

## The Inquirer

# Befuddled by the Bull? The Primacy of Free Liquidity and Risk-Love

Equity Strategy

## Sentiment, Liquidity and Earnings

Many investors have been perplexed by the equity market racing away from so-called “fundamentals”, which in our view they misguidedly define as earnings growth. We think this approach is incomplete, has proved to be so in the past, and will likely keep tripping up earnings growth fixated investors in the future. Why?

Stock market moves are mathematically, the sum of: 1) change in sentiment/ownership (market cap to M1), 2) change in free liquidity (the gap between M1 growth and nominal economic growth) and 3) economic/earnings growth.

Clearly, it makes sense to forecast earnings growth to determine where markets are headed, especially in the longer-term as growth contributes about 60% of the returns on a 3-year horizon, compared with 35% on a 1-year horizon and only about 25% on a 1-quarter horizon, based on data since 1989. And that is what both the sell-side and the buy-side spend a considerable time doing. Unfortunately, our work shows that consensus earnings growth forecasts in Asia ex-Japan, EMs and DMs are highly inaccurate, especially at turning points. Clearly, if an investor *does* have an edge in predicting earnings growth - the most important *contemporaneous* driver of stock markets - it is a massive edge.

However, we prefer indicators that have predictive power in ascertaining stock market moves, not contemporaneous indicators like earnings growth which are more subject to human error. So, what are these? Sentiment / market ownership and free liquidity. When sentiment / market ownership - proxied by the market cap/M1 ratio - is in the lowest, depressed quintile, global equities tend to rally 11.1% in the following year. Conversely, when market ownership is euphoric in the highest quintile, forward global equity returns one year later are only 6.5%, on average.

When free liquidity, the excess growth of M1 over nominal economic growth - is abundant in its top quintile, global equity returns are a juicy 11.2% (and emerging equities, 22.4%) Conversely, when free liquidity is scarce, absorbed by a roaring economy, forward global (and emerging markets) equity returns are 2.6% (and 13.4% for EM). These two metrics - market ownership / sentiment and free liquidity are even more powerful market predictors when economic/earnings growth is contracting. They get even more potent in recessions. However, in our view, investors don't pay sufficient attention to these two factors (*sentiment and liquidity*), which contribute 60%, 50% and 35% of the market returns on a 1-quarter, 1-year and 3-year horizon respectively.

## Abundant liquidity, but Risk-Love has risen to neutral

While market ownership/Risk-Love/positioning is not as attractive after a sharp rally since late March, free liquidity is abundant thanks to easy central banks. And strong breadth thrusts from a broadening market rally have been triggered. This remains a positive cocktail in our view and we think pullbacks should be seen as opportunities.

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Refer to important disclosures on page 13 to 14.

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# Befuddled by the Bull? The Primacy of Free Liquidity and Risk-Love

To the man with a hammer, everything looks like a nail. Many investors have been perplexed by the equity market racing away from so-called “fundamentals”, which in our view they misguidedly define as earnings growth. We think this approach is incomplete, has proved to be so in the past, and will likely keep tripping up earnings growth fixated investors in the future. Why?

Stockmarket moves are mathematically, the sum of: 1) change in sentiment/ownership (market cap to M1), 2) change in free liquidity (the gap between M1 growth and nominal economic growth) and 3) economic/earnings growth.

$$\begin{aligned} \text{Market Cap} &= (\text{Market Cap} / \text{M1}) * (\text{M1} / \text{GDP}) * \text{GDP} \\ \text{i.e. Market Cap} &= \text{Sentiment} * \text{Liquidity} * \text{Growth} \\ \Delta \text{Market Cap} &= \Delta \text{Sentiment} + \Delta \text{Liquidity} + \Delta \text{GDP} + \text{residual} \end{aligned}$$

(Concept courtesy: Chapter 10 *Capital Wars: The Rise of Global Liquidity* by Michael J. Howell and *Money, Credit and Asset Prices* by Gordon T. Pepper)

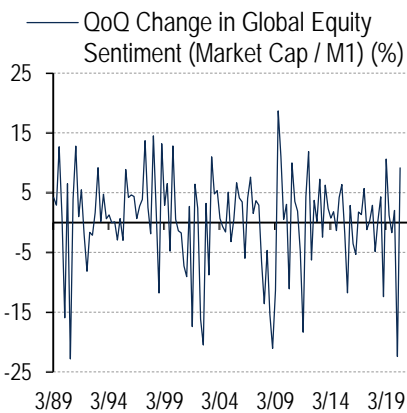
Clearly, it makes sense to forecast earnings growth to divine where markets are headed, especially in the longer-term as growth contributes about 60% of the returns on a 3-year horizon, compared with 35% on a 1-year horizon and only about 25% on a 1-quarter horizon. This is a major focus for the sell-side and the buy-side. However, in our view, investors don't pay sufficient attention to the other two factors – sentiment and liquidity, which contribute about 60%, 50% and 35% of the returns on a 1-quarter, 1-year and 3-year horizon respectively.

**Table 1: Global Equities (1Q-1989 to 1Q-2020): Growth is the most important factor in the long-term, while sentiment and liquidity account for the majority of the short-term returns**

Horizon	Median Returns for Global Equities (%)				Residual
	Sentiment	Liquidity	Growth	Market	
1-quarter	1.32	0.56	0.88	3.29	0.52
1-year	4.29	1.86	4.41	12.58	2.01
3-years	2.47	7.25	16.02	27.63	1.90
<i>Contributions</i>					
1-quarter	40%	17%	27%		16%
1-year	34%	15%	35%		16%
3-years	9%	26%	58%		7%

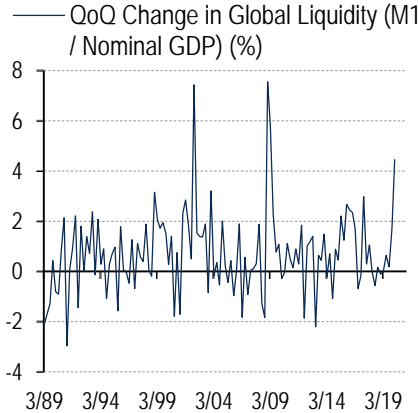
Source: BofA Global Research, IMF, Datastream, Haver

**Figure 1: QoQ Change in Global Sentiment (1Q-1989 to Current)**



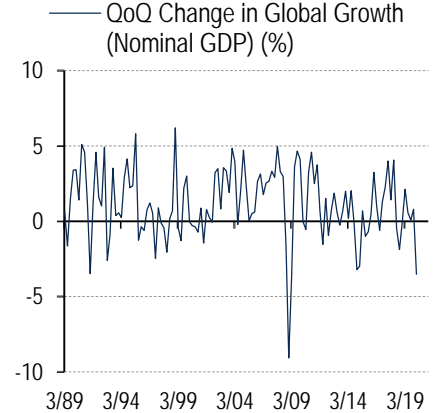
Source: BofA Global Research, Datastream, Haver

