

# Investor Sentiment: Risk-Love

## At a critical juncture

### The culprits

Global Equity Risk-Love, our contrarian sentiment indicator for equities, entered the seasonally weak August-September period in euphoria, even in the face of tighter liquidity conditions. A correction ensued as investors grappled with the ramifications of a higher-for-longer interest rate regime. The pullback, though, is not atypical by historical standards – even in the 15 episodes since 1950 that saw impressive returns from the S&P 500 till July (>15%), it experienced an average drawdown of 8% before rebounding to end the year at a higher level. See [BofA GPS: The weight of the evidence](#).

### Risk-Love calms down to neutral

The latest update marks a further slide down the neutral zone to the 40<sup>th</sup> percentile of history from the 50<sup>th</sup> percentile last month (and 81<sup>st</sup> percentile in July), primarily on account of soft investor survey opinions, pessimistic put-call ratios and below-par market technicals. Simply put, much of the erstwhile froth has now been ingested, although not even close to generating a tactically bullish capitulation signal.

Asia ex-Japan and Emerging Markets Risk-Love also took a step down within the lower half of the neutral zone, pressed down by the strength of the US dollar (up 7% from the July-lows). Korea and Brazil receded from borderline euphoria, while Singapore and Thailand are stationed in panic. China/Hong Kong Risk-Love stay near panic as hitherto policy easing has failed to rejuvenate investor confidence.

### Seasonality swings from headwinds to tailwinds

August-September has never been investor friendly, with the last 10 days of September being the worst 10-day period of the year (average S&P 500 return of -1.1% at a hit rate of 40% – see [Market Analysis Comment](#)). However, the headwinds turn into tailwinds as we step into the final quarter, with an average rise of 4.5% at a hit rate of 80% in the global equities since 1987.

### Is restrictive rates the new regime?

If market technicals still fail to pick up in the fall with two of the three concerns out of the way, it may suggest that we have already seen the peak in this cycle. Why?

First, the return of inflation has broken the two-decade old relationship between equities and bonds. Since 1998, equity markets rose with bond yields on perceptions of stronger growth momentum in a disinflationary setup. That correlation has reversed in the past year, presaging tougher times ahead for equities if bond yields keep climbing higher.

Second, financial markets, in general, are averse to uncertainty. Accordingly, the decline in bond volatility allowed stocks to prosper till July, as investors took comfort in the resilience of the economy to absorb a higher cost of capital. But a resurgence month-to-date puts that narrative into question. We suggest keeping a close tab on this metric.

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

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**Refer to important disclosures on page 18 to 20.**

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The indicator identified as Risk-Love is intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. This indicator was not created to act as a benchmark.

# At a critical juncture

## Exhibit 1: S&P500 returns through the year after a strong start

The August-September correction is not atypical by historical standards

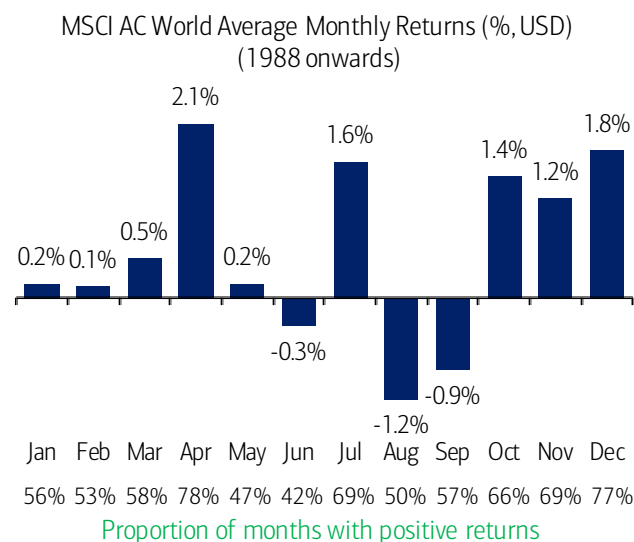
#	Year	31 Dec – 31 Jul	31 Jul – 31 Dec	Maximum Drawdown (between 31 Jul and 31 Dec)
1	1954	24%	17%	-4%
2	1955	21%	5%	-11%
3	1958	18%	17%	-2%
4	1967	18%	2%	-7%
5	1975	29%	2%	-8%
6	1983	16%	1%	-6%
7	1987	32%	-22%	-34%
8	1989	25%	2%	-8%
9	1991	17%	8%	-6%
10	1995	22%	10%	-3%
11	1997	29%	2%	-11%
12	1998	15%	10%	-15%
13	2013	18%	10%	-5%
14	2019	19%	8%	-5%
15	2021	17%	8%	-5%
16	2023	20%		-7%
Average		21%	5%	-8%
Median		19%	8%	-6%
% of time up		100%	93%	

Source: BofA Predictive Analytics, Bloomberg

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## Exhibit 2: Seasonality Trends in MSCI AC World Index (1988 onwards)

Stepping into the final quarter, seasonality headwinds turn into tailwinds

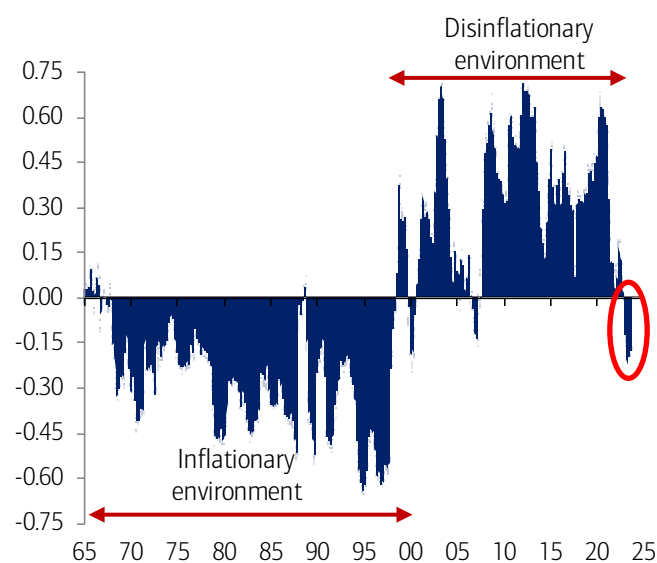


Source: BofA Predictive Analytics, MSCI, FactSet

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## Exhibit 3: Rolling 1yr correlation between S&P 500 and US bond yields

Back to inflationary settings: tough times ahead for equities if bond yields keep climbing higher

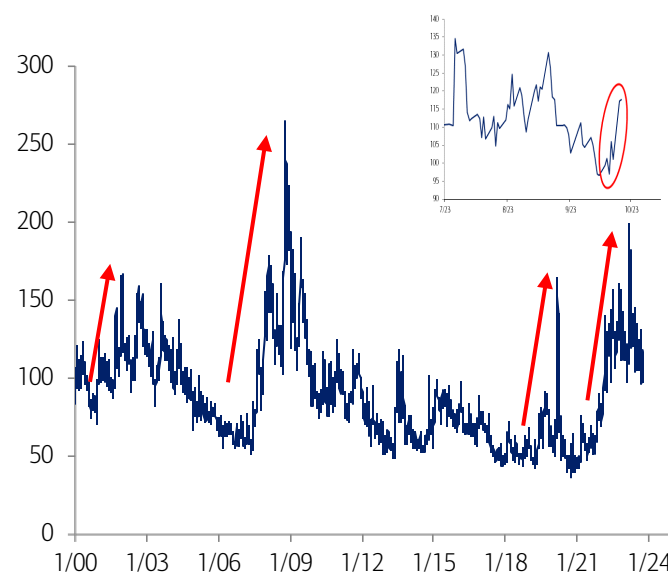


Source: BofA Predictive Analytics, Bloomberg. Notes: Based on daily returns

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## Exhibit 4: Bond volatility: ICE BofA MOVE Index

Keep a close tab on bond volatility to see if it is rising



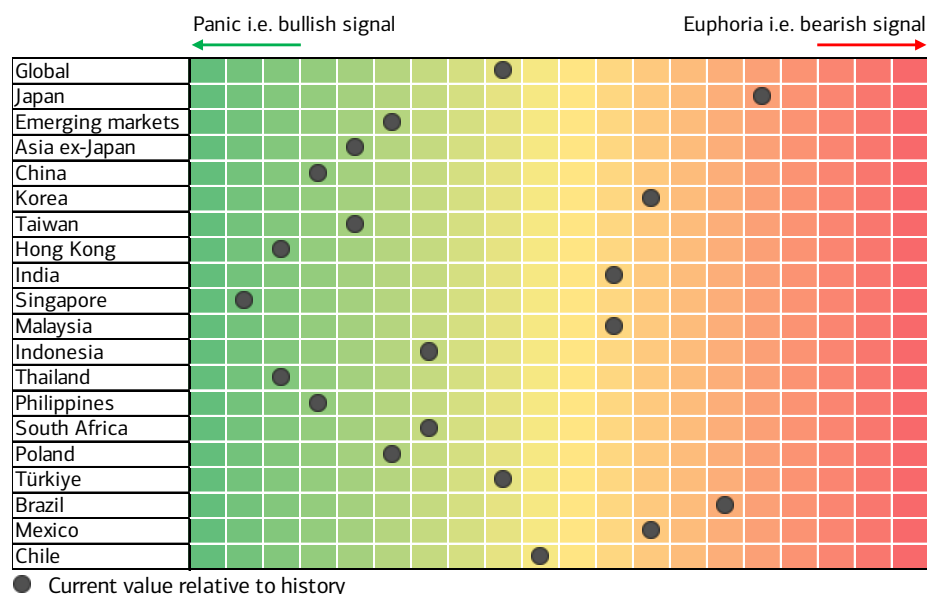
Source: BofA Predictive Analytics, ICE Data Indices, LLC, Bloomberg

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# Risk-Love Summary

## Exhibit 5: Risk-Love Indicator (Equity sentiment) Summary

Where do Risk-Love indicators for individual countries/regions stand today vis-à-vis history?



