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Sentiment Return Dynamics in BRICS Equity Markets

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Abstract

This study investigates the dynamic interplay between investor sentiment and financial market performance within the BRICS equity markets (Brazil, Russia, India, China, and South Africa) across multiple timeframes (daily, weekly, and monthly) from the period of year 2004 to year 2022. Utilizing households google search trends, we construct daily, weekly, and monthly investor sentiment to empirically examine several key areas at various time frames: first, the co-movement between investor sentiment and equity returns, second, the predictive capacity of our investor sentiment towards equity returns, and the reversion of investor sentiment over time. The findings reveal a positive concurrent relationship between investor sentiment and market returns across all examined timeframes through panel data analysis and robust testing using the Generalized Method of Moments approach. Notably, results indicate that sentiment serves as a contrarian predictor for country-level returns, with a tendency for sentiment-driven gains or losses to revert in subsequent periods, suggesting a reversion rather than persistence of sentiment especially in daily and monthly analysis. This behavior underscores the significant role of psychological factors and behavioral biases in shaping market trends within emerging economies. Furthermore, our study's findings emphasize the importance of incorporating investor psychology into financial analysis, particularly in the context of portfolio allocation and risk management strategies in these markets. This research contributes valuable insights for investors, policymakers, and financial regulators, highlighting the intricate relationship between behavioral factors and market dynamics in emerging economies and offering potential avenues to mitigate risk and enhance decision-making in the BRICS financial markets, where volatility and rapid sentiment shifts are crucial.

Keywords: Investor sentiment, google trends, stock returns, BRICS, equity market

INTRODUCTION

Investor sentiment has gained immense significance as a factor affecting financial market dynamics. It reflects psychological, behavioral and emotional responses of all market participants towards the economic conditions and markets trends, that deviates asset prices from their fundamental values. Efficient Market Hypothesis by Eugene Fama (1970) proposed that financial asset prices depict all available market information, and no market player can beat market, unless he bears additional risk to gain higher rewards. This concept of efficient capital markets in classical finance has been challenged by a huge body of researchers in literature, highlighting the prevalence of inefficient capital markets due to market anomalies and sentiment driven distortions (Ahn & Hambusch, 2024; Baker & Wurgler, 2006; Reis & Pinho, 2020; Gao et al., 2020; Schmeling et al., 2023; Ung et al., 2023; Van Eyden et al., 2023; Wang et al., 2021; Audi et al., 2021; Zhang 2023). An optimistic (pessimistic) investor sentiment can push up (down) asset prices from their intrinsic values, causing temporary mispricing and short-term market volatility (De Long et al., 1990; Dergiades et al., 2015; Audi et al., 2022; Hong & Zu, 2024).

This dynamic association among investor sentiment and financial asset returns has gained attention by academicians and researchers based on its influence on market inefficiencies and potential arbitrage opportunities (Shiller, 2000; Smales, 2022; Sulehri & Ali, 2024). Despite an extensive body of research on sentiment return relationship, several key challenges persist in literature (Aggarwal, 2022; Audi et al., 2023; Yadav & Chakraborty, 2023; Ahmed & Alvi, 2024). First, measuring the overall market sentiment is quite complex and challenging (Baker & Wurgler, 2007). For instance, Sibley et al. (2016) argue that the predictive power of the Baker and Wurgler (2006) sentiment index for stock returns is largely driven by underlying business cycle fluctuations and

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risk components, rather than purely capturing sentiment itself. Second, there is a dearth of causal evidence aligning sentiment indices with theoretical frameworks, as many market behaviors attributed to sentiment can be rationalized through traditional models (Pastor & Veronesi, 2003, 2005, 2006). Third, extant research is constrained by both temporal frequency and geographic scope. Huang et al. (2015) assert that sentiment-based return predictability is largely observed over extended horizons, while Baker et al. (2012) highlights the scarcity of empirical studies beyond U.S. markets.