**Figure 2: QoQ Change in Global Liquidity (1Q-1989 to 1Q-2020)**



Source: BofA Global Research, IMF, Datastream, Haver

**Figure 3: QoQ Change in Global Growth (1Q-1989 to 1Q-2020)**

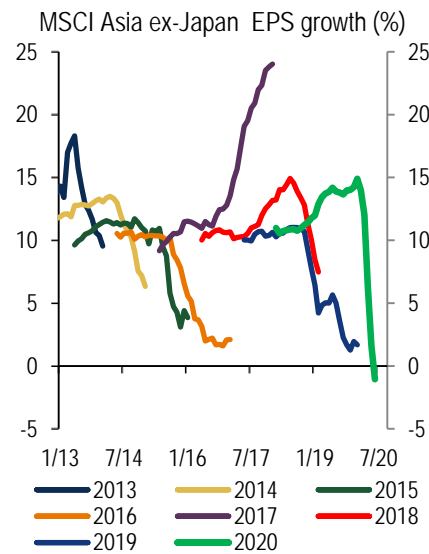


Source: BofA Global Research, IMF, Datastream, Haver



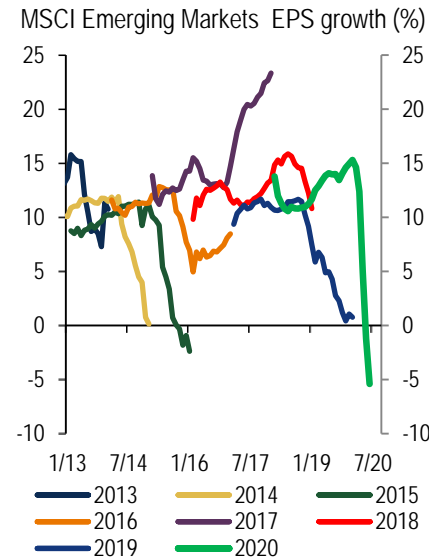
Unfortunately, our work shows that historically consensus earnings growth forecasts in Asia ex-Japan, EMs and DMs have been inaccurate, especially at turning points. Indeed, in Asia ex-Japan the EPS growth forecast has almost always been 10% every January since 2013. Clearly, if an investor has an edge in predicting earnings growth - the most important CONTEMPORANEOUS driver of stock markets - it is a significant competitive advantage.

**Figure 4: Consensus EPS growth forecast: Asia ex-Japan**



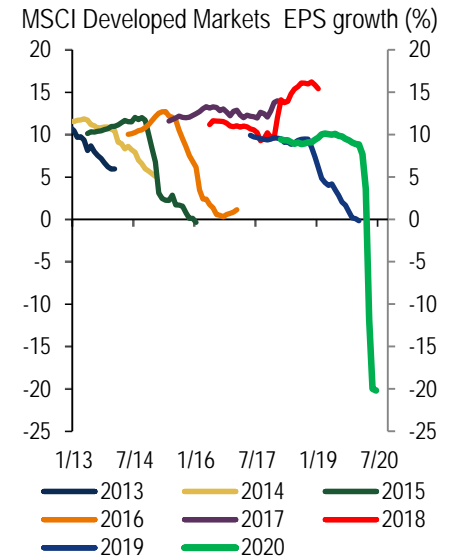
Source: BofA Global Research, MSCI, IBES, FactSet

**Figure 5: Consensus EPS growth forecast: Emerging Markets**



Source: BofA Global Research, MSCI, IBES, FactSet

**Figure 6: Consensus EPS growth forecast: Developed Markets**



Source: BofA Global Research, MSCI, IBES, FactSet

We prefer indicators that have predictive power in ascertaining stock market moves, not contemporaneous indicators like earnings growth that can be more prone to human error. So, what are these? Sentiment / market ownership and free liquidity. When sentiment / market ownership - proxied by the market cap / M1 ratio - is in the lowest, depressed quintile, global equities rally 11.1% in the following year. Conversely, when market ownership is euphoric in the highest quintile, forward global equity returns one year later are only 6.5%, on average. Similar predictive results are obtained for G7 and Asia/EM equity markets.

When free liquidity, the excess growth of M1 over nominal economic growth, is abundant in its top quintile, global equity returns are a juicy 11.2% (and emerging equities, 22.4%) Conversely, when free liquidity is scarce, sucked up by a roaring economy, forward global (and emerging markets) equity returns are 2.6% (and 13.4%).

**Table 2: Global Equities (1Q-1989 to 1Q-2020)**

Quintiles based on QoQ change

Global	Average Next Four-Quarter Returns (%)		
	Sentiment	Liquidity	Growth
Q1	11.1	2.6	12.0
Q2	8.3	15.2	8.6
Q3	6.9	3.1	9.7
Q4	10.9	11.0	4.5
Q5	6.5	11.2	8.4

Source: IMF, Datastream, Haver

**Table 3: G-7 Equities (1Q-1989 to 1Q-2020)**

Quintiles based on QoQ change

G-7	Average Next Four-Quarter Returns (%)		
	Sentiment	Liquidity	Growth
Q1	10.7	7.9	10.4
Q2	6.9	8.6	8.7
Q3	4.5	4.8	6.4
Q4	9.4	7.1	3.0
Q5	7.3	11.4	12.4

Source: IMF, Datastream, Haver



**Table 4: Emerging Market Equities (1Q-1989 to 1Q-2020)**

Quintiles based on QoQ change

Emerging Markets	Average Next Four-Quarter Returns (%)		
	Sentiment	Liquidity	Growth
Q1	17.8	13.4	15.4
Q2	12.1	16.5	15.4
Q3	20.2	18.9	17.1
Q4	14.7	9.2	23.2
Q5	15.7	22.4	5.6

Source: IMF, Datastream, Haver

These two metrics - market ownership / sentiment and free liquidity are even more powerful market predictors when economic/earnings growth is contracting. They get even more potent in recessions.

**Table 6: Global Equities (1Q-1989 to 1Q-2020): When QoQ GDP growth is negative**

Quintiles based on QoQ change

Global	Average Next Four-Quarter Returns (%)		
	Sentiment	Liquidity	Growth
Q1	21.2	-0.6	21.4
Q2	3.4	17.8	5.4
Q3	0.7	-1.6	8.4
Q4	12.8	5.8	10.5
Q5	12.4	20.5	2.5

Source: IMF, Datastream, Haver

**Table 8: Emerging Market Equities (1Q-1989 to 1Q-2020): When QoQ GDP growth is negative**

Quintiles based on QoQ change

Emerging Markets	Average Next Four-Quarter Returns (%)		
	Sentiment	Liquidity	Growth
Q1	30.5	15.8	33.1
Q2	-6.8	-1.2	34.2
Q3	11.9	14.0	-2.1
Q4	20.0	3.7	-2.7
Q5	5.5	38.7	22.7

Source: IMF, Datastream, Haver

We think the current puzzlement at rising markets and deteriorating “fundamentals”, i.e. earnings growth, reflects a standard, recurring error in financial markets: of underestimating the predictive power of initial sentiment / positioning and free liquidity in driving markets, especially at turning points. And, an over-reliance on using earnings growth to explain markets. The misguidedly confident man with an impaired hammer isn't likely to get much carpentry done.

Further, markets tend to lead economic data at turning points. For instance, in the US, at the bottom of the cycle, the market (S&P 500) leads the economic data (US ISM) by 3-months on average, with an average return of 12% between the market bottom and the economy trough. In practice though, analysts need more time to confirm that growth (US ISM) has troughed, and may miss out more of the rally.