Source: BofA Predictive Analytics

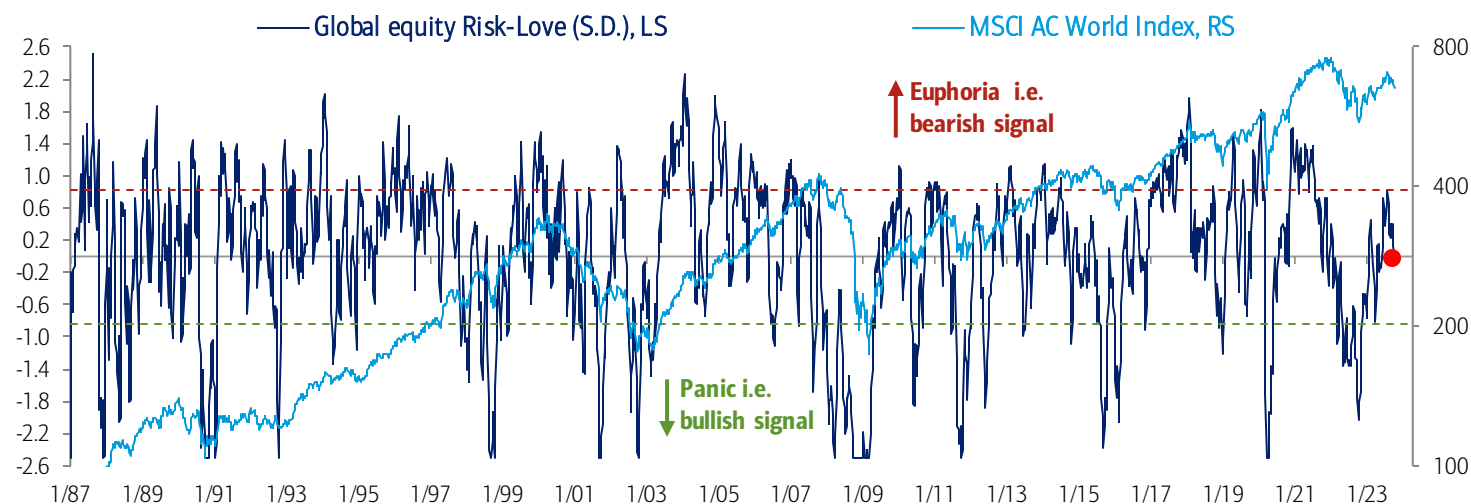
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## Global Equity Risk-Love

Exhibit 6 shows our global equity Risk-Love indicator and Exhibits 7-10 show its components. This indicator tracks positioning, put-call ratios, investor surveys, price technicals and volatility, spreads, and correlations measures (see glossary for further details).

### Exhibit 6: Global Equity Risk-Love

Global Risk-Love is at the 40<sup>th</sup> percentile of its history since 1987



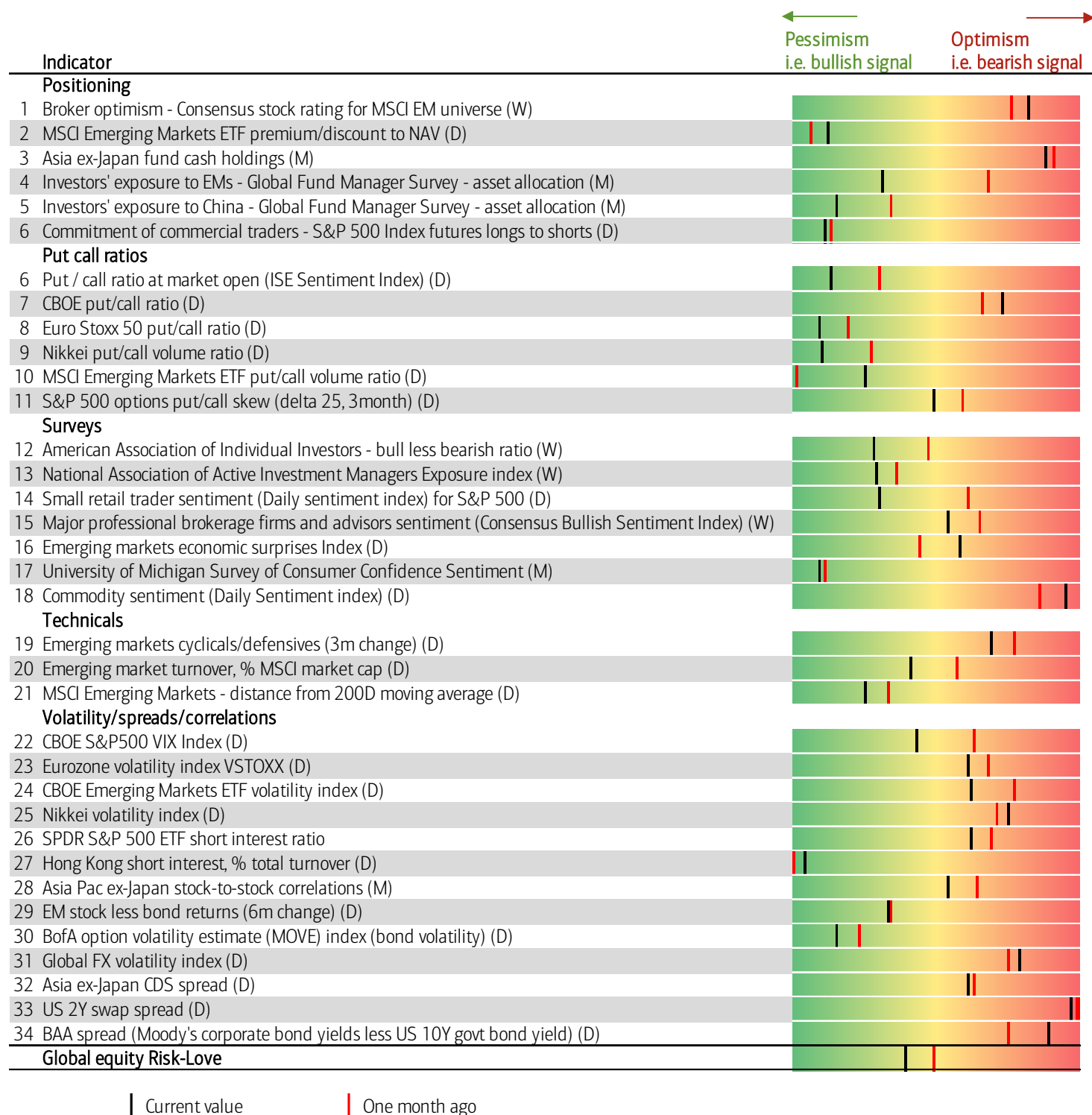
Source: BofA Predictive Analytics, Bloomberg

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**Exhibit 7: Global Equity Risk-Love indicator components heatmap**

Where do input factors for Global Equity Risk-Love stand today vs. one month ago?

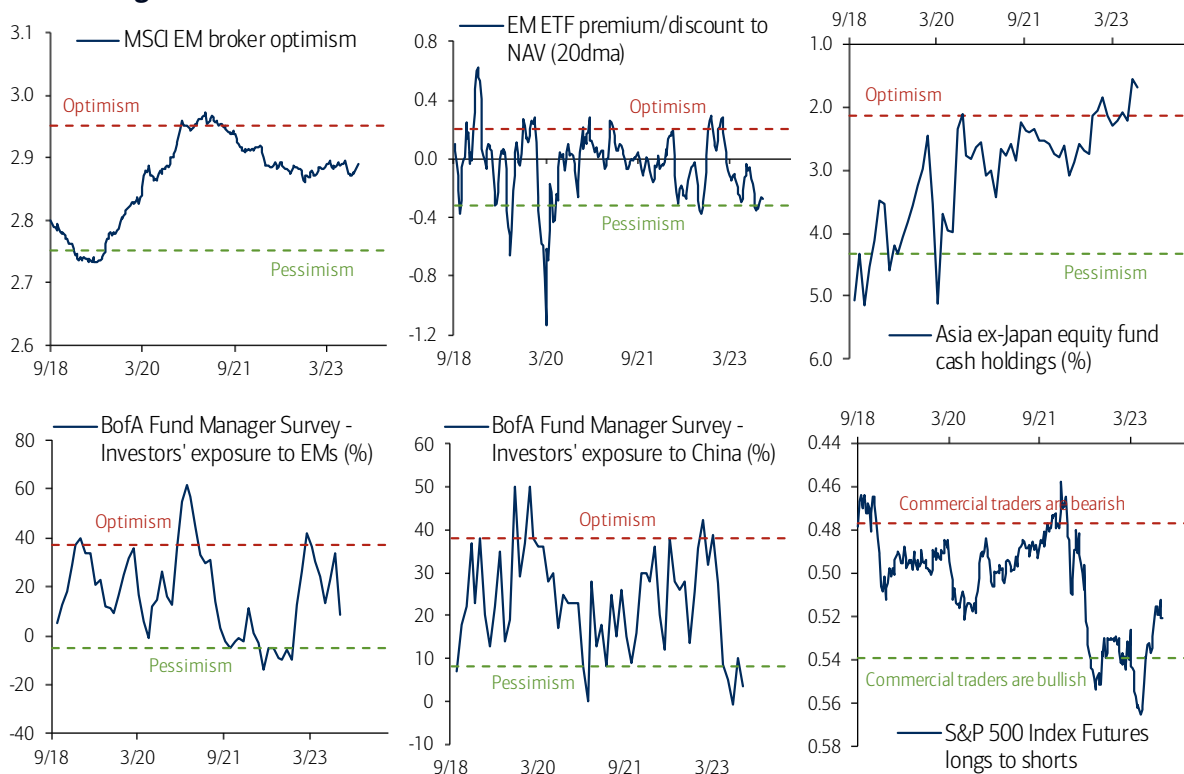
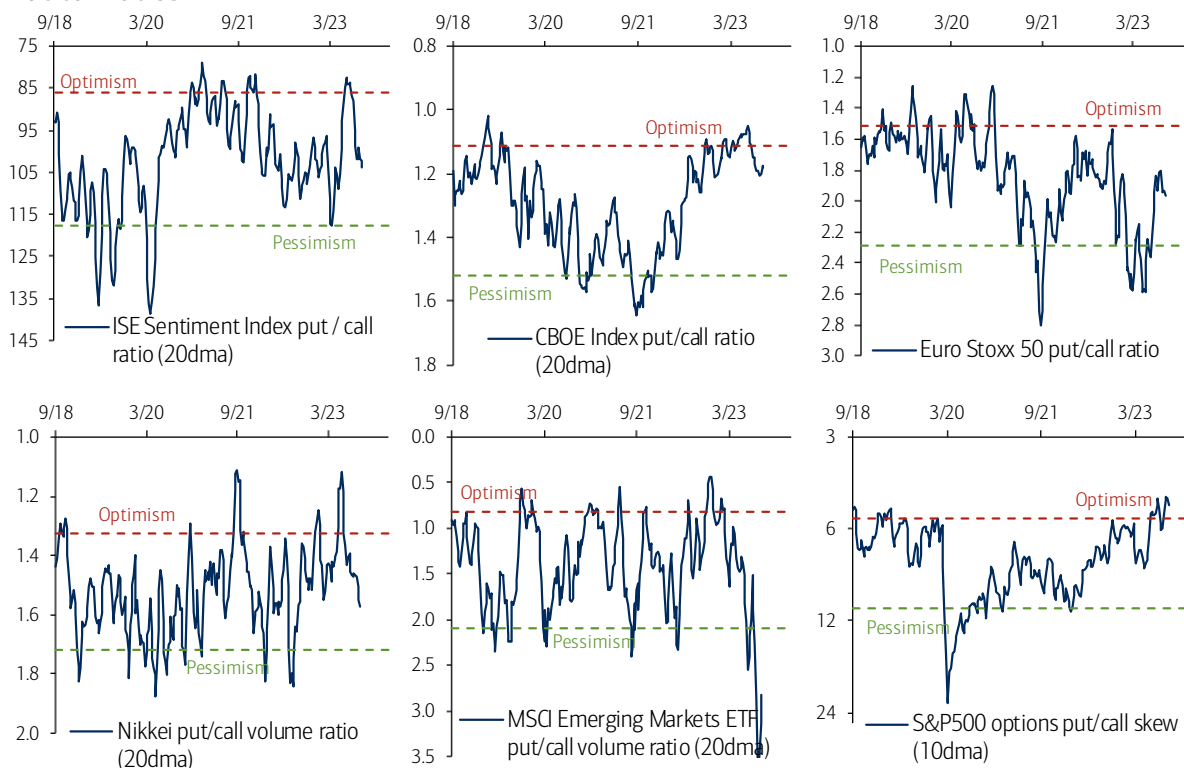


