MARKET COMMENTARY

Ashmore

Media! What is it good for?

By Jan Dehn

Investors in Emerging Markets (EM) often get their news from proprietary research, conventional media and social media. There is no substitute for proper propriety research, but journalists can add value by unearthing valuable insights about far-flung EM investment grounds at a lower cost than the price of an airline ticket.

Unfortunately, the unique capacity of media organisations to reach very large numbers of investors and shape sentiment with their choices of stories and style of coverage means that the media can also exploit its audience by sparking exuberance or panic and by adding fuel to fire, thereby increasing demand for media.

Given this conflict, who knows if media coverage of EM actually adds value to investors?

To try to answer this question, we analyse two datasets on the volume of EM mentions in conventional and social media outlets to quantify the investment implications of investing directly in response to media frenzies and troughs.¹

We find that investors make positive alpha if they buy EM bonds and stocks during frenzies in EM coverage in the conventional media. Such frenzies revolve around bad news, so it is likely that the media over-hypes bad news so much that many investors are wrongly drawn into selling, thereby creating value.

Does media activity add value from an investment perspective in EM?

It is also possible that media and investors wrongly extrapolate from bad news in a few countries to the whole universe of EM opportunities, thus selling the wrong securities and creating value that way.

We do not find that investors make alpha by buying during lulls in media coverage. However, they should not liquidate positions in lulls either, because the opportunity cost of leaving the EM bond market is too high, given yields.

We only find weak and less intuitive linkages between investment returns and social media activity. More data may be required to get a clearer picture of how social media and investment in EM interact, if at all.

EM media coverage

Fig 1: Volume of EM media mentions per month



Source: Ashmore, Dow Jones Factiva, Crimson Hexagon.

¹ See the Appendix for the definition of frenzies and troughs. We define media frenzies as observations that are 30% or more above the 12 month moving average volume of EM media mentions, while troughs are defined as months wherein the number of EM mentions drops 15% or more below the 12 months moving average of EM mentions.

Mentions of EM

in the media appears

uncorrelated with

conventional EM

risk indicators

Figure 1 shows the volume of EM mentions in two media sources:

- a) Dow Jones Factiva counts the number of media mentions across more than 33,000 conventional media outlets and compiles them into a data set with 244 monthly observations ranging from January 1999 to April 2019;
- b) Crimson Hexagon is a social listing tool, which scans for EM mentions across publicly available social media sites, such as Twitter, Reddit and most online blogs and forums. The Crimson Hexagon data set, which excludes private social media pages, has 123 monthly observations from February 2009 to April 2019.

The Appendix contains detailed analysis of each data set and the methodology used to identify media frenzies and troughs.

EM media mentions contain independent information

Why even look at media activity? The volume of EM media coverage appears to be independent of and distinct from traditional EM risk indicators, such as sovereign debt spreads. This can be seen from Figure 2, which shows correlations between EM media mentions and EM sovereign debt spreads. Correlations are very low.² Granted, correlations are higher between spreads and mentions for conventional media than for social media, but this is due to spurious trends.³ When the trends are removed ('1st difference' in Figure 1) correlations collapse. In other words, EM mentions in social and conventional media potentially offer new information of value to investors.

Fig 2: Coefficient of variation and correlations with EM spreads

| | Conventional media (Dow Jones Factiva) | Social media (Crimson Hexagon) | | | | | |
|--------------------------------|---|-----------------------------------|--|--|--|--|--|
| EMBI GD spread correlation in: | | | | | | | |
| Levels | -53% | -7 % | | | | | |
| 1st difference | -7 % | 10% | | | | | |
| Other descriptive statistics | | | | | | | |
| Maximum | 21,750 | 138,818 | | | | | |
| Minimum | 1,651 | 7,198 | | | | | |
| Median | 7,369 | 49,409 | | | | | |
| Average 7,535 50,569 | | | | | | | |
| Standard deviation | 4,378 | 19,090 | | | | | |
| Number of observations | 244 | 123 | | | | | |

Source: Ashmore, Bloomberg, JP Morgan, Dow Jones Factiva, Crimson Hexagon.