**Table 5: Asia ex-Japan Equities (1Q-1989 to 1Q-2020)**

Quintiles based on QoQ change

Asia ex-Japan	Average Next Four-Quarter Returns (%)		
	Sentiment	Liquidity	Growth
Q1	18.7	22.0	13.0
Q2	9.6	19.1	13.8
Q3	15.7	16.1	31.3
Q4	28.5	12.8	7.7
Q5	13.9	19.3	16.4

Source: IMF, Datastream, Haver

**Table 7: G-7 Equities (1Q-1989 to 1Q-2020): When QoQ GDP growth is negative**

Quintiles based on QoQ change

G-7	Average Next Four-Quarter Returns (%)		
	Sentiment	Liquidity	Growth
Q1	18.4	1.2	16.4
Q2	-2.9	12.0	13.7
Q3	10.3	11.8	9.8
Q4	9.0	0.0	-2.4
Q5	13.9	18.7	9.5

Source: IMF, Datastream, Haver

**Table 9: Asia ex-Japan Equities (1Q-1989 to 1Q-2020): When QoQ GDP growth is negative**

Quintiles based on QoQ change

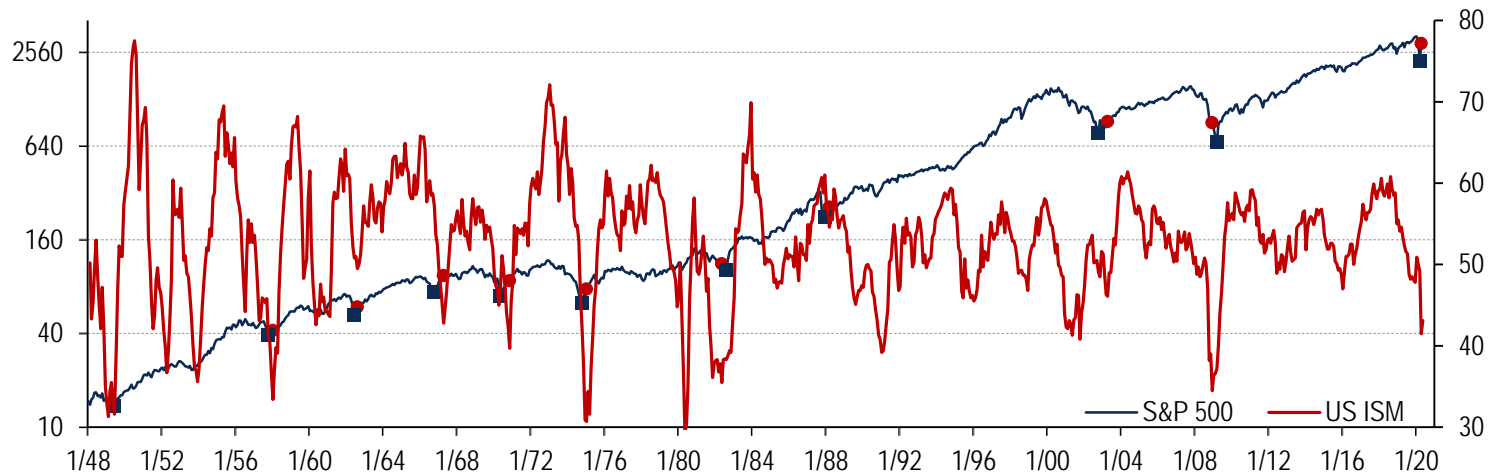
Asia ex-Japan	Average Next Four-Quarter Returns (%)		
	Sentiment	Liquidity	Growth
Q1	28.0	5.2	20.4
Q2	-19.7	-11.9	31.8
Q3	15.9	9.8	-17.4
Q4	6.1	26.7	11.2
Q5	15.2	36.8	3.3

Source: IMF, Datastream, Haver



**Figure 7: The Faster Reaction Function of markets vs. the economy: Markets bottom out about 3-months earlier than the economy on average**

Blue squares denote market bottoms, red circles denote US ISM lows



Source: Bloomberg

**Table 10: US: In the prior 11 episodes, markets rallied 12% on average from its lows till the time the economy bottoms out, and 26% over the next 6-months from the market lows**

S/I	Market Trough Date	PMI Trough Date	Time Difference (months)	Returns between Market Trough and PMI trough	Next 6-month Returns from Market Trough
1	6/13/1949	6/30/1949	0.6	4.5%	22.8%
2	10/22/1957	1/31/1958	3.4	7.0%	9.8%
3	6/26/1962	8/31/1962	2.2	13.0%	20.5%
4	10/7/1966	4/30/1967	6.8	28.4%	22.1%
5	5/26/1970	11/30/1970	6.3	25.8%	22.8%
6	10/3/1974	1/31/1975	4.0	23.6%	30.9%
7	8/12/1982	5/31/1982	-2.4	-8.5%	44.1%
8	12/4/1987	3/31/1988	3.9	15.6%	19.0%
9	10/9/2002	4/30/2003	6.8	18.0%	11.5%
10	3/9/2009	12/31/2008	-2.3	-25.1%	52.7%
11	3/23/2020	4/30/2020	1.3	30.2%	34.2%*
<b>Count</b>			<b>11</b>	<b>11</b>	<b>11</b>
<b>Average</b>			<b>2.8</b>	<b>12%</b>	<b>26%</b>
<b>Median</b>			<b>3.4</b>	<b>16%</b>	<b>23%</b>
<b>Hit Ratio</b>			<b>82%</b>	<b>82%</b>	<b>100%</b>

Source: BofA Global Research, ISM, Bloomberg

Note: \*Price till 11 June, 2020.

**Liquidity/sentiment first, fundamentals later.** Unsurprisingly, at these turning points, market cap swells up by about 25% on average from the market lows over the next 6-months – of this, about 19% can be attributed to sentiment, 15% to liquidity expansion, while growth shaves off 4%. As we stretch to longer horizons, growth becomes more and more significant in explaining stock market returns (see Table 1 on page 2).

**Table 11: US: Sentiment is the most important factor at market turning points, followed by the liquidity – growth, on the other hand, contributes negatively**

S/I	Market Trough Date	Next 6-months returns				Residual
		Market Cap	Sentiment	Liquidity	Growth (PMI)	
1	10/7/1966	19%	17%	32%	-23%	-7%
2	5/26/1970	3%	0%	23%	-16%	-4%
3	10/3/1974	33%	31%	49%	-32%	-15%
4	8/12/1982	33%	25%	-11%	20%	-1%
5	12/4/1987	13%	10%	9%	-6%	0%
6	10/9/2002	11%	8%	13%	-8%	-1%



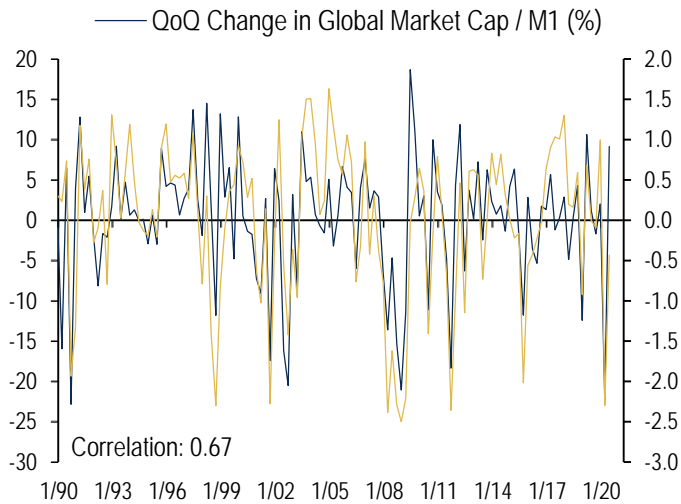
**Table 11: US: Sentiment is the most important factor at market turning points, followed by the liquidity – growth, on the other hand, contributes negatively**