**Source:** BofA Predictive Analytics, Eikon Refinitiv, Bloomberg, CEIC, Factset, BofA Asia Pac Quantitative Strategy, Trade Futures, Consensus Inc. See Appendix for details. Note: D denotes daily data, W denotes weekly data and M denotes monthly data.

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**Exhibit 8: Global Equity Risk-Love indicator components trends**

Recent trends in positioning and put-call ratios factors

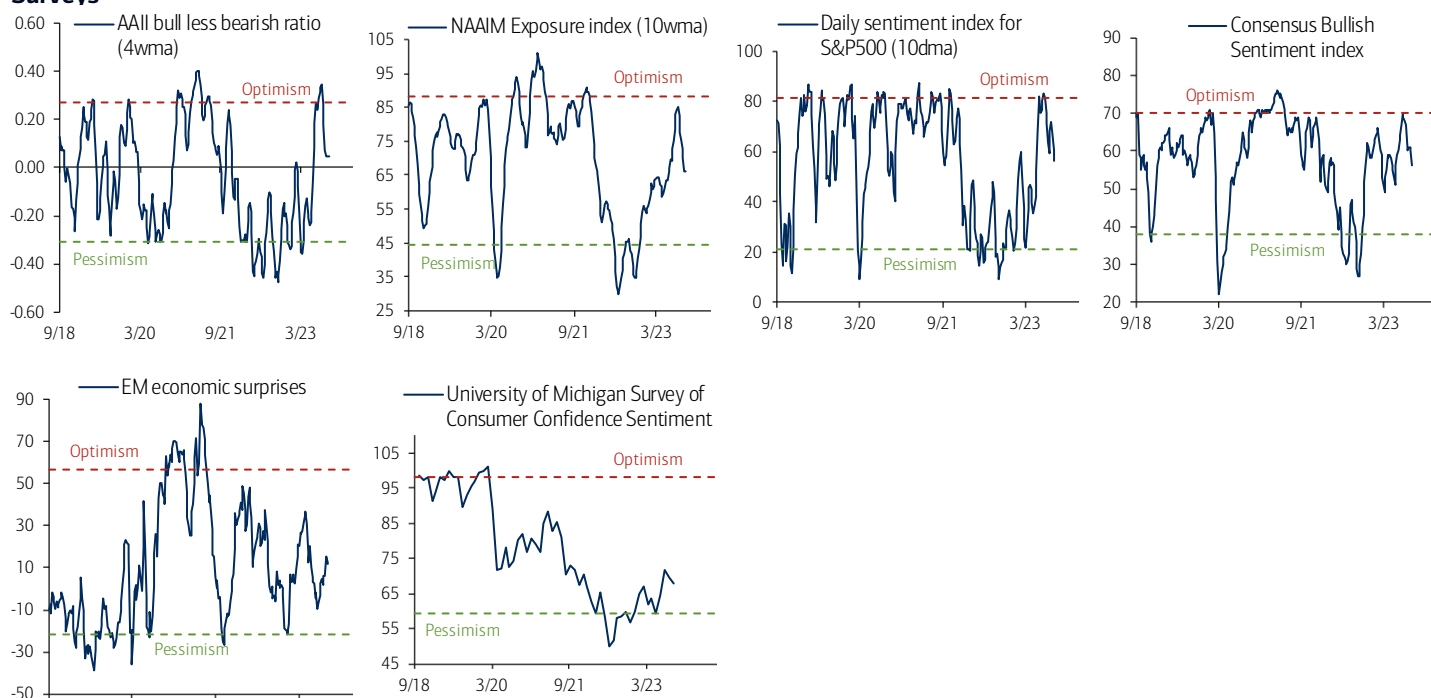
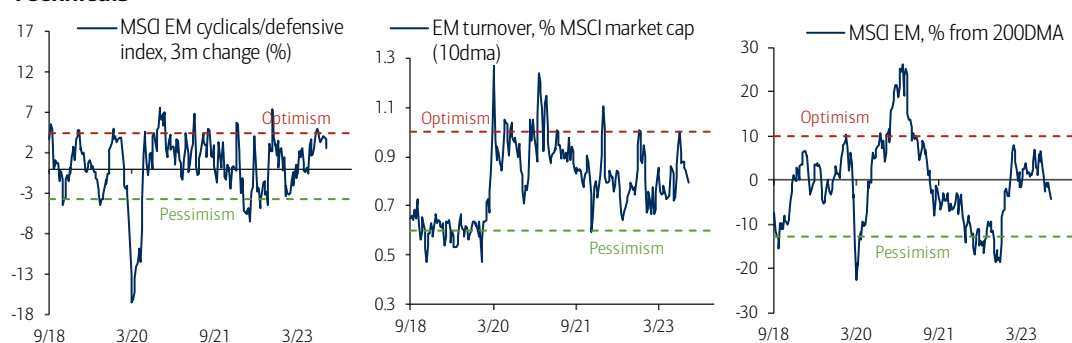
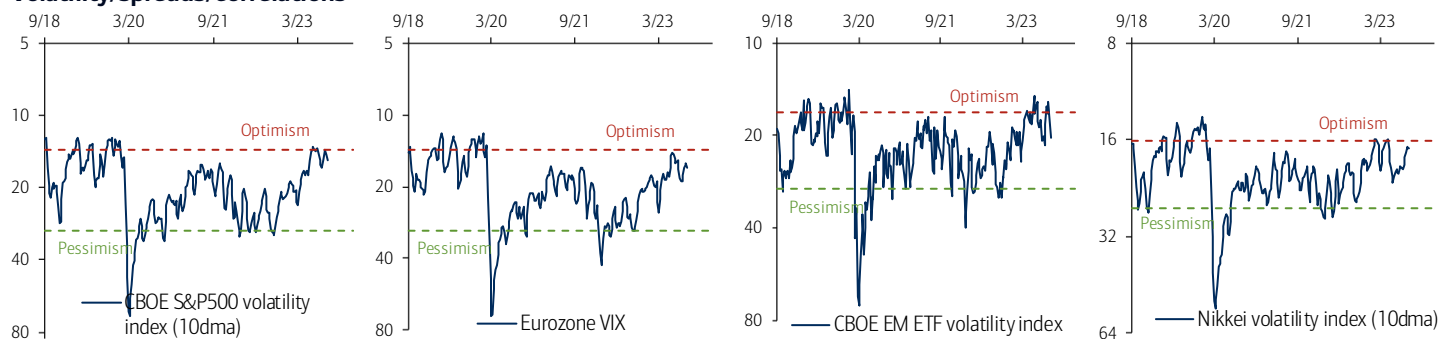
**Positioning****Put call ratios**

Source: BofA Predictive Analytics, Eikon Refinitiv, Bloomberg, CEIC, Factset, Trade Futures, Consensus Inc.