Methodology

To determine the value of investing in response to EM media frenzies and troughs, we contrast two strategies. Suppose we have two identical pension funds, which each receive a Dollar a day in contributions. One of the pension funds invests the contributions every day, regardless of what the media has to say about EM. This pension fund ends up buying expensively on some days and cheaply on others, but in the end just reaps the index return. The other pension fund pays attention to the media. It sits on its daily contributions until the media attention either surges into a frenzy or subsides into a trough. At these times, the pension fund invests the accumulated contributions in full. This pension fund's return is the average of the 12 month returns following each media frenzy/trough across the full range of the dataset.⁴

The difference in the two returns is the alpha (positive or negative) arising from investing in response to media frenzies and troughs relative to ignoring the media. We conduct this analysis for sovereign Dollar-denominated bonds, corporate Dollar-denominated bonds, local currency government bonds and stocks.⁵

² We measure EM sovereign debt spreads using the JP Morgan EMBI GD, which is by far the most commonly used benchmark index for EM Dollar-denominated sovereign bonds.

³ Media mentions generally rise over time, while spreads have narrowed over time.

⁴ Notice that the money invested in the two strategies is the same; the only difference is the timing of the investment.

⁵ Each strategy is represented by its respective benchmarks index, namely EMBI GD, CEMBI BD, GBI EM GD and MSCI EM.

How to make money from media activity

Our main result is that investors can significantly increase alpha versus benchmark returns by investing across all EM asset classes specifically in response to media frenzies in the conventional media. The average annual alpha is 2.7% for external debt, 3.3% for corporate debt, 3.0% for local currency bonds and 10.2% for EM equities relative to passive strategies that ignore EM media coverage (Figure 3).

On the other hand, it is not optimal to enter EM during lulls in media coverage, although investors should remain invested at such times if they already have exposure. Putting fresh money to work during media lulls leads to negative alpha of 1.1% for external debt, for example. However, since EM bonds return roughly 350 bps over Treasuries after subtracting default-related losses over the long term it clearly pays handsomely to remain invested.

| Conventional media: Alpha versus media-agnostic strategy | External debt (EMBI GD) | | | Equities (MSCI EM) |
|---|----------------------------|-------|-------|-----------------------|
| Buying in media frenzies | 2.7% | 3.3% | 3.0% | 10.2% |
| Buying in media troughs | -1.1% | -0.3% | -5.1% | -1.3% |
| Return in media-agnostic strategy | 8.8% | 7.1% | 6.6% | 4.1% |

Fig 3: Investing in response to conventional media frenzies and troughs: alpha generation

Source: Ashmore, Bloomberg, JP Morgan, Dow Jones Factiva.

Investing in response to social media frenzies has less impact (Figure 4). Alpha is mixed and relatively modest across the four asset classes. Buying external debt leads to negative alpha of 0.6%, there is no alpha in corporate debt, negative alpha of 0.7% in local currency bonds and positive alpha of 0.4% in EM equities. These small additional returns barely cover the bid offer spread of trading. Hence, we think investors should ignore social media frenzies. Buying during troughs in social media mentions appears to be a bad idea with negative alpha across bonds and stocks. However, this result may simply reflect a very dominant negative beta for EM over the relative short period of the social media time series. Of course, the index return was positive over the period, but anyone who bought EM specifically in response to media troughs made less money.

Fig 4: Investing in response to social media frenzies and troughs: alpha generation

| Conventional media: Alpha versus media-agnostic strategy | External debt (EMBI GD) | Corporate debt (CEMBI BD) | Local currency government bonds (GBI EM GD) | Equities (MSCI EM) |
|---|----------------------------|------------------------------|---|-----------------------|
| Buying in media frenzies | -0.6% | 0.0% | -0.7% | 0.4% |
| Buying in media troughs | -6.6% | -3.6% | -10.6% | -1.4% |
| Return in media-agnostic strategy | 9.8% | 7.1% | 6.6% | 4.9% |

Source: Ashmore, Bloomberg, JP Morgan, Crimson Hexagon.

Finally, we find that equity investors are more richly rewarded for paying attention to media frenzies than bond investors. The alpha from buying stocks is larger than the alpha from buying bonds in frenzies, both in the conventional and social media data. This is insightful. After all, all EM media frenzies in the data set centre exclusively around macroeconomic events, which suggests that equity investors should pay serious attention to macroeconomic developments. Pure bottom-up stock picking strategies make sense for a single postcode, but in the context of cross-border investment the unique FX and business cycle dynamics of different post codes should be taken into account. For example, what is the point of being great at picking a stock in, say, Brazil if the gains from stock selection are neutralised by a lower BRL when the funds invested in Brazil are repatriated?