Amid the growing interest in investor sentiment within economic research, it is essential to address the aforementioned issues by employing alternative sentiment measures and conducting out-of-sample analyses. Particularly in the context of emerging markets, such as the BRICS countries, understanding the interplay between investor sentiment and financial returns is crucial given their increasing global significance and unique characteristics. The BRICS equity markets, comprising of Brazil, Russia, India, China, and South Africa, have experienced rapid growth, integration into global financial systems, and unique country-specific risk factors over the past two decades (Nasr et al., 2018). Therefore, this study directly quantifies investor sentiment through Google search behavior of households (using Google Trends) and examines the impact of sentiment at a daily, weekly and monthly frequency across BRICS countries, spanning the period from 2004 to 2022.

This study aims to contribute to the existing literature by examining the sentiment-return dynamics in the BRICS equity markets. Specifically, we investigate the following research questions: What is the nature of the concurrent relationship between investor sentiment and stock market returns in the BRICS countries? How does investor sentiment predict future stock market returns in these emerging markets? And how persistent or reversal is the impact of sentiment on future returns? We found a significantly positive sentiment-return co-movements on average across BRICS countries, and our investor sentiment reverts in daily and monthly analysis rather persist in the following periods across our sample countries. The paper contributes to the understanding of sentiment return dynamics in BRICS equity markets by examining the interconnection between investor sentiment and financial returns at multiple time frames. Specifically, we construct a sentiment index using Google search trends data, which serves as a measure for our dynamic sentiment-return analysis at multiple time frequencies.

The remainder of this paper includes section two for the literature review, section three is devoted to data and methodology, section four encapsulates all empirical analysis results and discussion, while the last part, section five concludes our research findings and provides policy implications.

LITERATURE REVIEW

The relationship between investor sentiment and stock returns has been extensively studied in the finance literature (Ahn & Hambusch, 2024; Gao et al., 2020; Ullah & Sohail, 2020; Schmeling et al., 2023; Olubiyi, 2023; Ung et al., 2023, Van Eyden et al., 2023; Wang et al., 2021; Zhang 2023; Munir et al., 2024). Studies have employed various measures, such as surveys (He et al., 2017; Heiden et al., 2013; Reis & Pinho, 2020; Subhani et al., 2022; Olubiyi, 2023; Sibley et al., 2016; Smales, 2017; Schmeling, 2007), social media data and textual analysis of news articles (Da et al., 2011; Da et al., 2015; Dougal et al., 2012; García, 2013; Gilbert & Karahalios, 2010; Tetlock, 2007; Singh et al., 2024) to capture investor mood or sentiment. Baker and Wurgler (2007) stated that "*Investor sentiment, defined broadly, is a belief about future cash flows and investment risks that is not justified by the facts at hand*" (p. 129). Prior research has found that sentiment-driven trading can lead to market mispricing and deviations from fundamental values, creating potential investment opportunities for informed investors.

Nandwani and Verma (2021) highlighted that social media and digital technologies act as catalyst, enhancing sentiment influence on market returns. They stated that these mediums provide rapid and current information which enables market participants to respond swiftly. One measure that has gained attention in recent years is the use of Google search trends as a proxy for investor sentiment. Google search data not only captures the sentiment of market participants but also provides timely insights. As the leading search engine globally, Google's dominance ensures comprehensive coverage, making it a valuable tool for sentiment analysis. Moreover, existing research demonstrates that the volume of Google search queries can serve as a predictor of future behavior, including economic actions by households. For instance, Ginsberg et al. (2009) demonstrated the ability to track influenza outbreaks through patterns in Google search queries, highlighting the predictive power of search data.



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The association between market sentiment and asset returns has been extensively explored by researches in developed economies, leaving room for further research in developing nations. As their lies significant differences among developed and developing economies, particularly in terms of their market returns and market efficiency (Bekaert & Harvey, 2002) the sentiment-return dynamics in these economies are crucial to be examined. Additionally, one of the seminal noise trader models by De Long et al. (1990) illustrates that, within a market where both informed and noise traders are present, the pricing of risky assets is influenced by various exogenous factors and the misperceptions of noise traders. Building on this, Ding et al. (2018) expanded the DSSW model to include multiple risky assets, reinforcing the importance of noise traders' misperceptions in determining stock returns. These market misperceptions however vary across markets based on the different cultural attitudes, market integrity, and financial literacy that form market sentiment (Kwok & Tadesse, 2006; Aggarwal & Goodell, 2009; Chui et al., 2010; Zouaoui et al., 2011; Grinblatt et al., 2011 & 2012; Cole et al., 2014; Banyen, 2022). Thus, the impact of investor sentiment on stock returns is likely to differ across developing markets and across different time frames but the empirical evidence in this area remains sparse.