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**Exhibit 9: Global Equity Risk-Love indicator components trends cont'd**

Recent trends in surveys, technical, and volatility/spreads/correlations factors

**Surveys****Technical****Volatility/spreads/correlations**

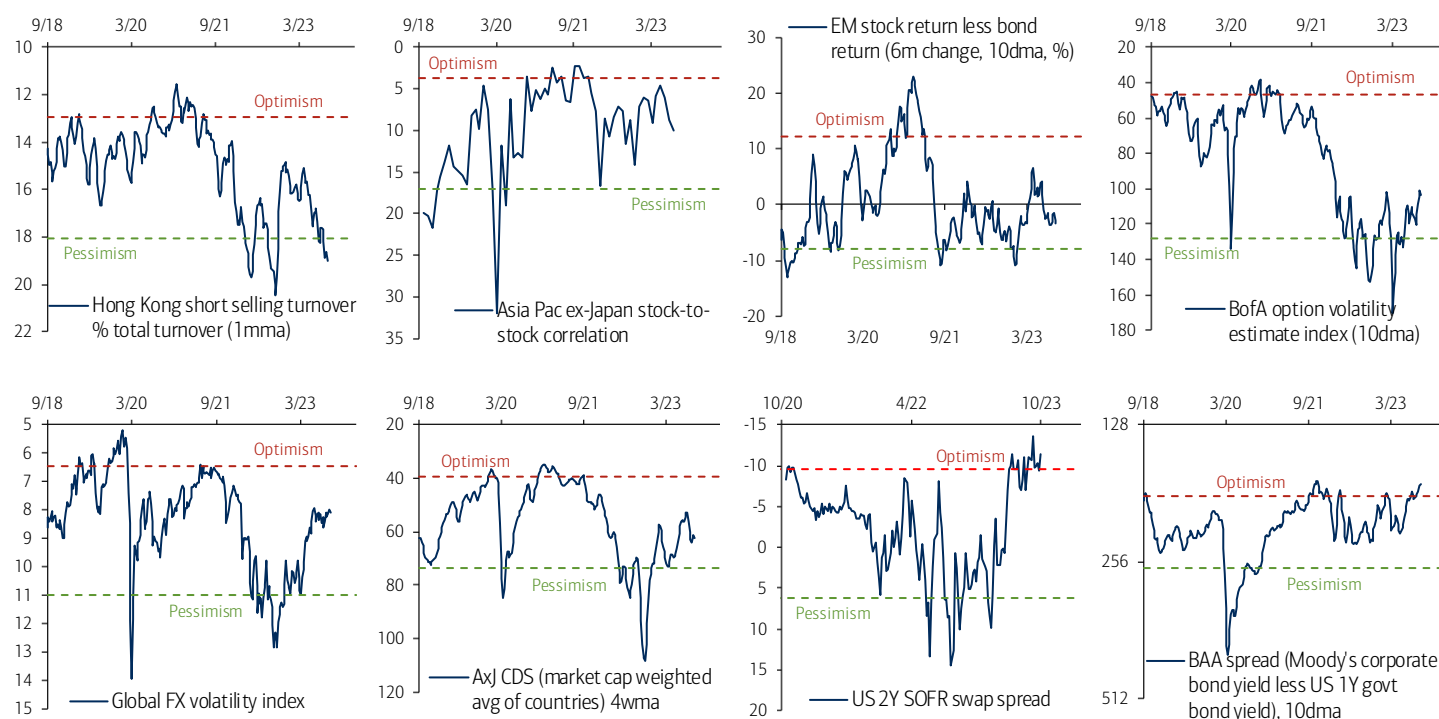
Source: BofA Predictive Analytics, Eikon Refinitiv, Bloomberg, CEIC, Factset, Trade Futures, Consensus Inc

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**Exhibit 10: Global Equity Risk-Love indicator components trends cont'd**

Recent trends in volatility/spreads/correlations factors

**Volatility/spreads/correlations contd...**

Source: BofA Predictive Analytics, Eikon Refinitiv, Bloomberg, CEIC, Factset, Trade Futures, Consensus In, BofA Asia Pac Quantitative Strategy

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## Risk-Love by market

Exhibits 11-29 show Risk-Love measures for Asia and emerging markets.

**Exhibit 11: Japan Risk-Love**

Japan Risk-Love has receded from borderline euphoria

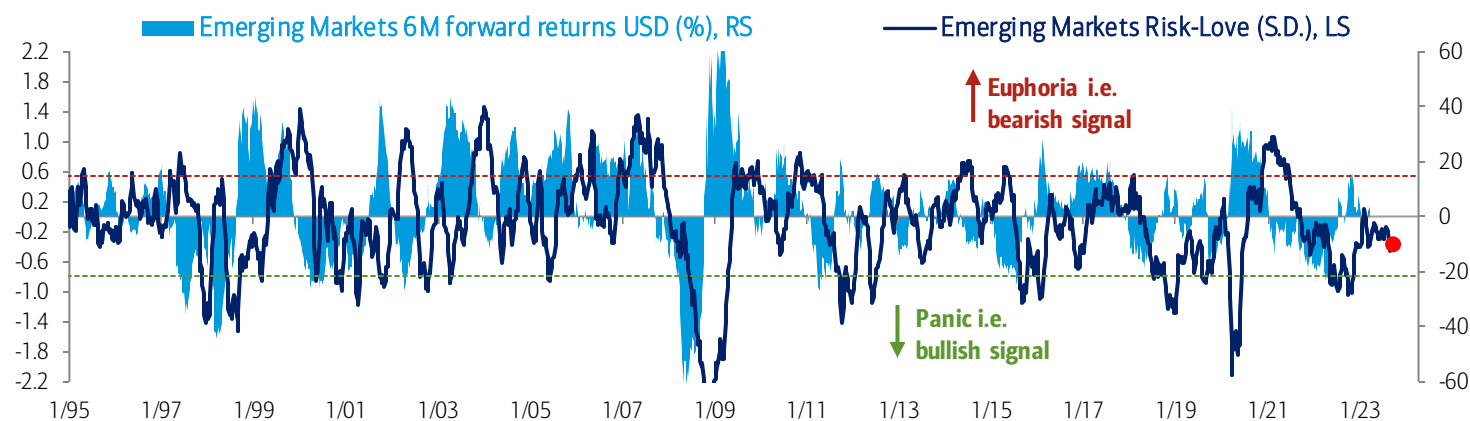


Source: BofA Predictive Analytics, FactSet

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**Exhibit 12: Emerging Markets Risk-Love**

Emerging Markets Risk-Love is in the neutral zone

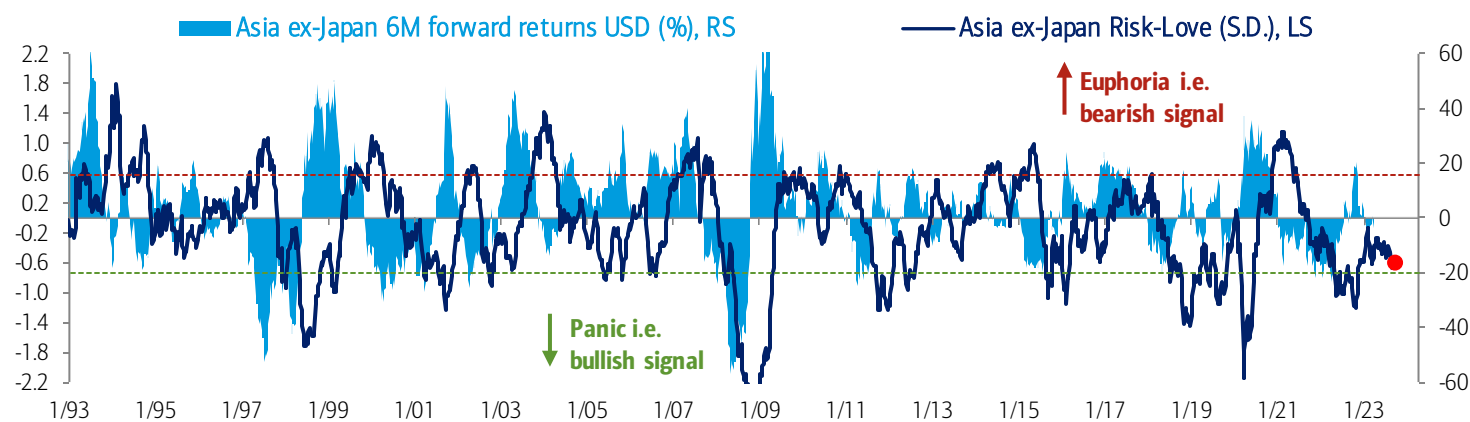


Source: BofA Predictive Analytics, FactSet

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**Exhibit 13: Asia ex-Japan Risk-Love**

Asia ex-Japan Risk-Love is closing in on the panic zone

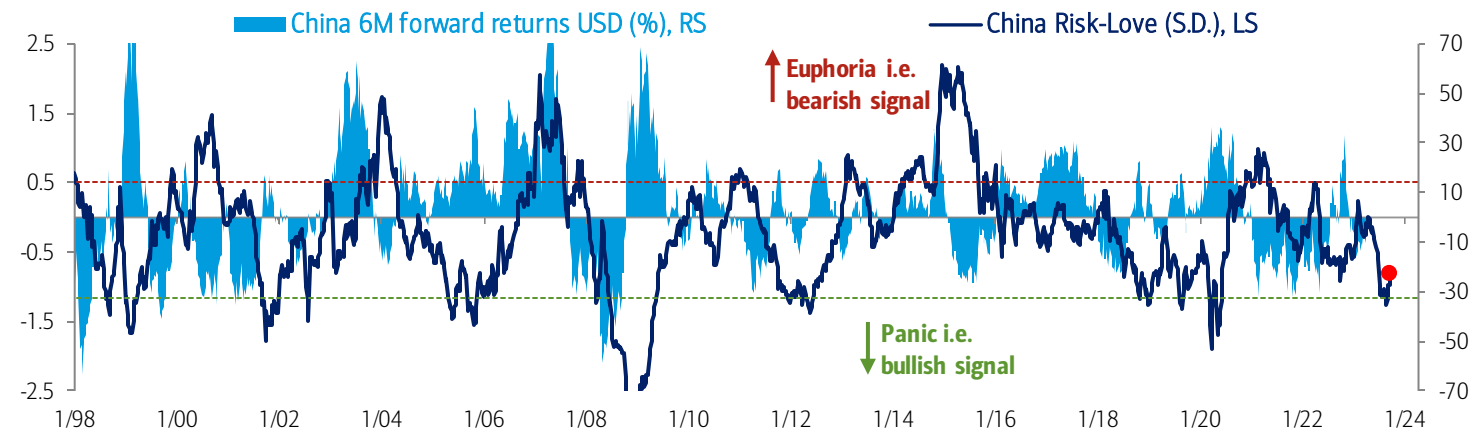


Source: BofA Predictive Analytics, FactSet

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**Exhibit 14: China Risk-Love**