S/I	Market Trough Date	Next 6-months returns				Residual
		Market Cap	Sentiment	Liquidity	Growth (PMI)	
7	3/9/2009	54%	46%	-27%	46%	-10%
8	3/23/2020*	35%	13%	35%	-12%	-2%
<b>Count</b>		<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>
<b>Average</b>		<b>25%</b>	<b>19%</b>	<b>15%</b>	<b>-4%</b>	<b>-5%</b>
<b>Median</b>		<b>26%</b>	<b>15%</b>	<b>18%</b>	<b>-10%</b>	<b>-3%</b>
<b>Hit Ratio</b>		<b>100%</b>	<b>88%</b>	<b>75%</b>	<b>25%</b>	<b>0%</b>

Source: ISM, Bloomberg, Datastream, Haver

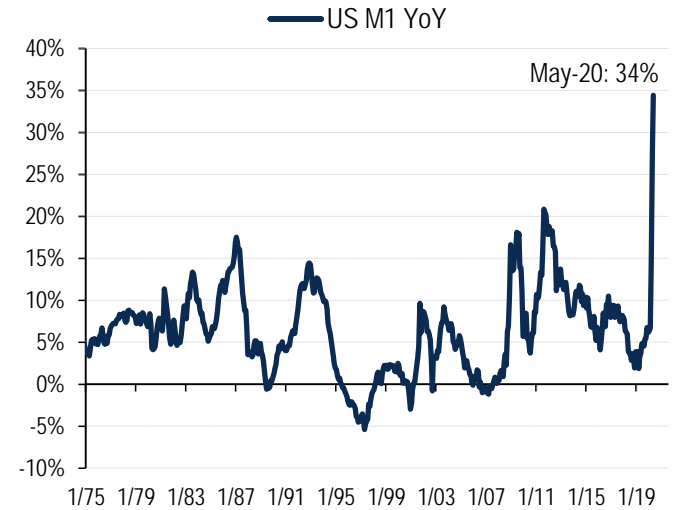
Note: \*Till latest available data - market cap till 11 June, 2020; liquidity and growth (PMI) till May 2020.

**Figure 8: Global Market Cap / M1 and Global Risk-Love: neutral to high**



Source: BofA Global Research, Bloomberg, Datastream, Haver

**Figure 9: US: Liquidity growth is sky-rocketing**



Source: BofA Global Research, Datastream, Haver

**Figure 10: Global free liquidity: Rising sharply...**



Source: BofA Global Research, FactSet

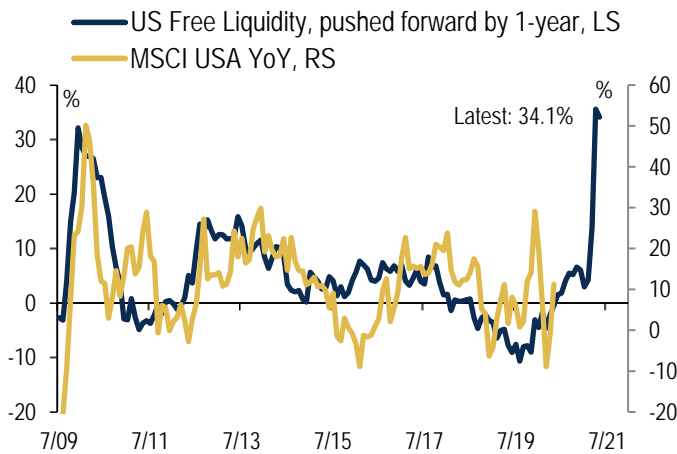
**Table 12: ...post-2008, equity markets perform well in such conditions**

MSCI AC World next 1-year returns (since GFC)	G7 + China Free Liquidity (%)			
	Below 0	Between 0 and 5	Between 5 and 10	Above 10
Time Spent	11%	40%	37%	11%
Hit Ratio	53%	56%	84%	100%
Average 12-month Returns	1.7%	2.8%	10.5%	23.4%
Median 12-month Returns	0.5%	2.6%	12.7%	16.4%
Base 12-month Returns	7.9%			
Base Hit Ratio	71%			

Source: BofA Global Research, FactSet. **Note:** Free Liquidity for individual countries is defined as the M1 YoY growth minus nominal GDP YoY growth (CPI YoY growth plus PMI-rebased to 50). For UK, M0 is used instead of M1. G7 + China free liquidity is calculated as the GDP-weighted average of individual country free liquidities.

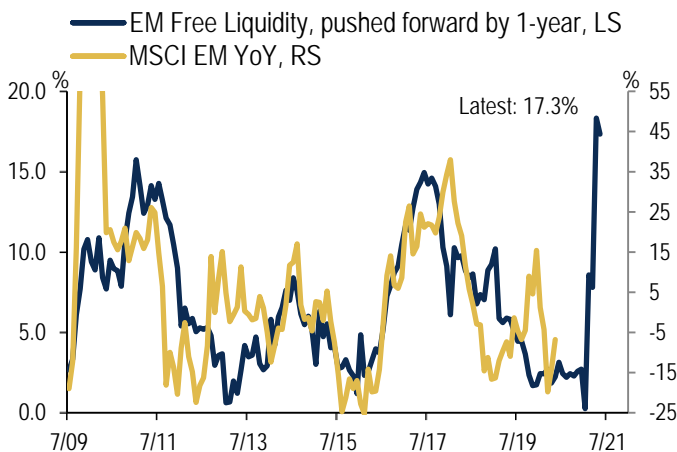


**Figure 11: US free liquidity: Rising sharply...**



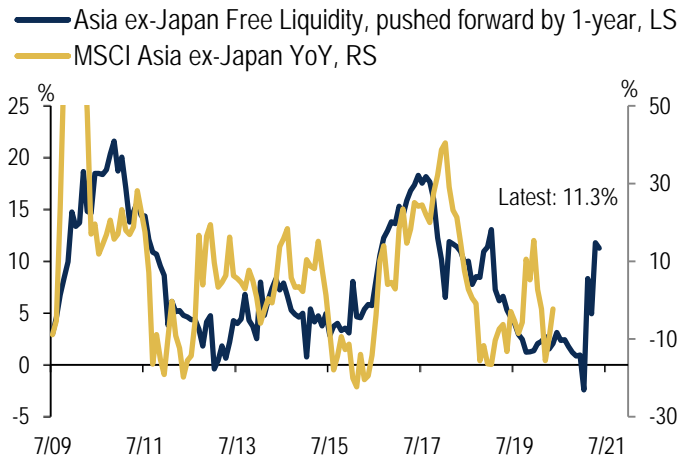
Source: BofA Global Research, FactSet

**Figure 12: Emerging Markets free liquidity: Rising sharply...**



Source: BofA Global Research, FactSet

**Figure 13: Asia ex-Japan free liquidity: Rising...**



Source: BofA Global Research, FactSet

**Table 13: ...post-2008, equity markets perform well in such conditions**

MSCI USA next 1-year returns (since GFC)	US Free Liquidity (%)			
	Below 0	Between 0 and 5	Between 5 and 10	Above 10
Time Spent	29%	31%	18%	23%
Hit Ratio	82%	85%	78%	100%
Average 12-month Returns	7.7%	9.8%	10.4%	20.1%
Median 12-month Returns	6.8%	11.1%	12.6%	17.9%
Base 12-month Returns	11.7%			
Base Hit Ratio	86%			

Source: BofA Global Research, FactSet. **Note:** Free Liquidity for individual countries is defined as the M1 YoY growth minus nominal GDP YoY growth (CPI YoY growth plus PMI-rebased to 50).

