IN	Varun Beverages	India	Cons. Staples
047810 KS	Korea Aerospace	South Korea	Industrials
TRENT IN	Trent	India	Cons. Discretionary
2474 TT	Catcher Tech	Taiwan	Tech Hardware
AZJ AU	Aurizon	Australia	Industrials

Source : BofA Asia Pac Quantitative Strategy, MSCI, IBES

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Table 7: Asia Pac ex-Japan Stocks with Negative Sensitivity to DXY

40-stocks APxJ screen with negative USD sensitivity (DXY)

Bloomberg	Company Name	Country	Sector
1268 HK	China Meidong Auto	China	Cons. Discretionary
2333 HK	Great Wall Motor-H	China	Cons. Discretionary
2313 HK	Shenzhou Intl	China	Cons. Discretionary
VIPS US	Vipshop-ADR	China	Cons. Discretionary
853 HK	Microport	China	Health Care
2269 HK	WuXi Biologics	China	Health Care
1919 HK	COSCO Shipping-H	China	Industrials
6060 HK	ZhongAn Insurance-H	China	Insurance
2600 HK	CHALCO-H	China	Materials
3993 HK	CMOC-H	China	Materials
2899 HK	Zijin Mining-H	China	Materials
772 HK	China Literature	China	Media & Ent.
136 HK	China Ruyi	China	Media & Ent.
2007 HK	Country Garden	China	Real Estate
960 HK	Longfor	China	Real Estate
DQ US	Daqo New Energy-ADR	China	Semiconductors
6865 HK	Flat Glass-H	China	Semiconductors
3800 HK	GCL Tech	China	Semiconductors
2018 HK	AAC Tech	China	Tech Hardware
285 HK	BYD Electronic	China	Tech Hardware
1888 HK	Kingboard Laminates	China	Tech Hardware
1585 HK	Yadea Group	Hong Kong	Cons. Discretionary
1579 HK	Yihai	Hong Kong	Cons. Staples
868 HK	Xinyi Glass	Hong Kong	Industrials
1347 HK	Hua Hong	Hong Kong	Semiconductors
968 HK	Xinyi Solar	Hong Kong	Semiconductors
ARTO IJ	Bank Jago	Indonesia	Banks
ANTM IJ	Aneka Tambang	Indonesia	Materials
TOPG MK	Top Glove	Malaysia	Health Care
ACEN PM	ACEN Corp	Philippines	Utilities
SE US	Sea-ADR	Singapore	Media & Ent.
034020 KS	Doosan Enerbility	South Korea	Industrials
2603 TT	Evergreen Marine	Taiwan	Industrials
2615 TT	Wan Hai Lines	Taiwan	Industrials
2609 TT	Yang Ming	Taiwan	Industrials
3034 TT	Novatek Micro	Taiwan	Semiconductors
4966 TT	Parade Tech	Taiwan	Semiconductors
6415 TT	Silergy Corp	Taiwan	Semiconductors
8046 TT	Nan Ya Printed	Taiwan	Tech Hardware
DELTA TB	Delta Electronics (Thai)	Thailand	Tech Hardware

Source : BofA Asia Pac Quantitative Strategy, MSCI, IBES

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BofA GLOBAL RESEARCH

Global Quant Publications

Monthly reports schedule

Day 1: Contenders & Defenders

A popular visual stock selection model. For each stock, this report graphically shows how consensus earnings expectations have changed over the long term versus the market, and whether recent earnings revisions appear to have been reflected in relative share price performance. Popular ways of using this analysis include 1) reviewing the Contenders (buys) and Defenders (Sells) lists, 2) perusing individual stock charts, 3) monitoring region, country and sector themes using the “quadrant charts”, and 4) reviewing stock rankings. Regional versions are published monthly in these linked reports for [Global Contenders & Defenders](#) and Asia Pac ex-Japan Contenders & Defenders.

Day 1: [Global Performance Monitor](#)

The above linked monthly report analysing the performance of global regions, countries, sectors and identifying the major stock contributors to global equity market performance.

Day 2/3: Quantessential Style

Style rotation. Different investment styles outperform at various stages of the cycle. This investment style analysis relates performance of seven Quantessential Styles (Value, Growth, Quality, Risk, Momentum, Dividend and Size) to trends in global macro data. Popular uses include 1) when to buy “Deep Value”, “Growthiest of Growth”, and other styles, 2) identifying stocks with various style characteristics, 3) monitoring style performance, and 4) explaining out/under-performance due to style tilts. Regional versions are published in these linked monthly reports for [Global Quantessential Style](#) and [Asia Pac ex-Japan Quantessential Style](#).

Week 1: [Global Fund Performance Monitor](#)

The above linked monthly report analysing the relative returns of large long-only equity funds in order to help fund managers understand how returns have been affected by fund characteristics. Funds are grouped by Region, Investment Style, Active/Passive, Active Share Ratio, Funds Under Management, Stock Size, Number of Stocks, and Portfolio Turnover.

Week 2: [Global Wave](#)

The Global Wave (report link above) quantifies turning points and multi-year trends in global economic activity. The direction of the global cycle influences equity market performance, regional allocation, country allocation, style allocation, and stock selection. The Bunkers are stocks for a downturn and the Boosters are stocks for an upturn.

Week 2: [NewsAlpha](#)

The above linked monthly report: 1) quantifies alpha opportunities using news for both short-term and long-term investors, 2) Leverages big data – a) to identify the most significant news events, b) to highlight which stocks are driven by news and c) to create an indicator- The Global News Pulse - to monitor trends in news sentiment globally.

Week 2: Positioning in Stocks

Quantifies how large investors are positioned in terms of stocks, regions, countries and sectors. Popular uses include 1) identifying extreme positioning for contrarian trade ideas, and 2) identifying developing trends in investor positioning. Regional versions are published in these linked monthly reports for [Global Positioning in Stocks](#) and [Pacific Positioning](#).

Week 3: Global ProductPaedia

In the above linked monthly report, we identify investment trends based on products as an alternative approach to analysing equity markets by sector, industry, country, region,

or style. We have categorized 50,000 stocks globally into 350 Product Groups based on product revenue exposure. We have also mapped 510,000 relationships between companies, customers, and suppliers, which would help monitor significant changes in supply chain dynamics.

Week 3: Quant Panorama

Summary report. In this monthly report, we present all our views and recent research on regional allocation, country and sector allocation, style allocation, and stock selection.

One-stop shopping. Regional versions are published in these linked monthly reports for [Global Quant Panorama](#) and [Asia Pac ex-Japan Quant Panorama](#).

Week 4: Earnings Revision Ratio

Shows trends in earnings expectations at the regional, country and sector level.

Regional versions are published in these linked monthly reports for [Global Earnings Revision Ratio](#) and [Asia Pac ex-Japan Earnings Revision Ratio](#).

Weekly: [High Frequency Monitor](#)

In this above linked weekly report, we monitor high frequency data to help equity investors track short-term changes in market-moving data in order to swiftly identify hot topics and turning points.

Quarterly: ProxiMate

In this quarterly report, we use Genetic Algorithm to solve a complex problem in finance, namely, to approximate the performance of one group of stocks using a different group of stocks. We have used Genetic Algorithm to calculate stock screens which approximate the performance of regions, sectors, styles and countries.

Occasional: [Focus Point](#)

The report above contains brief comments on topical issues and new research.

Disclosures

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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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