Buying EM during frenzies in conventional media generates significant alpha, especially in stocks

Bad news may

for investors

depress readers,

but it is good news

Discussion

Investors watch financial TV, read financial newspapers, follow Twitter and pay good money for media services. This is because information is critically important for making good investment decisions. In principle, the media can help investors make better informed judgements by bringing previously unknown facts to light. Over time, this should have a meaningful, positive impact on asset allocation, economic outcomes and investment returns. The media can also act as a watchdog, which exposes abuse of power by governments or corporations, thus incentivising those in power to act with greater integrity.

Yet, media companies clearly serve their own private interests too, whether political or fiduciary. This creates a conflict between their private interests and the public interest they purport to serve. Media organisations will exploit prejudice and ignorance to increase circulation. Bad news sells better than good news, which is why coverage is biased towards negative stories.

EM is especially prone to exploitation by media organisations. Remote, unfamiliar, seen by many as threatening (think China) and generally perceived as very risky, EM lends itself particularly well to media hyperbole. Nothing delights an editor more than a juicy EM crisis. Almost all high profile EM stories revolve around bad news, be it contagion, debt defaults, corruption, hard landings in China, collapsing commodity prices, currency crises, trade tariff disasters, Fed hikes, the surging Dollar or the misguided policy actions of some hot-headed EM dictator.

The results presented in this report should therefore raise eyebrows. Whatever utility the media confers upon conventional readers, it is clearly not conferring the same value to investors. If investors are able to buy EM profitably in the middle of bad news frenzies, this can only be the case if either the news is wrong (unlikely, though not unheard of) or if the media so hypes up the bad news that some investors are sucked into selling and the associated selling goes way too far. The same situation can arise if the media – and many investors – wrongly extrapolate from bad news in a few countries to the entire asset class, leading some investors to wrongly liquidate exposures across perfectly healthy markets.

What is the conclusion? Does the media add value or cry wolf? The answer is both. The media loves a bad news day in EM and cries wolf all day long. The associated hyperbole leads to overselling as weak hands cave in. Investors with cool heads can make significant alpha by buying during such events. In fact, the worse the news the better the subsequent alpha, particularly for stocks.

Appendix

EM media frenzies and troughs

As shown in Figure 1, both media series are relatively short with clear trends over considerable periods. The conventional media (Dow Jones Factiva) appears to be more 'animated' than social media (Crimson Hexagon). This lends some support to the hypothesis that conventional media is more inclined to manipulate news to make it more sellable.⁶

A very prominent feature in the data is that the distributions are highly asymmetric, meaning that the number of large frenzies exceeds the number of large troughs. This is precisely why this report focuses specifically on the effect of these large extreme outliers. The asymmetry in the distributions has implications for how we identify frenzies and troughs. First, it is difficult to separate trends from cycles from spikes using conventional statistical means.⁷ Second, it is inappropriate to use symmetric thresholds to identify frenzies and troughs, since identical thresholds would identify far more troughs than spikes.

To solve the first of these two problems, we adopt a definition of media frenzies as observations that are 30% or more above the 12 month moving average volume of EM media mentions. Media troughs are defined as months when the number of EM mentions drops 15% or more below the 12 months moving average. This approach implies that newsworthiness is defined in reference to developments in the recent past (adaptive). The use of higher thresholds for media frenzies than for media troughs resolves the second problem.

⁶ Figure 1 in the main body of the paper shows that conventional media has a higher coefficient of variation. The coefficient of variation is defined as the ratio of the standard deviation to the mean, i.e. it is a measure of the volatility of the series.

⁷ Formal statistical analysis calls for establishing the order of integration of the time series, but unit root tests have very low power in short time series with frequent spikes.

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Using this method, we identify sixteen media frenzies and twenty nine troughs in the Dow Jones Factiva data set and fourteen frenzies and eighteen troughs in the Crimson Hexagon data set. Figure A1 shows the moving averages and thresholds; the frenzies and troughs are those observations, which fall outside the thresholds around the moving averages.