**Table 14: ...post-2008, equity markets perform well in such conditions**

MSCI EM next 1-year returns (since GFC)	Emerging Markets Free Liquidity (%)			
	Below 0	Between 0 and 5	Between 5 and 10	Above 10
Time Spent	0%	35%	41%	24%
Hit Ratio	NA	30%	52%	87%
Average 12-month Returns	NA	-5.7%	6.7%	20.9%
Median 12-month Returns	NA	-4.4%	1.8%	19.9%
Base 12-month Returns	5.7%			
Base Hit Ratio	53%			

Source: BofA Global Research, FactSet. **Note:** Free Liquidity for individual countries is defined as the M1 YoY growth minus nominal GDP YoY growth (CPI YoY growth plus PMI-rebased to 50). Emerging Market free liquidity is calculated as the GDP-weighted average of individual country free liquidities.

**Table 15: ...post-2008, equity markets perform well in such conditions**

MSCI Asia ex-Japan next 1-year returns (since GFC)	Asia ex-Japan Free Liquidity (%)			
	Below 0	Between 0 and 5	Between 5 and 10	Above 10
Time Spent	1%	38%	24%	37%
Hit Ratio	100%	52%	44%	90%
Average 12-month Returns	9.6%	-0.8%	2.7%	20.1%
Median 12-month Returns	9.6%	1.0%	-0.8%	18.3%
Base 12-month Returns	7.8%			
Base Hit Ratio	64%			

Source: BofA Global Research, FactSet. **Note:** Free Liquidity for individual countries is defined as the M1 YoY growth minus nominal GDP YoY growth (CPI YoY growth plus PMI-rebased to 50). Asia ex-Japan free liquidity is calculated as the GDP-weighted average of individual country free liquidities.





**Table 16: Abundant liquidity everywhere - investors should take benefit of any pullback (i.e. any risk-off sentiment) to participate in the bull market**

Country / Region	Sentiment	Liquidity
	Lower is better for forward returns	Higher is better for forward returns
<i>Latest Data</i>	<i>April/May</i>	<i>1Q-2020</i>
China	Q3	Q5
Singapore	Q3	Q5
Hong Kong	Q3	Q5
France	Q3	Q5
Philippines	Q3	Q5
US	Q3	Q5
Israel	Q3	Q5
Spain	Q4	Q5
Belgium	Q4	Q5
Turkey	Q4	Q5
Portugal	Q4	Q5
Korea	Q4	Q5
Italy	Q4	Q5
India	Q4	Q5
Switzerland	Q4	Q4
UK	Q4	Q5
Japan	Q4	Q5
Austria	Q5	Q5
Taiwan	Q4	Q5
New Zealand	Q5	Q5
Thailand	Q5	Q5
Finland	Q5	Q5
Canada	Q5	Q5
Malaysia	Q5	Q4
Germany	Q5	Q4
Chile	Q4	Q3
Netherlands	Q5	Q4
South Africa	Q5	Q4
Denmark	Q5	Q4
Norway	Q5	Q4
Australia	Q5	Q4
Russia	Q5	Q3
Poland	Q5	Q2
Ireland	Q5	Q3
Indonesia	Q5	Q2
Brazil	Q5	Q1
Mexico	Q5	Q2
Sweden	Q5	Q1
<b>Asia ex-Japan</b>	Q4	Q5
<b>Emerging Markets</b>	Q4	Q5
<b>Global</b>	Q5	Q5

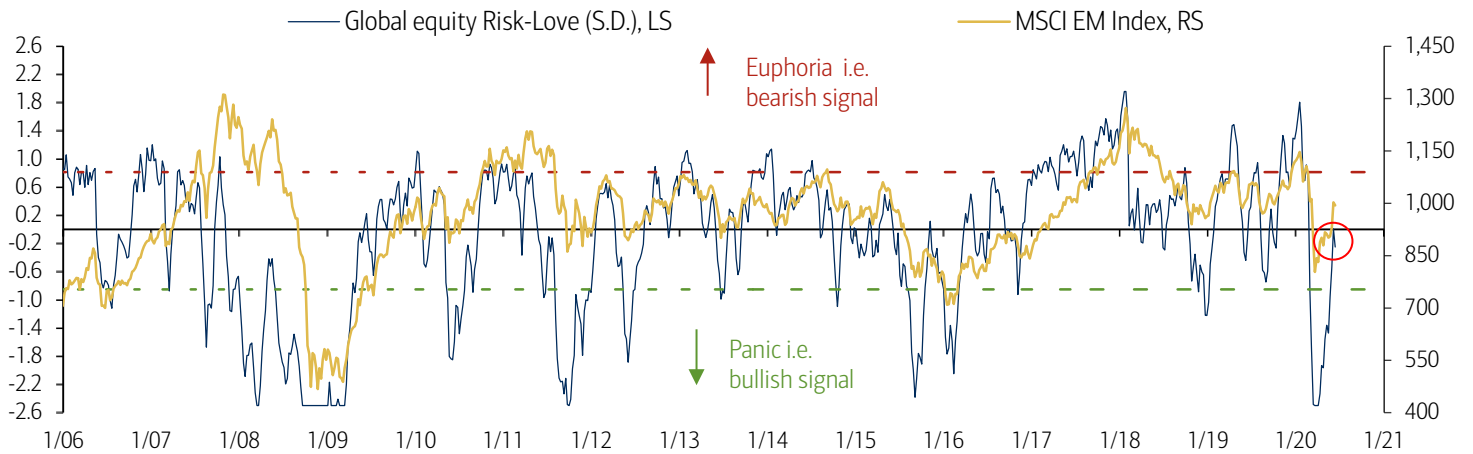
Source: BofA Global Research, IMF, Datastream, Haver

We would urge investors to focus more on predictive market tools like sentiment / market ownership / Risk-Love and free liquidity, which much less forecasting skills. And to recognize the fallibility of relying on “fundamentals”, i.e. economic/earnings growth forecasts, alone to determine equity market movements..





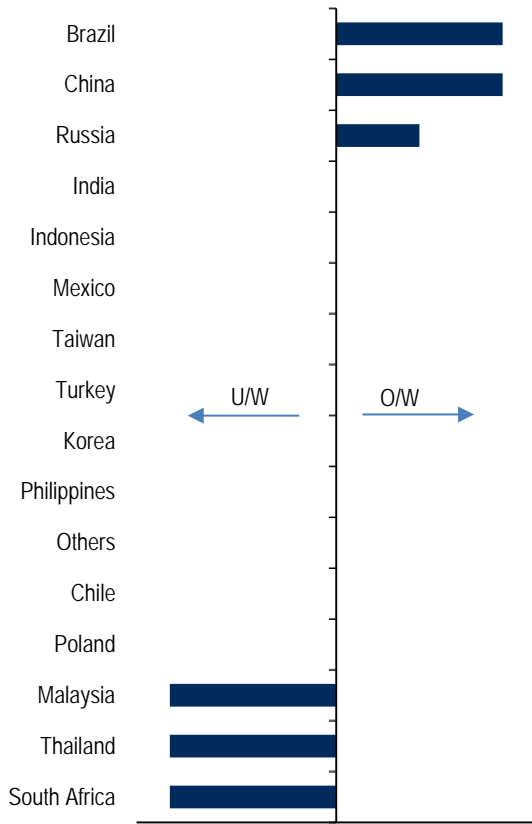
**Figure 14: Global Risk-Love has recovered from peak panic in March to low neutral levels (33<sup>rd</sup> percentile of its history since 1987) now**



Source: BofA Global Research, Bloomberg. **Disclaimer:** 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.