China Risk-Love has crawled out of the panic zone



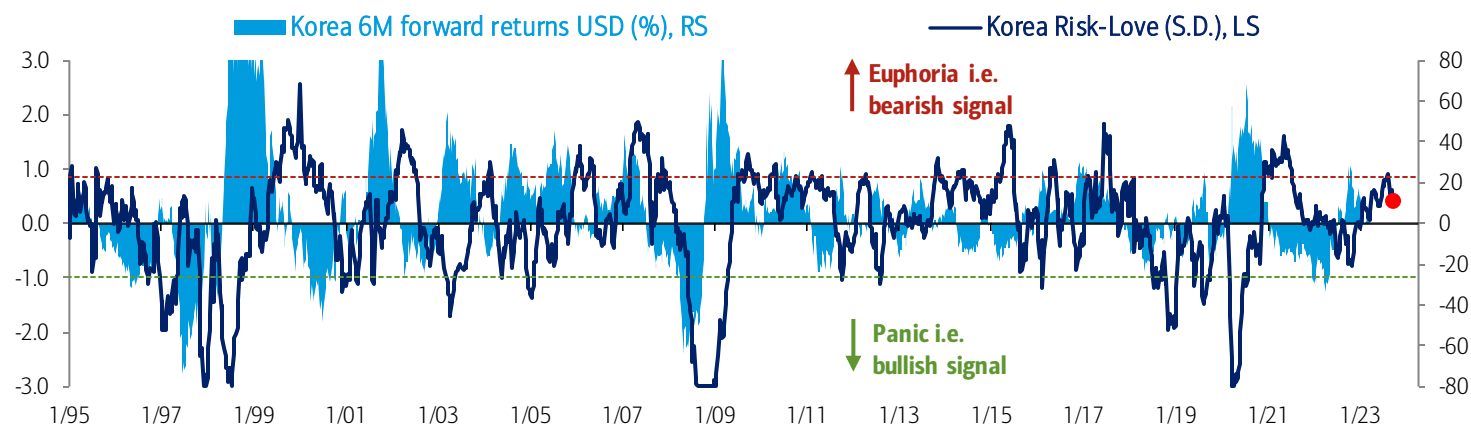
Source: BofA Predictive Analytics, FactSet

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**Exhibit 15: Korea Risk-Love**

Korea Risk-Love has receded from borderline euphoria

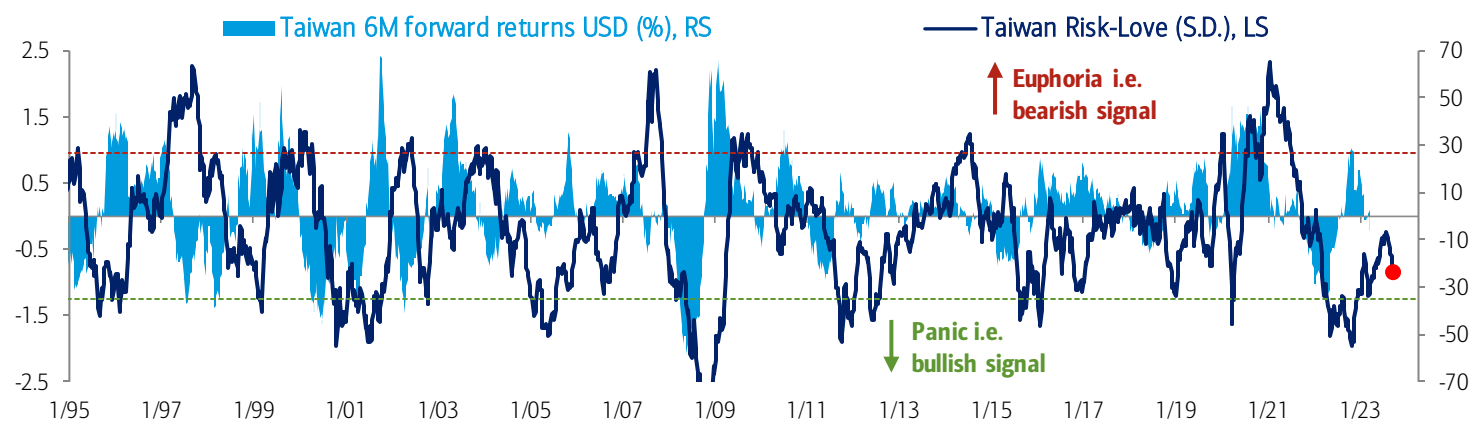


Source: BofA Predictive Analytics, FactSet

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**Exhibit 16: Taiwan Risk-Love**

Taiwan Risk-Love is in the neutral zone



Source: BofA Predictive Analytics, FactSet

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**Exhibit 17: Hong Kong Risk-Love**

Hong Kong Risk-Love is in the panic zone

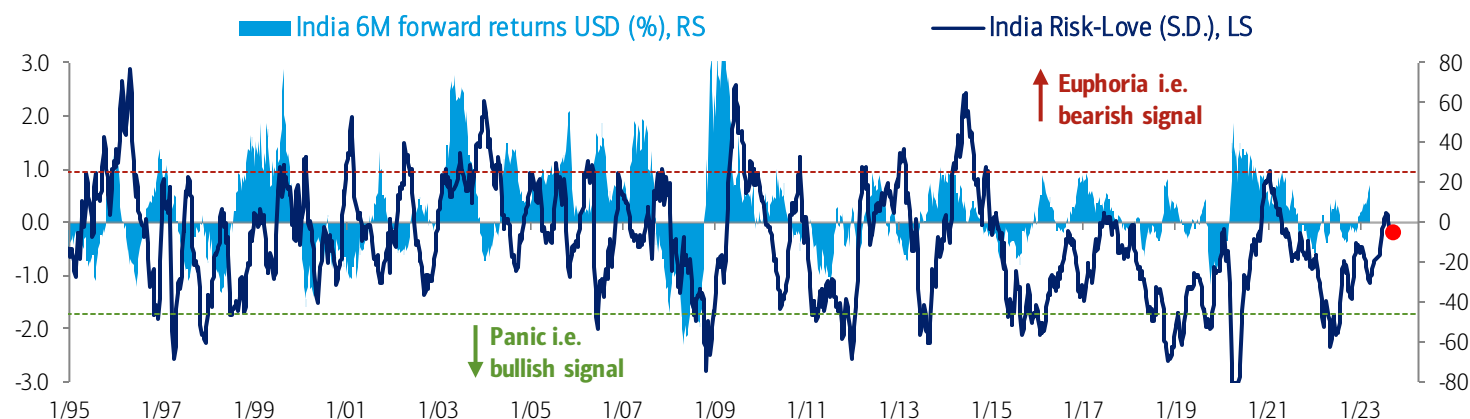


Source: BofA Predictive Analytics, FactSet

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**Exhibit 18: India Risk-Love**

India Risk-Love is in the neutral zone



Source: BofA Predictive Analytics, FactSet

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**Exhibit 19: Singapore Risk-Love**

Singapore Risk-Love is in the panic zone



Source: BofA Predictive Analytics, FactSet

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**Exhibit 20: Malaysia Risk-Love**

Malaysia Risk-Love is in the neutral zone



Source: BofA Predictive Analytics, FactSet

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**Exhibit 21: Indonesia Risk-Love**

Indonesia Risk-Love is in the neutral zone

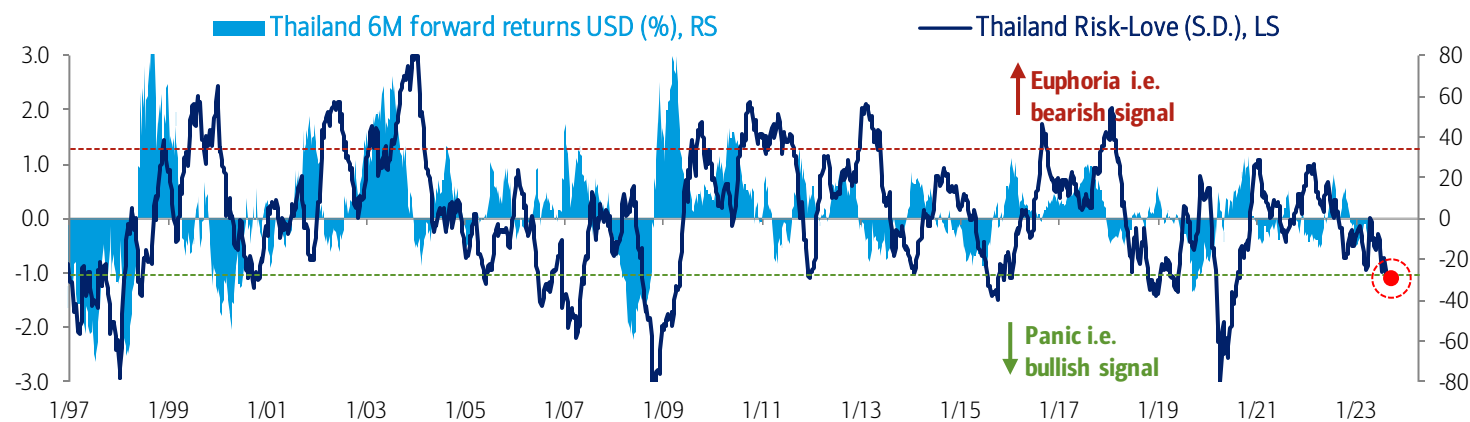


Source: BofA Predictive Analytics, FactSet

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**Exhibit 22: Thailand Risk-Love**

Thailand Risk-Love is in the panic zone

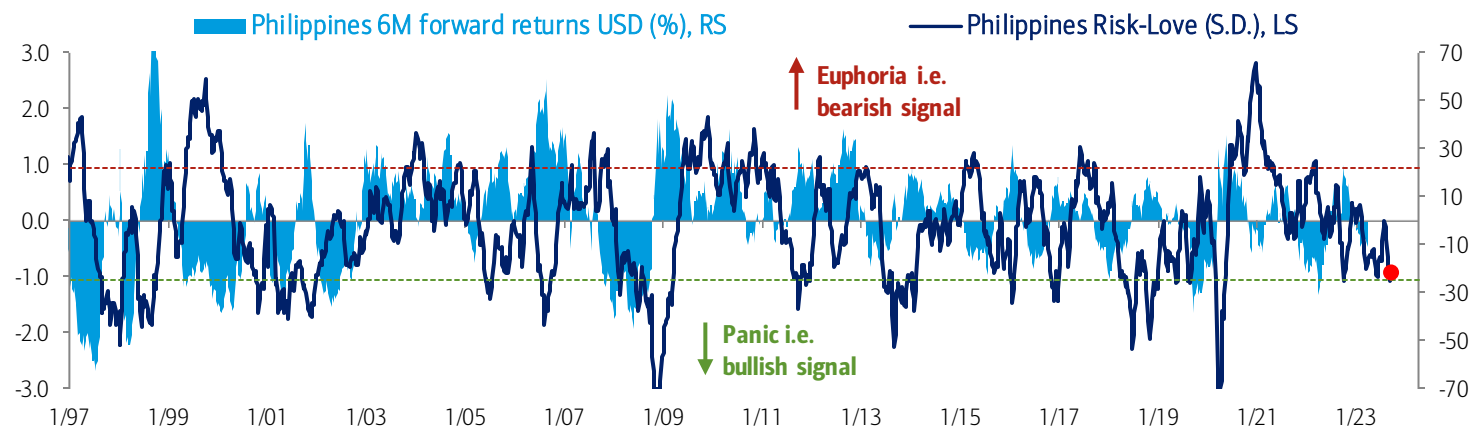


Source: BofA Predictive Analytics, FactSet

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**Exhibit 23: The Philippines Risk-Love**