Fig A1: EM media frenzies and troughs

Source: Ashmore, Dow Jones Factiva, Crimson Hexagon.

What happened at these times so as to entice the media to write about EM? Figure A2 shows brief descriptions of the main stories, which prevailed in the sixteen frenzies. Seven of the sixteen episodes were EM-specific, while the bulk were caused by non-EM or global events. All the episodes were bad news stories.

| Fig A2: Sixteen occasions | , which caused co | nventional media to | frenzy about EM |
|---------------------------|-------------------|---------------------|-----------------|
|---------------------------|-------------------|---------------------|-----------------|

| Frenzy | Market perception of event | EM/non-EM | Market moving event | |
|-------------------|-------------------------------|-----------|------------------------------------|--|
| 31 July 2001 | Negative | EM | Argentina crisis | |
| 31 January 2003 | Negative | EM | Lula takes office in Brazil | |
| 31 March 2006 | Negative | Non-EM | Commodity price rise concerns | |
| 31 May 2006 | Negative | Non-EM | US inflation fears | |
| 30 June 2006 | Negative | Non-EM | Fed hikes to 5% | |
| 31 October 2008 | Negative Non-EM | | Dow Jones crashes | |
| 30 November 2009 | Negative | EM | Dubai debt standstill | |
| 29 October 2010 | Negative | Non-EM | First Greek Crisis | |
| 30 November 2010 | Negative | Non-EM | Irish financial crisis | |
| 31 July 2013 | Negative | Non-EM | Taper tantrum | |
| 30 September 2013 | Negative | Non-EM | Rising real rates in US | |
| 31 January 2014 | Negative | EM | Fear of China slowdown | |
| 28 February 2014 | Negative | EM | China currency weakness | |
| 30 September 2015 | Negative | EM | Chinese stock markets sell-off | |
| 30 October 2015 | Negative | Non-EM | Expected start of Fed hiking cycle | |
| 30 November 2017 | Negative | EM | Venezuela default fears | |

Source: Ashmore, Bloomberg, JP Morgan, Dow Jones Factiva.

The choice of threshold for identifying frenzies and troughs is arbitrary. Any threshold implies a trade-off between the number of outliers identified and their potential explanatory power. For example, a low threshold, meaning a threshold closer to the 12 month moving average, identifies more outliers, which then in turn become less distinct from the other observations. Similarly, a high threshold identifies outliers with greater potential explanatory power, but with lower relevance on account of their infrequency. In recognition of this arbitrariness, we also examined the sensitivity of investment returns to changing the thresholds.

All sixteen media frenzies since 1999 have been bad news events

a) Conventional media shocks: Changing the threshold for media frenzies does not change the overall result that buying EM during conventional media frenzies makes sense (Figure A3). The more extreme the threshold the bigger the associated alpha and vice versa. Broadly the same holds true when one changes the threshold for troughs as shown in Figure A4.

| Size of frenzy (% change in | Size of frenzy (increase in the | Number of | Alpha relative to stragegy which ignores frenzies | | | |
|--|--|--------------|---|---------------------------------|---|-----------------------|
| (% change in volume of mentions relative to long-term average volume of mentions) | volume of mentions in frenzies relative to the average volume of mentions) | frenzies | External debt (EMBI GD) | Corporate debt (CEMBI BD) | Local currency government bonds (GBI EM GD) | Equities (MSCI EM) |
| - | - | - | 8.8% | 7.1% | 6.6% | 4.1% |
| 15% | 1,136 | 115 | 0.9% | 0.3% | 2.4% | 4.8% |
| 23% | 1,727 | 67 | 1.1% | 0.5% | 3.1% | 5.0% |
| 32% | 2,445 | 36 | 0.1% | -0.6% | 1.3% | 2.5% |
| 46% | 3,459 | 16 | 2.7% | 3.3% | 3.0% | 10.2% |
| 49% | 3,676 | 7 | 1.9% | 4.8% | 5.2% | 12.5% |
| 47% | 3,530 | 3 | 4.7% | 15.2% | 6.8% | 11.5% |

Fig A3: Sensitivity of investment returns to changing thresholds for conventional media frenzies

Changing thresholds for frenzies and troughs does not change overall results

Source: Ashmore, Bloomberg, JP Morgan, Dow Jones Factiva.