We are interested to investigate the sentiment-return dynamics in BRICS countries at various time frequencies, to empirically evaluate the co-movement between sentiment and returns, the predictability of returns based on sentiment, and the reversal of sentiment over time. We established following hypothesis to test sentiment return relationship at daily, weekly and monthly frequency for our sample countries.

Hypothesis 1: Investor sentiment and contemporaneous market returns are positively related. Hypothesis 2: Investor sentiment and future market returns are negatively related. Hypothesis 3: Investor sentiment will revert rather than persist in following period.

DATA AND METHODOLOGY

We used household google search trends to construct our sentiment measure following the methodology of Gao et al. (2020). Their methodology is an enhanced approach of Da et al. (2015). We collected search volume indices (SVI) for all economic and finance related terms at daily, weekly and monthly intervals from google trends. The terms are derived from the Harvard IV-4 Dictionary and the Lasswell Value Dictionary, used in text analysis research (Tetlock, 2007) and selected terms with positive and negative sentiment. This yields words, including terms like "bankruptcy," "cost," "gold," "jobless," and "profit." The daily, weekly, and monthly SVI data for selected terms are retrieved from January 2004 to December 2022 for each sample country. Change in SVI for each term is then computed to ensure comparability across terms, the data are deseasonalized and standardized, resulting in an adjusted change in SVI (Δ ASVI) for all terms. Our sentiment is constructed by averaging Δ ASVI of the top 30 positive and top 30 negative search terms, with the sentiment measure calculated as the difference between these averages,

Sentiment_t =
$$\sum_{i=1}^{30} R^i_+ (\Delta ASVI_i) - \sum_{i=1}^{30} R^i_- (\Delta ASVI_i)$$

We collected the stock returns data of Brazil (IBOVESPA Index), Russia (IMOEX Index), India (NIFTY 500 Index), China (SSE Composite Index) and South Africa (FTSE/JSE All-Share Index) from Thomson Reuters Datastream database at daily, weekly and monthly intervals. The same database provided country-specific implied volatility index and exchange rate date at multiple frequency. While the data pertaining to the ADS index and economic policy uncertainty was retrieved from Federal Reserve Bank Philadelphia and economic policy uncertainty website respectively. Table 1 shows our study variables, along with their variable type and data sources. Our sentiment and stock return hypothesis can be written as the following regression equations:

H ₁ : $SR_{i,t} = a + bSENT_{i,t} + Controls_{i,t} + \varepsilon_{i,}$	eq(iv)
H ₂ : $SR_{i,t+1} = a+bSENT_{i,t} + Controls_{i,t} + \varepsilon_{i,t}$	eq(v)
H ₃ : SENT _{i,t+1} = $a+bSENT_{i,t}+Controls_{i,t}+\varepsilon_{i,t}$	eq(vi)

Here, SR is the contemporaneous stock returns, SR_{t+1} is the future stock returns, SENT is our investor sentiment, SENT t+1 is the lagged investor sentiment. Control variables include implied volatility index (VIX), ADS index (Econ-US), exchange rate (EXC), economic policy uncertainty index (EPU), weekly market volatility (MV_week), monthly market volatility (MV_month), and lagged stock returns (SR_L1, SR_L2, SR_L3, SR_L4). Daily, weekly, and monthly sentiment-return relationships were assessed for each sample country to identify the



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impact of market sentiment on their respective financial market stock returns. We also estimated the impact of current sentiment (SENT) on the lagged sentiment (SENT $_{t+1}$) to describe the association among them on a daily, weekly, and monthly frequency and test the sentiment reversal.