The Philippines Risk-Love is closing in on the panic zone

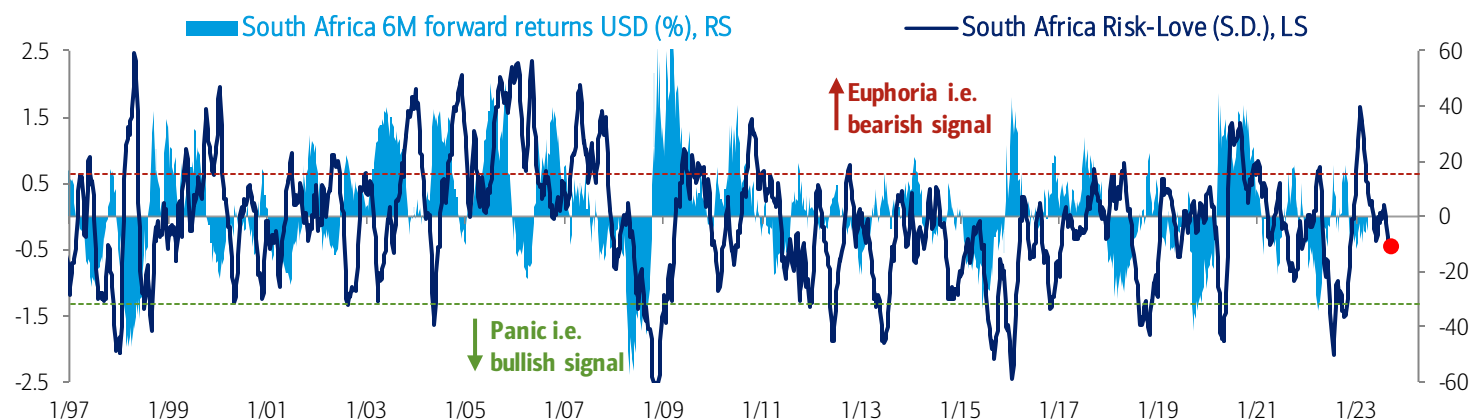


Source: BofA Predictive Analytics, FactSet

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**Exhibit 24: South Africa Risk-Love**

South Africa Risk-Love is in the neutral zone

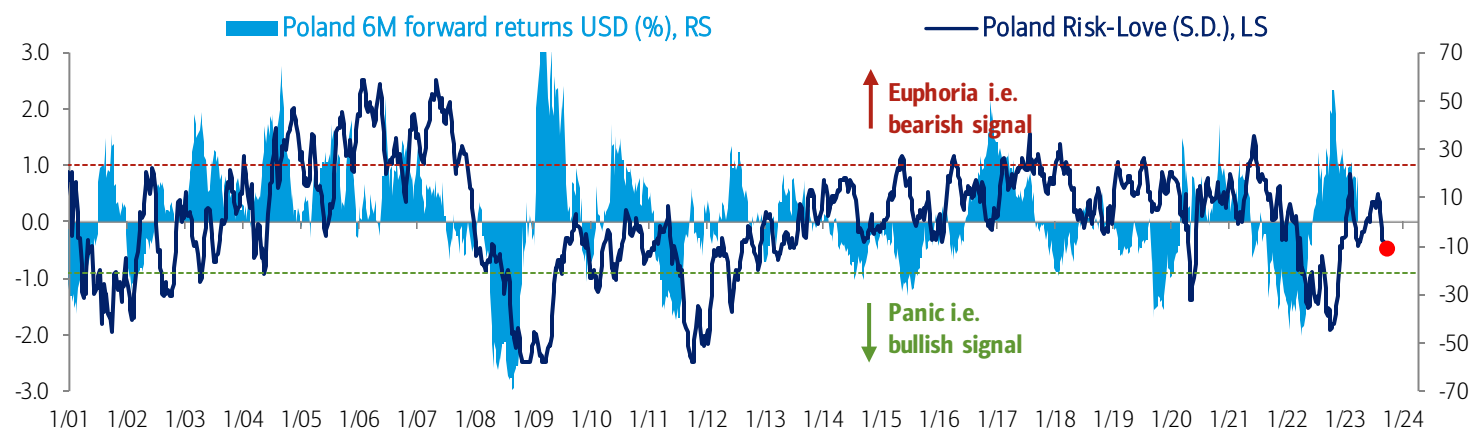


Source: BofA Predictive Analytics, FactSet

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**Exhibit 25: Poland Risk-Love**

Poland Risk-Love is in the neutral zone

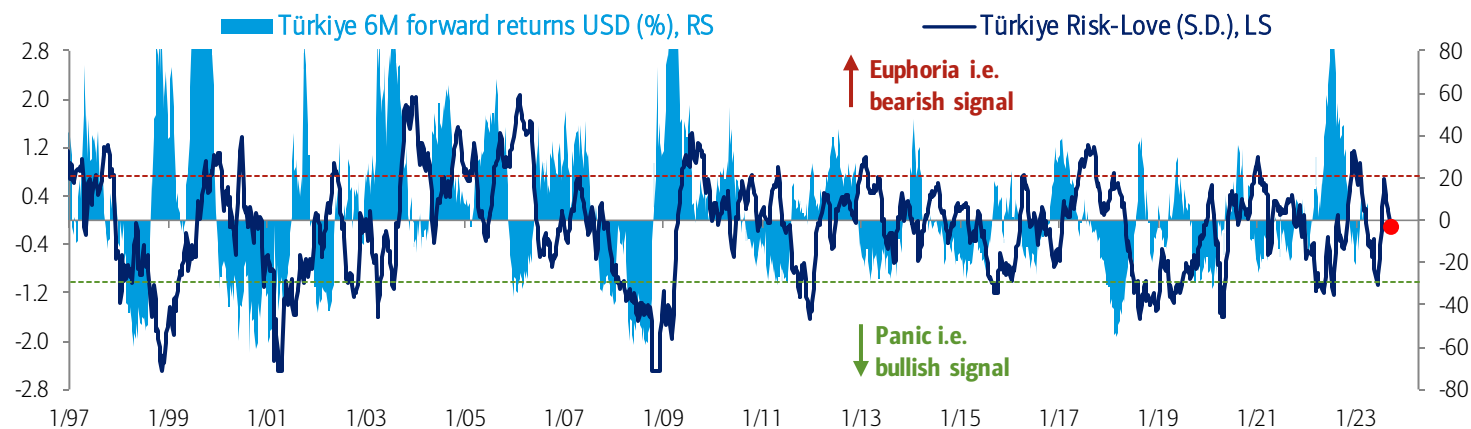


Source: BofA Predictive Analytics, FactSet

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**Exhibit 26: Türkiye Risk-Love**

Türkiye Risk-Love is in the neutral zone

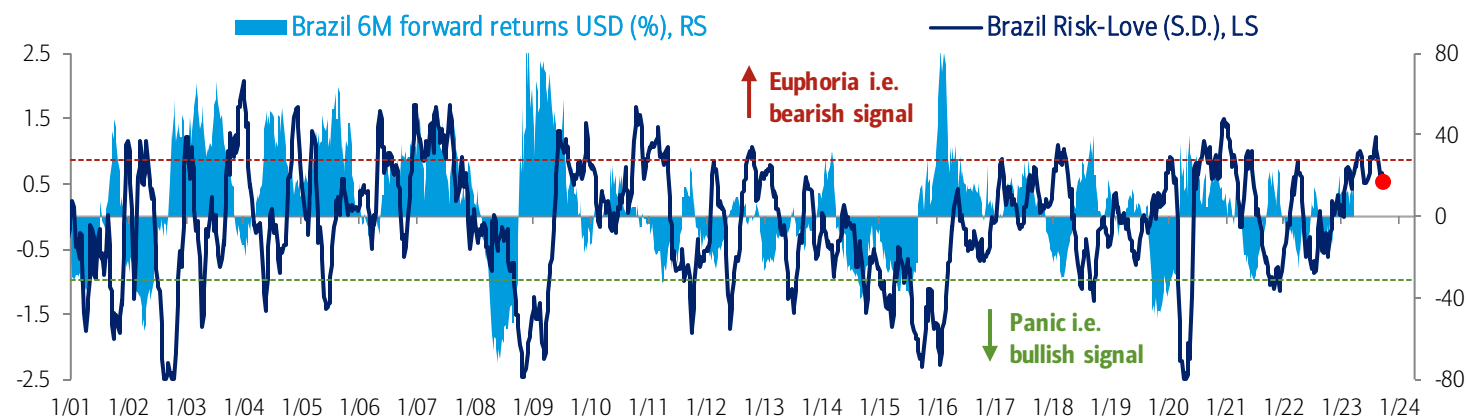


Source: BofA Predictive Analytics, FactSet

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**Exhibit 27: Brazil Risk-Love**