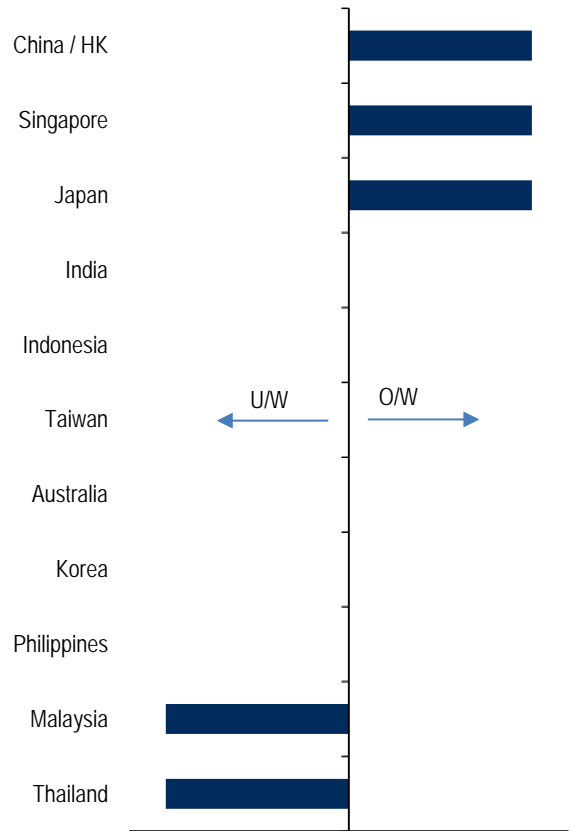
While, market ownership / Risk-Love / positioning is not that attractive anymore, after a sharp rally since late March, free liquidity is abundant thanks to easy central banks. And powerful breadth thrusts from a broadening market rally have been triggered. This remains a positive mix. In our view, investors should resist the urge to fault poor “fundamentals”, but rather take benefit of any pullback and participate in the bull market. When sentiment is euphoric and / or free liquidity evaporates, and the relative value of equities versus cash / bonds deteriorates, we will re-examine our bullish stance.