Variable	Variable Name	Type of Variable	Data Source
SR	Stock Returns	Endogenous	Thomson Reuters Datastream
SENT	Sentiment	Exogenous	Google Search Trends
VIX	Implied Volatility Index	Control	Thomson Reuters Datastream
Econ_US	ADS Index	Control	Federal Reserve Bank Philadelphia
EXC	Exchange Rate	Control	Thomson Reuters Datastream
EPU	Economic Policy Uncertainty Index	Control	www.PolicyUncertainty.com
MV_week	Weekly Market Volatility	Control	Market Indexes
MV_month	Monthly Market Volatility	Control	Market Indexes

Table 1: Data Sources and Variable Description

We used panel data analysis to test our study hypothesis as the data comprised of multiple firms over multiple time periods. Before performing model selection tests for our regression equations, we run diagnostic checks for multicollinearity, heteroscedasticity, and serial correlation. To check for the issues of multicollinearity, heteroscedasticity, and serial correlation, we used VIF, Modified Wald test and Wooldridge test respectively. VIF remained less than 10 showing no issue of multicollinearity in our models. Modified Wald test p-value remained lower than 0.05, showing that there is an issue of heteroscedasticity. Wooldridge test p-value remained less than 0.05 stating the issue of serial correlation in our models. We encountered challenges in calculating the serial correlation in our monthly data due to the short panel length. To rectify the problems of heteroscedasticity and serial correlation in our models, standard errors are clustered at year-weekday, year-week and year-month in daily. weekly and monthly data respectively. Cook's distance test (Cook, 1997) was utilized for detection and elimination of outliers. Model section tests included Breusch-Pegan LM test and Hausman test. LM test is used to select between the pooled OLS and random effect models while the Hausman test is used to select among the random effect and fixed effect models. Breusch and Pegan LM test p-value remained greater than 0.05 suggesting that pooled OLS model is more appropriate in comparison to random effects model in all data frequencies. Hausman test p-value remained less than 0.05, concluding that fixed effects model is more appropriate than the random effects model in all our data intervals.

RESULT AND DISCUSSION

Descriptive Analysis

The descriptive statistics presented in Table 2 provide a comprehensive view of key financial and economic variables for BRICS countries analyzed at daily, weekly, and monthly frequencies. The daily analysis indicates that stock returns across BRICS countries are generally low, with mean values hovering around zero, reflecting minor day-to-day fluctuations. Brazil and South Africa exhibit higher standard deviations, signifying greater daily volatility compared to countries like China, which shows the lowest volatility. Large fluctuations are observed in weekly data where Russia bears highest volatility while China volatility remains stable. Monthly data states the most variations in financial behavior, where Brazil and South Africa show positive average monthly returns in contrast to Russia and India indicating long-term growth and sustainability. India faces the highest monthly standard deviations reflecting significant volatility. These descriptives state the presence of diverse market sentiments and risk patterns at various time intervals. Among our controls, the implied volatility showed that among our sample countries, South Africa faces the higher perceived risk, making it more volatile in investor's perception over longer time periods. Further, the consistent negative influence of United States economic conditions on emerging nations reflects the interconnectedness of our global markets. Furthermore, economic policy uncertainty and exchange rates prevailing in these developing economies state the economic risks and challenges faced by them as they can influence market stability and investor sentiment in these markets.