Brazil Risk-Love has fallen out of euphoria

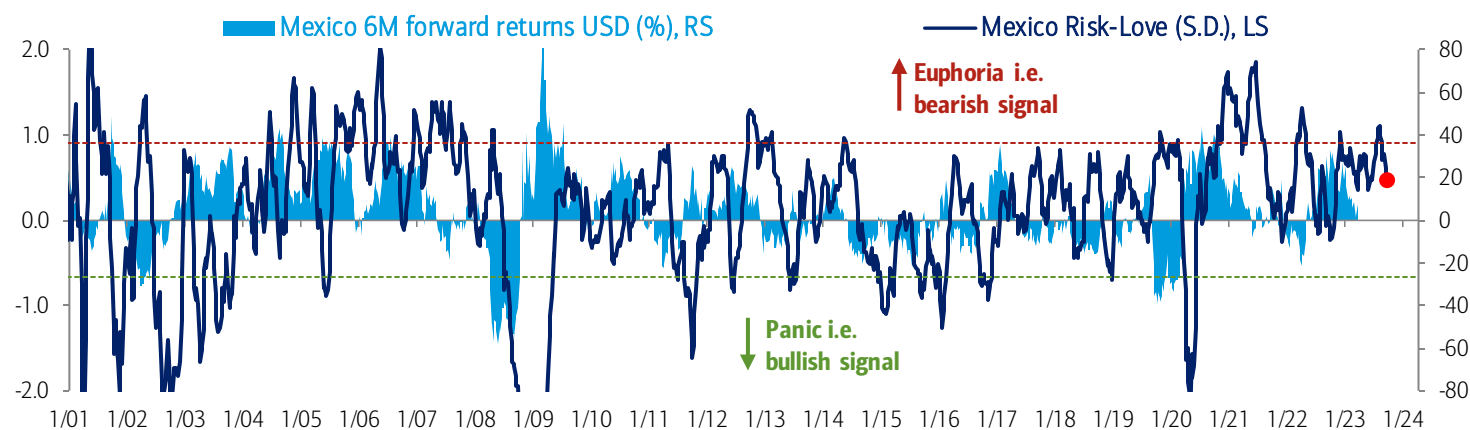


Source: BofA Predictive Analytics, FactSet

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**Exhibit 28: Mexico Risk-Love**

Mexico Risk-Love is in the neutral zone

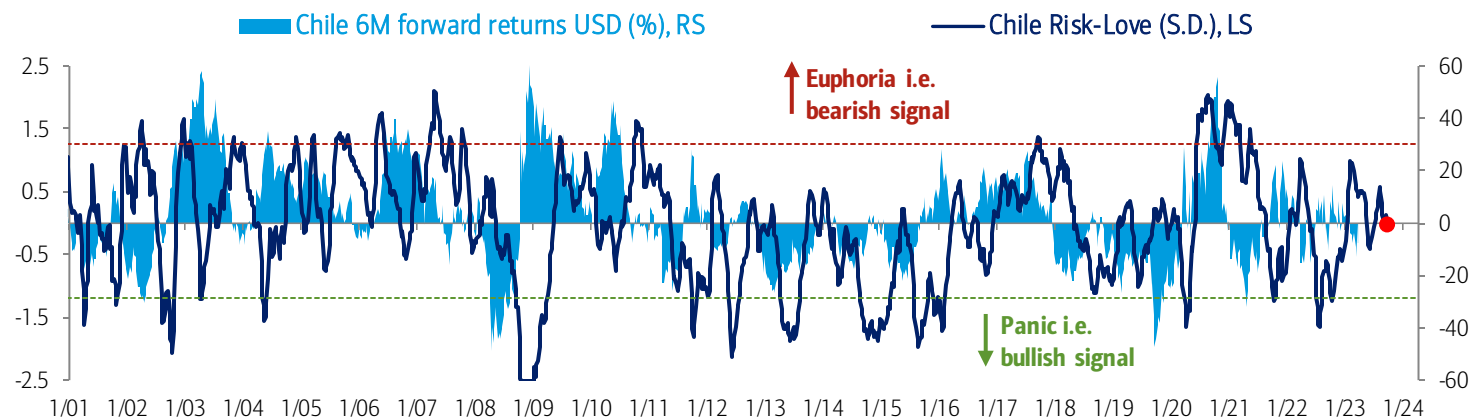


Source: BofA Predictive Analytics, FactSet

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**Exhibit 29: Chile Risk-Love**

Chile Risk-Love is in the neutral zone



Source: BofA Predictive Analytics, FactSet

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**Exhibit 30: Market intelligence as of 26 September 2023**

Performance, valuation and growth information by country/region

26-Sep-2023		USD perf (%)			12m forward										EPS growth^ (%)	
Region/Country (# Co)	Mkt cap* (US\$bn)				% dev		% dev		PB at 2008-09-lows	Div yld (%)#	% dev 10Y avg	ROE (%)	10Y avg	CY2023	CY2024	
		2022	YTD	1m	PE (x)	10Y avg	PB (x)	10Y avg								
North America (715)	39,577	-20.5	11.2	-2.8	18.0	1.1	3.4	14.8	1.4	1.7	12.6	19.1	16.8	1.0	11.8	
Canada (88)	1,751	-14.9	2.1	0.2	12.7	-13.4	1.6	-4.9	1.1	3.6	-13.1	12.9	11.9	-8.8	10.5	
US (627)	37,826	-20.8	11.7	-2.9	18.3	1.8	3.6	15.6	1.4	1.7	14.0	19.6	17.2	1.7	11.9	
Europe (427)	9,554	-17.3	4.8	-2.5	11.9	-16.7	1.7	-1.3	1.0	3.9	-6.5	14.2	12.1	-2.1	6.6	
Austria (4)	27	-28.5	1.5	-1.0	6.3	-38.3	0.8	-17.5	0.5	7.0	-71.7	12.4	9.6	-8.5	-7.2	
Belgium (13)	144	-13.8	-3.0	-3.7	15.5	-11.4	1.5	-19.1	0.6	3.0	4.3	9.4	10.3	14.8	10.0	
Denmark (16)	484	-6.2	15.9	-2.8	25.0	26.2	4.9	33.0	1.2	1.8	18.4	19.8	18.8	-27.1	9.5	
Finland (12)	127	-17.0	-16.1	-1.7	13.6	-18.0	1.7	-18.5	1.2	4.7	-12.1	12.4	12.5	-23.6	17.2	
France (63)	1,764	-15.3	6.9	-4.3	12.4	-13.3	1.7	9.8	0.9	3.5	-1.3	13.4	10.7	-0.5	6.6	
Germany (59)	1,219	-24.3	5.3	-4.1	10.2	-21.2	1.2	-17.3	0.9	3.9	-20.0	12.1	11.6	2.6	9.6	
Ireland (6)	79	-27.2	15.2	-8.5	12.2	-28.8	1.5	-11.1	0.5	2.8	-35.4	12.7	10.3	14.0	6.9	
Italy (23)	382	-17.5	17.0	-1.9	7.9	-34.0	1.2	5.2	0.6	5.9	-29.1	15.2	9.9	8.4	-0.4	
Netherlands (26)	622	-29.1	1.8	-7.1	15.2	-11.9	2.4	12.4	1.1	2.6	-1.3	16.1	12.7	17.8	10.9	
Norway (12)	104	-10.8	-4.9	5.1	10.2	-20.0	1.6	0.8	0.9	6.5	-34.0	16.0	13.1	-37.1	9.9	
Portugal (4)	32	-2.3	-7.2	-5.3	14.7	-10.9	2.0	8.4	1.2	3.9	6.8	13.4	11.0	30.1	7.0	
Spain (19)	387	-9.3	14.4	-1.2	9.9	-22.3	1.1	-3.9	1.0	5.3	-14.7	11.5	9.4	9.3	1.3	
Sweden (43)	452	-30.0	-2.5	0.5	12.8	-19.1	2.0	-5.6	1.1	4.0	-7.9	15.6	13.4	17.6	2.5	
Switzerland (44)	1,469	-19.8	3.0	-3.4	16.4	-5.2	3.0	14.8	1.4	3.2	-1.5	18.4	15.2	5.6	11.0	
UK (83)	2,262	-8.5	3.1	1.2	10.5	-20.0	1.6	-6.6	1.1	4.4	-2.1	14.8	12.8	-11.7	4.8	
Israel (14)	99.8	-27.9	-1.5	-1.0	9.3	-13.7	2.0	49.5	1.0	2.6	-12.7	22.0	12.8	-5.3	5.8	
Asia Pac (1544)	10,205	-19.4	1.3	-0.2	13.1	-2.6	1.4	-0.8	0.9	2.8	-1.7	10.5	10.3	2.5	13.9	
Japan (235)	3,463	-18.5	11.6	3.1	14.5	3.8	1.3	9.6	0.8	2.3	-1.0	9.2	8.8	8.5	6.9	
Australia (59)	1,079	-9.7	-4.7	-0.2	14.9	-4.5	1.9	1.2	1.3	4.4	4.7	13.0	12.4	-4.3	-1.5	
New Zealand (6)	28	-15.7	-10.0	-1.4	29.9	14.1	2.6	-0.8	1.3	3.2	12.3	8.6	10.1	14.1	12.2	
Asia ex-Japan (1244)	5,635	-21.5	-3.1	-2.1	12.2	-4.3	1.3	-7.3	1.0	2.8	-3.7	11.0	11.3	1.0	21.3	
ASEAN (131)	598	-7.1	-6.4	-2.3	13.0	-10.8	1.4	-10.0	1.1	4.2	-23.5	11.0	11.0	21.8	7.4	
China (765)	1,925	-23.6	-10.7	-2.0	9.6	-16.4	1.1	-22.7	1.1	2.7	-4.1	11.6	12.6	16.8	15.2	
Hong Kong (32)	333	-7.9	-21.8	-4.7	11.4	-24.0	0.8	-26.7	0.8	4.6	-38.7	7.4	7.7	4.0	13.8	
India (122)	1,025	-8.7	7.0	1.8	20.3	8.8	3.2	14.4	1.4	1.5	6.8	15.5	14.8	22.2	14.5	
Indonesia (22)	129	1.1	1.6	-2.5	13.9	-5.9	2.1	-13.1	1.4	4.3	-43.7	15.2	16.5	33.9	10.4	
Korea (104)	795	-30.8	6.2	-4.1	11.7	13.6	0.9	-4.9	0.9	2.3	-10.7	8.0	9.8	-34.8	69.1	
Malaysia (32)	92	-9.5	-9.5	-1.0	13.5	-11.2	1.3	-17.9	1.3	4.3	-21.5	9.6	10.3	7.2	10.2	
Philippines (14)	40	-15.2	-6.2	0.5	11.8	-30.3	1.5	-27.3	1.3	2.7	-38.0	12.7	12.1	22.5	9.9	
Singapore (22)	213	-14.1	-4.4	0.5	11.5	-14.0	1.2	-0.3	0.9	4.9	-18.3	10.5	9.1	42.0	1.9	
Taiwan (90)	958	-32.2	8.0	-3.5	14.7	5.3	2.0	8.6	1.0	3.5	12.0	13.7	13.3	-21.7	22.6	
Thailand (41)	124	2.5	-14.2	-8.1	16.5	8.5	1.6	-10.2	0.9	3.0	2.8	9.9	12.1	-11.0	14.5	
EMEA (159)	830	-30.4	-3.4	-3.7	10.2	2.5	1.4	15.7	0.7	4.4	-1.4	14.2	12.5	-1.1	9.4	
Czech Republic (3)	10	-18.6	16.6	-2.4	11.8	-10.1	1.7	21.4	1.3	7.7	-22.6	14.2	10.7	-41.7	-0.7	
Egypt (3)	6	-25.3	15.5	14.5	6.6	-25.6	1.9	8.6	1.1	3.6	-1.5	28.4	19.6	71.0	17.2	
Greece (10)	30	-2.3	32.0	-6.4	9.5	-27.6	1.9	14.2	0.7	5.6	-23.9	20.0	13.3	-3.6	3.4	
Hungary (3)	15	-33.7	23.3	-8.2	5.1	-45.2	0.8	-25.8	0.6	5.0	-50.2	16.0	12.1	-15.3	6.0	
Kuwait (7)	53	7.2	-10.1	-2.9	10.3	-40.6	1.8	-11.6	na	4.9	-40.2	17.1	12.2	13.3	10.2	
Poland (15)	50	-29.3	6.3	-9.1	7.2	-36.7	0.9	-16.0	0.8	4.6	-23.5	13.1	10.0	3.8	-6.8	
Qatar (13)	60	-9.9	-6.6	-2.1	10.9	-13.7	1.4	-19.2	na	4.8	-13.8	13.1	14.0	0.1	7.6	
Saudi Arabia (42)	267	-7.2	-2.4	-5.1	15.8	-7.8	2.0	-3.8	na	3.8	-3.9	12.7	12.2	-13.2	18.3	
South Africa (34)	198	-7.2	-11.9	-5.1	8.9	-29.7	1.2	-39.0	0.9	4.8	-29.5	13.1	15.3	4.9	12.7	
Türkiye (18)	48	83.9	2.9	2.5	5.8	-17.9	1.3	25.8	0.7	4.0	17.1	22.9	15.5	-8.5	20.1	
UAE (11)	91	-8.8	-0.2	3.0	10.6	-7.5	1.4	2.0	na	4.1	7.0	13.3	12.1	16.1	-5.0	
Latin America (88)	566	-0.1	7.1	-4.3	8.3	-30.3	1.3	-19.1	1.2	6.1	-49.7	15.8	14.1	-18.7	3.6	
Brazil (47)	348	1.7	5.3	-2.4	7.5	-28.8	1.2	-20.6	1.1	6.3	-32.2	16.0	14.9	-25.8	3.7	
Chile (12)	32	15.1	-9.4	-10.2	8.2	-42.3	1.0	-24.8	1.1	13.2	-193.9	12.7	9.9	-23.6	-0.8	
Colombia (3)	7	-12.7	-9.6	1.8	5.0	-55.8	0.7	-43.1	na	8.9	-132.5	13.7	11.3	-3.4	-0.3	
Mexico (23)	162	-5.2	16.5	-7.0	11.1	-27.4	1.9	-11.0	1.5	4.3	-47.8	16.9	13.9	14.7	3.5	
Peru (3)	17	5.6	5.1	-6.7	9.1	-27.6	1.4	-21.9	0.5	5.1	-76.9	15.4	14.3	-12.7	16.1	
Developed Markets (1510)	54,348	-19.5	9.3	-2.3	16.1	-2.1	2.6	13.6	1.2	2.2	9.2	16.1	13.8	0.7	9.8	
Emerging Markets (1437)	6,485	-22.4	-1.0	-2.5	11.5	-4.1	1.4	-4.7	1.0	3.2	-5.8	12.1	12.2	-3.6	18.2	
World (2947)	60,832	-19.8	8.1	-2.3	15.5	-2.2	2.4	10.8	1.1	2.3	7.4	15.4	13.6	0.1	10.9	