**Figure 15: Emerging markets country recommendations**



Source: BofA Global Research

**Figure 16: Asia Pacific country recommendations**



Source: BofA Global Research, MSCI, FactSet



Table 17: Market intelligence table as of 12 June 2020

12-Jun-2020	Mkt cap* (US\$bn)	USD perf (%)			12m forward								EPS growth^ (%)		
		2019	YTD	1m	PE (x)	% dev 10Y avg	PB (x)	% dev 10Y avg	PB at 2008-09-lows	Div yld (%)*	% dev 10Y avg	ROE (%)	10Y avg	CY2020	CY2021
North America (701)	28,083	28.8	-5.7	6.0	21.5	39.1	3.2	30.4	1.4	2.0	8.0	14.7	15.6	-21.3	28.4
Canada (85)	1,290	24.5	-15.4	4.8	17.3	20.9	1.5	-8.4	1.1	3.8	-24.8	8.9	11.8	-34.9	39.0
US (616)	26,793	29.1	-5.2	6.1	21.8	40.2	3.3	32.6	1.4	1.9	9.4	15.2	16.0	-20.3	27.8
Europe (438)	8,048	20.0	-15.3	7.2	16.6	26.6	1.5	-3.3	1.0	3.5	9.1	9.3	12.3	-27.7	31.6
Austria (6)	23	10.9	-28.1	8.9	11.6	13.7	0.7	-22.9	0.5	4.4	-15.8	6.3	9.4	-37.5	46.5
Belgium (13)	117	17.7	-25.4	7.6	16.6	6.0	1.2	-31.5	0.6	3.2	5.4	7.4	11.4	-33.3	21.6
Denmark (18)	302	26.1	6.8	6.8	27.3	58.8	4.1	40.4	1.2	1.7	26.0	15.0	16.8	-17.8	36.7
Finland (11)	131	6.5	-5.7	8.5	17.7	15.1	1.9	2.1	1.2	3.9	12.9	10.8	12.2	-13.5	19.4
France (78)	1,403	23.0	-18.2	11.4	16.5	28.5	1.3	-2.0	0.9	3.4	10.4	8.0	10.6	-31.8	38.9
Germany (63)	1,189	17.8	-11.0	13.0	15.8	30.7	1.3	-9.5	0.9	3.1	7.6	8.4	12.1	-24.3	43.9
Ireland (5)	83	35.1	-13.6	11.1	19.9	-3.4	1.8	12.5	0.5	1.7	26.2	8.8	8.9	-19.3	21.3
Italy (27)	293	23.1	-20.8	12.3	15.0	32.6	1.1	13.1	0.6	4.8	-4.9	7.3	8.7	-46.0	47.5
Netherlands (22)	544	28.8	-5.5	8.8	19.6	41.9	2.1	19.0	1.1	2.4	24.9	10.8	13.0	-8.9	18.0
Norway (9)	71	6.7	-21.4	9.6	17.1	42.1	1.5	2.7	0.9	4.6	5.1	8.9	12.5	-39.6	48.7
Portugal (3)	22	19.3	-6.1	7.6	19.1	32.6	2.0	30.9	1.2	4.9	-4.8	10.3	10.5	3.7	24.4
Spain (20)	316	9.1	-23.2	11.8	13.8	17.3	0.9	-20.6	1.0	4.5	16.5	6.8	10.3	-33.7	28.2
Sweden (36)	385	17.8	-9.5	6.9	17.9	22.4	1.9	-6.5	1.1	3.3	19.6	10.4	13.7	-29.4	32.0
Switzerland (40)	1,315	29.5	-6.5	1.1	18.3	18.5	2.6	12.0	1.4	3.2	7.5	14.2	15.1	-7.7	15.7
UK (87)	1,854	15.2	-24.1	3.3	14.7	17.1	1.4	-17.4	1.1	4.5	-5.2	9.3	13.4	-35.6	32.7
Israel (12)	82.0	8.5	-2.1	5.0	11.6	16.8	1.3	-3.4	1.0	1.1	63.4	11.1	13.6	-7.7	21.0
Asia Pac (1580)	9,376	16.3	-8.0	7.1	15.2	19.7	1.3	0.3	0.9	2.7	8.4	8.7	10.5	1.5	22.4
Japan (321)	3,375	17.1	-6.9	6.8	15.8	18.0	1.1	-0.1	0.8	2.6	-10.0	7.2	8.5	0.2	20.6
Australia (64)	869	17.1	-16.4	13.8	18.7	30.6	1.7	-3.2	1.3	3.5	26.6	9.3	12.7	-9.9	5.8
New Zealand (7)	39	34.7	-3.5	2.8	37.6	97.2	3.8	80.4	1.3	2.1	55.6	10.0	11.0	-0.9	9.3
Asia ex-Japan (1188)	5,093	15.4	-7.2	6.2	14.3	19.8	1.4	-1.4	1.0	2.6	8.3	9.9	12.1	-1.1	24.0
China (716)	2,292	20.9	-0.5	4.2	13.5	27.5	1.6	10.8	1.1	2.0	32.5	12.0	13.9	1.1	19.9
Hong Kong (41)	449	7.0	-11.8	1.6	14.8	-0.4	1.0	-19.2	0.8	3.6	-12.4	6.7	8.2	-16.5	26.0
India (86)	450	6.1	-19.9	6.8	19.9	23.7	2.4	-4.7	1.4	1.8	-8.8	11.8	15.4	-3.3	32.0
Indonesia (22)	85	6.7	-26.6	14.8	13.9	-2.6	1.9	-30.7	1.4	3.5	-23.7	13.6	19.2	-12.3	19.3
Korea (107)	676	10.4	-7.2	13.7	11.6	23.3	0.9	-15.9	0.9	2.5	-39.3	7.5	11.1	18.1	42.6
Malaysia (39)	106	-5.2	-7.4	13.8	18.7	23.2	1.5	-17.2	1.3	3.2	4.6	7.8	11.6	-16.8	18.1
Pakistan (3)	1	3.3	-31.0	1.4	4.7	-38.1	0.7	-53.2	0.8	10.7	-45.9	14.8	19.7	24.6	6.2
Philippines (21)	50	9.2	-16.4	14.5	15.6	-8.0	1.5	-36.3	1.3	2.0	10.1	9.7	14.0	-17.7	24.1
Singapore (22)	152	10.0	-20.1	5.2	13.9	6.7	1.0	-22.7	0.9	4.9	-22.5	7.1	9.8	-22.9	18.3
Taiwan (88)	696	31.5	-4.3	6.2	16.0	18.6	1.8	7.1	1.0	4.0	1.8	11.3	12.5	3.0	15.8
Thailand (43)	135	6.6	-16.9	9.3	18.4	40.8	1.6	-11.5	0.9	2.9	16.7	8.9	14.5	-24.5	23.6
EMEA (160)	755	11.2	-21.4	10.0	10.5	15.6	1.1	-4.3	0.7	4.9	-18.7	10.5	12.8	-18.7	27.6
Czech Republic (3)	6	-0.1	-23.1	12.8	11.8	-4.1	1.0	-29.2	1.3	7.2	-13.6	8.5	11.9	-13.7	3.0
Egypt (3)	7	38.9	-20.3	-0.7	8.0	-14.5	1.6	-3.0	1.1	3.6	-3.9	19.6	17.0	-3.9	21.4
Greece (4)	8	39.8	-38.1	11.3	13.1	5.6	2.3	71.7	0.7	6.1	-58.0	17.5	11.0	-22.1	36.5
Hungary (3)	14	16.3	-25.5	15.7	9.1	-4.5	1.0	-7.0	0.6	3.2	12.9	11.0	11.3	-29.2	31.6
Poland (15)	42	-8.2	-21.9	15.9	11.4	-1.7	0.9	-24.5	0.8	3.7	9.7	8.0	10.5	-13.6	19.2
Qatar (11)	49	-4.5	-12.6	3.7	13.3	6.1	1.7	-6.0	na	4.0	8.1	12.5	14.0	-11.7	16.1
Russia (22)	195	41.0	-22.2	9.3	7.3	36.5	0.7	5.3	0.5	8.2	-50.0	9.0	11.7	-36.7	35.6
Saudi Arabia (34)	157	3.5	-13.8	10.4	18.8	na	1.7	na	na	4.2	na	9.2	na	-6.5	16.0
South Africa (41)	217	7.4	-25.4	10.7	11.4	-14.3	1.7	-18.5	0.9	3.3	8.4	14.6	15.5	9.4	25.4
Turkey (15)	25	7.3	-21.1	12.4	6.4	-25.3	0.8	-37.3	0.7	4.9	-25.3	12.2	14.6	-3.7	44.2
UAE (9)	33	-0.8	-19.3	7.2	10.3	-6.3	0.9	-34.6	na	4.7	-1.5	8.8	12.6	-31.5	23.5
Latin America (107)	488	13.7	-32.8	24.2	14.2	15.6	1.5	-4.9	1.2	3.7	-7.5	10.7	13.1	-31.8	57.9
Argentina (3)	7	-22.6	-14.9	17.0	na	na	1.7	-10.0	0.6	0.6	82.5	na	22.0	na	na
Brazil (56)	314	22.1	-36.1	35.0	14.9	37.3	1.6	13.1	1.1	3.8	5.8	10.9	13.3	-42.2	78.7
Chile (16)	35	-18.6	-21.9	8.6	13.6	-11.7	1.1	-36.4	1.1	3.3	0.5	7.8	10.8	-9.1	22.7
Colombia (5)	11	25.9	-44.6	11.0	8.0	-41.2	1.0	-31.7	na	4.7	-45.6	12.8	11.0	-14.6	24.0
Mexico (24)	104	8.0	-26.3	8.0	13.9	-13.2	1.7	-25.8	1.5	3.5	-36.7	12.2	14.3	-8.4	29.5
Peru (3)	16	1.1	-27.0	10.5	14.3	13.8	1.5	-32.5	0.5	3.7	-39.9	10.6	18.0	-28.5	45.4
Developed Markets (1606)	41,097	25.2	-8.2	6.4	19.6	35.0	2.3	17.3	1.2	2.4	12.0	11.5	13.2	-20.2	27.9
Emerging Markets (1392)	5,735	15.4	-11.5	8.5	13.6	22.1	1.4	0.8	1.0	2.9	6.4	10.6	12.9	-5.4	26.9
World (2998)	46,831	24.0	-8.6	6.7	18.7	32.7	2.1	14.3	1.1	2.5	11.1	11.3	13.2	-18.1	27.8

Source: BofA Global Research, 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.



Table 18: Emerging Markets Market intelligence table as of 12 June 2020 by Industry