Fig A4: Sensitivity of investment returns to changing thresholds for conventional media troughs

| Size of frenzy | Size of frenzy Size of trough Number (% change in (decline in average of | | Alpha relative to stragegy which ignores troughs | | | |
|--|---|---------|--|---------------------------------|---|-----------------------|
| volume of mentions relative to long-term average volume of mentions) | volume of mentions during troughs relative to average volume of mentions) | troughs | External debt (EMBI GD) | Corporate debt (CEMBI BD) | Local currency government bonds (GBI EM GD) | Equities (MSCI EM) |
| - | - | - | 8.8% | 7.1% | 6.6% | 4.1% |
| -12% | -904 | 107 | -0.5% | 0.4% | -1.6% | 4.2% |
| -16% | -1,214 | 76 | -1.0% | 0.2% | -2.3% | 3.1% |
| -20% | -1,516 | 52 | -1.3% | -0.4% | -3.9% | -0.4% |
| -24% | -1,832 | 29 | -1.1% | -0.3% | -5.1% | -1.3% |
| -26% | -1,924 | 12 | -1.3% | -2.8% | -8.1% | -7.3% |
| -26% | -1,991 | 3 | -0.5% | -7.1% | -28.2% | -32.9% |

Source: Ashmore, Bloomberg, JP Morgan, Dow Jones Factiva.

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b) Social media: The sensitivity of investment returns to changing thresholds for frenzies and troughs in social media is shown in Figures A5 and A6. The results are broadly similar to those for conventional media, meaning that the direction of alpha is broadly the same and the magnitude of the effects increases (declines) with higher (lower) thresholds.

| Size of frenzy | Size of frenzy | Number | Alpha relative to stragegy which ignores frenzies | | | | |
|--|--|----------------|---|---------------------------------|---|-----------------------|--|
| (% change in volume of mentions relative to long-term average volume of mentions) | (increase in the volume of mentions in frenzies relative to the average volume of mentions) | of frenzies | External debt (EMBI GD) | Corporate debt (CEMBI BD) | Local currency government bonds (GBI EM GD) | Equities (MSCI EM) | |
| - | - | - | 10% | 7% | 7% | 5% | |
| 115% | 58,008 | 48 | -1.7% | -0.5% | -2.6% | -4.8% | |
| 121% | 61,054 | 33 | -2.5% | -1.4% | -3.0% | -5.2% | |
| 129% | 65,387 | 20 | -1.0% | -0.2% | 0.7% | 0.2% | |
| 141% | 71,476 | 14 | -0.6% | 0.0% | -0.7% | 0.4% | |
| 166% | 83,705 | 8 | 0.1% | 0.6% | -2.0% | 2.4% | |
| 170% | 86,189 | 6 | -0.6% | 0.2% | -3.1% | 2.1% | |

Fig A5: Sensitivity of investment returns to changing thresholds for social media frenzies

Source: Ashmore, Bloomberg, JP Morgan, Crimson Hexagon.

Fig A6: Sensitivity of investment returns to changing thresholds for social media troughs

| Size of frenzy (% change in | Size of trough (decline in average | Number of | Alpha re | elative to strageg | y which ignores | troughs |
|--|---|--------------|-------------------------------|---------------------------------|---|-----------------------|
| volume of mentions relative to long-term average volume of mentions) | volume of mentions during troughs relative to average volume of mentions) | troughs | External debt (EMBI GD) | Corporate debt (CEMBI BD) | Local currency government bonds (GBI EM GD) | Equities (MSCI EM) |
| - | - | - | 10% | 7% | 7% | 5% |
| -16% | -8,104 | 52 | -6.0% | -3.0% | -7.9% | -2.3% |
| -20% | -9,883 | 41 | -6.0% | -3.2% | -8.4% | -2.3% |
| -23% | -11,824 | 30 | -6.7% | -3.6% | -9.7% | -3.1% |
| -30% | -14,918 | 18 | -6.6% | -3.6% | -10.6% | -1.4% |
| -33% | -16,575 | 12 | -7.7% | -4.4% | -9.7% | -1.5% |
| -36% | -18,137 | 8 | -8.1% | -4.7% | -11.5% | -3.5% |

Source: Ashmore, Bloomberg, JP Morgan, Crimson Hexagon.



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