**Source:** BoFA Predictive Analytics, MSCI, IBES estimates. Note: numbers in red text indicate that the valuation metric is 2 standard deviations above its 10-year average. Numbers in green indicate the valuation metric is 2 standard deviations below its 10-year average. #Positive deviation for dividend yield implies current dividend is LOWER than the 10yr average and vice-versa. \*Market caps shown are free float. ^Currency for EPS growth estimates: (a) UK: GBP; (b) Eurozone country and regional indices: EUR; (c) Other regional indices, Russia, Peru: USD; (d) Other individual countries: Local currency.

BoFA GLOBAL RESEARCH



# Glossary

## Global Equity Risk-Love factors

### Positioning

#### 1. Commitment of traders - S&P 500 Index futures: longs to shorts

Measures open interest for all traded S&P500 commercial futures, broken down into long and short positions.

#### 2. MSCI EM broker optimism

Market cap-weighted consensus (IBES) stock rating for the MSCI EM universe.

#### 3. MSCI Emerging Markets ETF premium/discount to NAV

The difference between the closing price of the fund/ETF and that day's NAV.

#### 4. Asia ex-Japan fund cash holdings

The fund-weighted average of percentage of cash relative to total asset held by active funds that have dedicated geographic exposure to Asia ex-Japan.

#### 5. Investors' exposure to EMs - Global FMS - asset allocation

Based on the BofA Global Fund Manager Survey, this measures the net percentage of global asset allocators saying they are overweight Emerging Market equities.

#### 6. Investors' exposure to China - Global FMS - asset allocation

Based on the BofA Global Fund Manager Survey, this measures the net percentage of global asset allocators saying they would overweight China equities.

### Put/call ratios

The Put/Call ratio shows put option volume relative to call option volume. Sentiment is deemed excessively bearish when the ratio is at relatively high levels, and excessively bullish when at relatively low levels.

Indicators used include:

#### 1. Put/Call ratio at market open (ISE Sentiment Index)

#### 2. CBOE Put/Call ratio

#### 3. Euro Stoxx 50 put/call ratio

#### 4. Nikkei put/call volume ratio

#### 5. MSCI Emerging Markets ETF put/call volume ratio

#### 6. S&P 500 options put/call skew (delta 25, 3-month)

### Surveys

#### 1. American Association of Individual Investors - bull less bearish ratio

This ratio reflects the sentiment of individual investors towards the stock market over the next six months – either bullishness or bearishness in the stock market. The question asked is "I feel that the direction of the stock market over the next six months will be". High bullish readings in the poll usually are signs of market tops; lows ones, market bottoms.

#### 2. National Association of Active Investment Managers Exposure index

The index represents the average exposure to US equity markets reported by members of the Association of Active Investment Managers. It provides insight into the actual adjustments active risk managers have made to client accounts over the past two weeks.



**3. Small retail trader sentiment (Daily sentiment index) for S&P 500**

This is a contrary opinion indicator. High % bullish readings suggest that a short-term top is developing or has been made. Low % bullish readings suggest that a short term bottom is developing or has been made.

**4. Major professional brokerage firms and advisors sentiment (Consensus Bullish Sentiment Index)**

A gauge of positions and attitudes of major professional brokers and advisors, which provides an indication of potential market directions. When a predominant number of market analysts are bearish, it is quite likely that the market is approaching an oversold condition, and that a reversal in trend may be forthcoming.

**5. Emerging markets economic surprises Index**

The Citi Economic Surprise Index measure data surprises relative to market expectations. A positive reading means that data releases have been stronger than expected and a negative reading means that data releases have been worse than expected.

**6. University of Michigan Survey of Consumer Confidence Sentiment**

This Index is comprised of measures of attitudes toward personal finances, general business conditions, and market conditions or prices.

**7. Small retail trader sentiment (Daily sentiment index) for commodities**

This is a contrary opinion indicator. High % bullish readings suggest that a short-term top is developing or has been made. Low % bullish readings suggest that a short term bottom is developing or has been made.

**Technicals****1. Emerging Markets cyclical/defensives (3m change)**

The 3-month change in the MSCI EM cyclical/defensives index, where cyclicals comprise energy, materials, consumer discretionary and industrials sectors and defensives comprise consumer staples, healthcare, utilities and telecom sectors.

**2. Emerging Market turnover, % MSCI market cap**

Turnover of MSCI Emerging markets as a percentage of MSCI market cap.

**3. MSCI Emerging Markets - distance from 200D moving average**

The higher the index is from its 200-day moving average, the more bullish the market is becoming.

**Volatility/spreads/correlations****Volatility indices**

Measures the implied volatility of options on the underlying index or ETF. Lower readings indicate complacency in the market and higher readings represent greater uncertainty/fear.

**1. CBOE S&P500 VIX Index****2. Eurozone volatility index VSTOXX****3. CBOE Emerging Markets ETF volatility index****4. Nikkei stock average volatility index****5. Hong Kong short interest, % total turnover**

Hong Kong Main Board short selling turnover value as a percentage of total turnover



**6. Asia Pac ex-Japan stock-to-stock correlations**

This is calculated as the 3-month rolling stock-to-stock correlation of daily price returns of all the stocks in the region. The lower the correlation, the higher the opportunities for investors to add alpha from stock selection.

**7. EM stock less bond returns**

Calculated as the difference between 6-month total returns of the MSCI EM index and BofA Global EM sovereign and credit index.

**8. BofA option volatility estimate (MOVE) index**

This is a yield curve weighted index of the normalized implied volatility on 1-month Treasury options.

**9. Global FX volatility index****10. Asia ex-Japan CDS spread**

Market cap-weighted CDS spread of 8 Asia ex-Japan markets.

**11. US 2Y swap spread**

The spread between the rate on a two-year interest-rate swap and U.S. Treasury yields.

**12. BAA spread**

This is calculated as Moody's corporate (BAA) bond yield less the US 10Y government bond yield.

**Options Risk Statement****Potential Risk at Expiry & Options Limited Duration Risk**

**Unlike owning or shorting a stock, employing any listed options strategy is by definition governed by a finite duration. The most severe risks associated with general options trading are total loss of capital invested and delivery/assignment risk... all of which can occur in a short period.**

**Investor suitability**

The use of standardized options and other related derivatives instruments are considered unsuitable for many investors. Investors considering such strategies are encouraged to become familiar with the "Characteristics and Risks of Standardized Options" (an OCC authored white paper on options risks). U.S. investors should consult with a FINRA Registered Options Principal.

For detailed information regarding the risks involved with investing in listed options: <http://www.theocc.com/about/publications/character-risks.jsp>



# 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 <sup>R1</sup>
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

<sup>R1</sup> 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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