Sector (# Co)	12-Jun-2020 Market cap* (US\$bn)	US\$ perf (%)			12m forward								EPS growth^ (%)	
		2019	YTD	1m	PE (x)	% dev 10Y avg	PB (x)	% dev 10Y avg	Div yld (%)#	% dev 10Y avg	ROE (%)	10Y avg	2020E	2021E
<b>Emerging Markets (1392)</b>	<b>5,735</b>	<b>15.4</b>	<b>-11.5</b>	<b>8.5</b>	<b>13.6</b>	<b>22.1</b>	<b>1.4</b>	<b>0.8</b>	<b>2.9</b>	<b>6.4</b>	<b>10.6</b>	<b>12.9</b>	<b>-5.4</b>	<b>26.9</b>
Autos (40)	111	-0.6	-19.5	13.8	12.1	32.1	0.8	-35.9	2.6	-33.4	6.9	14.5	-7.2	47.1
Cons Durables (30)	71	28.0	-10.0	10.7	19.6	51.9	2.5	43.8	1.8	36.3	12.9	13.6	8.3	24.8
Cons Svc (25)	95	45.2	-5.7	8.7	36.0	102.0	3.6	57.9	0.9	54.8	9.9	12.9	-30.2	90.2
Media & Entertainment (45)	506	14.9	13.7	5.5	26.6	NA	4.2	NA	0.4	NA	15.7	NA	17.1	25.7
Retailing (39)	716	47.7	5.8	11.9	27.2	NA	3.9	NA	0.2	NA	14.4	NA	5.3	41.1
Energy (65)	349	14.9	-26.3	9.9	13.0	66.9	0.7	-10.6	4.3	-8.9	5.6	10.6	-59.8	98.9
Capital Goods (118)	170	-2.2	-14.1	9.1	9.9	-15.4	0.9	-30.4	2.7	-24.2	8.7	10.7	10.4	17.3
Comm Svc (9)	16	28.4	6.3	-2.9	16.0	-3.7	2.6	-15.5	1.8	16.0	16.3	18.5	16.4	21.2
Transportation (57)	94	16.5	-19.3	11.7	22.7	45.6	1.6	-0.6	2.2	10.2	7.1	10.4	-53.2	122.0
Materials (143)	397	2.3	-14.9	9.6	12.4	10.6	1.2	-0.9	4.3	-23.0	10.0	11.5	-4.0	47.2
Real Estate (71)	152	18.7	-22.0	5.6	6.4	-30.0	0.9	-17.0	5.7	-36.8	14.2	12.2	7.3	19.0
Banks (130)	814	7.1	-25.8	9.1	7.5	-10.6	0.8	-31.5	5.0	-22.2	10.7	13.9	-7.3	10.7
Div Financials (76)	120	15.5	-23.4	14.9	10.4	-8.7	1.0	-15.9	3.6	-5.8	10.0	10.8	6.5	11.5
Insurance (41)	200	12.7	-23.1	3.5	8.9	-28.7	1.1	-31.9	4.1	-43.4	12.0	12.5	-9.1	15.7
Semis (33)	388	53.5	-3.0	7.3	16.8	46.8	2.8	38.9	3.3	-11.0	16.5	17.6	29.4	23.9
Software (35)	105	10.6	-5.9	4.5	22.3	NA	4.0	NA	2.3	NA	17.7	NA	-2.3	17.8
Tech Hard/Equip (89)	458	33.3	-5.8	8.7	12.9	15.9	1.3	-4.5	3.1	1.3	10.0	12.4	16.2	41.6
Food/Staples Retail (27)	89	8.5	-11.9	6.4	22.9	8.0	3.0	1.1	2.3	-4.5	13.2	14.1	3.1	14.6
Food Beverage (87)	214	10.8	-10.5	7.4	20.1	5.3	2.8	-1.2	2.5	4.0	14.1	15.1	13.7	14.4
Household Products (19)	70	3.6	-7.3	4.3	33.0	21.6	6.5	1.4	1.7	12.3	19.8	23.9	15.2	17.5
Health Care Equip/Svc (32)	73	3.5	22.9	19.4	36.8	77.3	4.4	50.5	1.0	52.3	12.0	14.3	18.2	24.9
Pharma & Biotech (78)	165	1.9	18.5	12.8	35.2	60.3	3.9	19.6	0.7	30.0	11.2	15.1	22.5	23.3
Telecom (39)	228	1.2	-12.9	1.6	14.4	4.7	1.6	-17.8	4.4	-2.0	10.9	14.1	1.1	14.1
Utilities (64)	136	5.0	-16.9	7.3	10.7	-1.2	1.0	-3.9	4.1	-5.2	9.2	9.5	11.1	15.0

Source: BofA Global Research, MSCI, IBES estimates. Note: #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.

Table 19: Asia ex-Japan Market intelligence table as of 12 June 2020 by Industry

Sector (# Co)	12-Jun-2020 Market cap* (US\$bn)	US\$ perf (%)			12m forward								EPS growth^ (%)	
		2019	YTD	1m	PE (x)	% dev 10Y avg	PB (x)	% dev 10Y avg	Div yld (%)#	% dev 10Y avg	ROE (%)	10Y avg	2020E	2021E
<b>Asia ex-Japan (1188)</b>	<b>5,093</b>	<b>15.4</b>	<b>-7.2</b>	<b>6.2</b>	<b>14.3</b>	<b>19.8</b>	<b>1.4</b>	<b>-1.4</b>	<b>2.6</b>	<b>8.3</b>	<b>9.9</b>	<b>12.1</b>	<b>-1.1</b>	<b>24.0</b>
Autos (39)	110	-0.8	-19.5	13.7	12.1	32.9	0.8	-35.9	2.6	-34.0	6.9	14.5	-7.2	47.2
Cons Durables (29)	69	30.8	-10.0	9.8	19.2	39.0	2.5	29.8	1.8	36.9	13.0	13.9	12.0	22.2
Cons Svc (28)	128	32.4	-5.5	6.6	38.4	98.5	3.8	35.1	1.3	38.5	9.9	14.8	-63.8	212.9
Media & Entertainment (40)	491	13.7	14.7	5.2	27.1	NA	4.3	NA	0.4	NA	16.0	NA	15.1	27.2
Retailing (28)	601	53.7	9.0	12.5	28.0	NA	4.1	NA	0.1	NA	14.7	NA	5.3	42.4
Energy (41)	168	4.8	-19.4	5.4	14.7	38.4	0.9	-23.7	3.0	13.2	6.4	11.9	-43.4	68.2
Capital Goods (118)	209	-2.7	-14.2	5.7	9.4	-17.6	0.7	-34.5	3.1	-26.8	7.9	9.9	3.7	15.8
Comm Svc (9)	16	28.4	6.3	-2.9	16.0	-1.9	2.6	0.6	1.8	10.9	16.3	16.0	16.4	21.2
Transportation (50)	81	9.8	-15.0	4.7	28.1	76.1	1.4	9.3	2.2	24.4	5.1	8.4	-63.6	216.3
Materials (100)	194	-0.3	-12.4	7.1	14.6	23.5	1.0	-16.2	3.2	-5.7	6.9	10.4	-10.8	30.7
Real Estate (81)	260	13.1	-17.4	2.3	8.0	-28.5	0.7	-16.8	5.1	-42.5	8.5	7.4	2.6	16.5
Banks (85)	604	6.8	-19.7	5.5	7.3	-13.0	0.7	-33.5	4.8	-18.6	9.9	12.8	-5.3	8.4
Div Financials (68)	123	12.5	-9.2	8.1	13.6	-0.4	1.4	-13.6	3.2	-3.7	10.0	11.6	1.8	15.1
Insurance (30)	280	19.8	-16.0	1.7	10.9	-22.3	1.2	-27.2	3.1	-52.4	11.0	11.7	-9.4	21.6
Semis (34)	391	53.4	-3.3	7.2	16.8	45.4	2.8	37.9	3.3	-10.6	16.4	17.6	29.7	24.1
Software (33)	99	10.8	-6.0	3.5	21.9	NA	4.0	NA	2.5	NA	18.1	NA	-0.8	17.3
Tech Hard/Equip (90)	461	33.1	-5.9	8.6	12.9	16.2	1.3	-4.3	3.1	0.8	10.1	12.4	15.9	41.4
Food/Staples Retail (13)	36	-2.0	-0.8	-0.2	26.3	26.7	2.8	19.0	1.9	5.1	10.8	11.5	7.3	13.3
Food Beverage (74)	178	10.1	-2.5	5.4	19.9	9.8	2.8	17.4	2.5	-1.1	14.2	13.5	12.7	11.0
Household Products (17)	62	0.2	-5.1	1.8	33.2	16.4	6.6	-8.2	1.7	-1.1	19.8	25.4	11.1	16.6
Health Care Equip/Svc (29)	63	-0.1	40.5	17.5	37.2	55.1	4.5	60.8	0.9	26.7	12.2	11.5	19.7	23.9
Pharma & Biotech (76)	162	2.7	19.8	12.3	49.6	102.6	4.5	22.0	0.6	35.5	9.0	15.4	32.0	36.3
Telecom (27)	170	0.2	-12.4	-2.5	15.3	4.5	1.4	-21.9	4.4	-5.0	9.1	12.4	-1.2	10.0
Utilities (49)	138	-0.4	-13.1	-0.6	12.7	-1.6	1.2	-12.6	3.8	-18.7	9.2	10.4	20.7	12.4

Source: BofA Global Research, MSCI, IBES estimates. Note: #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.



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