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Table 2: Summary Statistics										
				Pan	el A: Daily					
	BR.	A	RU	JS	INI)	CH	II	SO	A
Variables	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SR	-0.0001	0.0459	-0.0003	0.0534	0.0001	0.0565	0.0003	0.0313	0.0001	0.0601
SENT	0.0004	0.1915	-0.0003	0.1946	-0.0010	0.1904	0.0006	0.2021	-0.0025	0.1943
VIX	3.2548	2.9369	4.1142	7.4063	1.7225	1.1524	2.5280	7.003	1.8582	9.0847
Econ_US	-0.2737	2.4559	-0.2700	2.1229	-0.2692	2.1149	-0.2666	2.1185	-0.2701	2.1206
EXC	3.0814	1.2426	5.0184	1.8457	5.8584	1.1646	6.5813	0.2927	1.0956	3.469
SR_L1	-0.0001	0.0459	-0.0003	0.0534	0.0001	0.0565	0.0003	0.0313	0.0001	0.0601
SR_L2	-0.0001	0.0459	-0.0003	0.0534	0.0001	0.0565	0.0003	0.0313	0.0001	0.0601
SR_L3	-0.0001	0.0459	-0.0003	0.0534	0.0001	0.0565	0.0003	0.0313	0.0001	0.0601
SR_L4	-0.0001	0.0459	-0.0003	0.0534	0.0001	0.0565	0.0003	0.0313	0.0001	0.0601
Obs.	1207941		271031		11969535		2928301		844124	
				Pane	l B: Weekly					
	BR.	A	RU	JS	INI)	CH	Π	SO	A
Variables	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SR	-0.0010	0.0990	-0.0011	0.1141	0.0001	0.1190	0.0012	0.0750	0.0001	0.1140
SENT	0.0170	0.1880	-0.0080	0.1922	-0.0044	0.1881	0.0100	0.2110	-0.0050	0.1911
VIX	3.2576	2.9369	4.1164	7.3824	1.7299	1.1756	2.5146	6.7844	1.8562	9.0626
Econ_US	-0.2770	2.4670	-0.271	2.5734	-0.2822	2.4431	-0.2295	3.1811	-0.2810	2.4254
EXC	3.0760	1.2380	5.0086	1.8409	5.8568	1.1632	6.5811	0.2934	1.0953	3.4640
MV_week	0.0690	0.0580	0.0760	0.0792	0.0894	0.0644	0.0594	0.0181	0.0800	0.0754
SR_L1	-0.0010	0.0990	-0.0011	0.1141	0.0001	0.1190	0.0012	0.0750	0.0001	0.1140
SR_L2	-0.0010	0.0990	-0.0011	0.1141	0.0001	0.1190	0.0012	0.0750	0.0001	0.1140
SR_L3	-0.0010	0.0990	-0.0011	0.1141	0.0001	0.1190	0.0012	0.0750	0.0001	0.1140
SR_L4	-0.0010	0.0990	-0.0011	0.1141	0.0001	0.1190	0.0012	0.0750	0.0001	0.1140
Obs.	239494		53743		2373531		580140		167373	
				Panel	C: Monthly					
	BR	A	RU	JS	INI)	CH	II	SO	A
Variables	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SR	0.0034	0.3453	-0.0168	0.4160	-0.0318	0.4409	-0.0242	0.1330	0.0052	0.4088
SENT	0.0017	0.1535	0.0060	0.2153	-0.0003	0.2016	-0.0412	0.2182	0.0593	0.1982
VIX	3.0652	2.9343	4.0594	7.8718	1.6238	1.0370	2.6993	6.9194	1.8613	8.9821
Econ_US	-0.0486	0.8097	-0.0167	0.7521	-0.0635	0.8001	0.1704	0.5405	-0.0690	0.7962
EXC	2.9880	1.2133	4.9242	1.8433	5.7277	1.1523	6.5566	0.2596	1.0458	3.3371
EPU	1.5469	9.0531	1.9647	9.6938	9.4203	5.3569	3.3854	1.6561	1.8502	9.5742
MV_month	0.1831	0.2726	0.1785	0.3559	0.2213	0.3252	0.1154	0.0214	0.1786	0.3649
SR_L1	0.0035	0.3453	-0.0168	0.4161	-0.0318	0.4409	-0.0242	0.1330	0.0052	0.4088
SR_L2	0.0035	0.3453	-0.0168	0.4162	-0.0319	0.4409	-0.0242	0.1330	0.0052	0.4089
SR_L3	0.0035	0.3453	-0.0168	0.4163	-0.0319	0.4409	-0.0242	0.1330	0.0053	0.4089
SR_L4	0.0035	0.3453	-0.0167	0.4164	-0.0319	0.4409	-0.0242	0.1330	0.0053	0.4089
Obs.	7884		1728		78608		17930		5555	

Sentiment and Contemporaneous Returns

Table 3 presents empirical findings on contemporaneous co-movement between sentiment and returns across different time frames for our sample countries. Results state a significant positive association among our investor sentiment and contemporaneous returns at daily, weekly and monthly intervals on average. This suggests that shifts in investor sentiment in BRICS nations are closely aligned with movements in stock prices. Consistent with the overreaction hypothesis, the findings imply that optimistic sentiment leads investors to increase stock purchases, driving prices up, while pessimistic sentiment prompts stock sales, leading to price declines. These results emphasize the critical role of investor sentiment in influencing short-term market fluctuations and highlight the



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strong connection between investor psychology and market performance. It is observed that our sentiment has a larger effect on weekly returns as compared to daily returns, particularly in India, suggesting that sentiment builds up over time and may have a delayed or cumulative effect on stock performance. The negative monthly sentiment effects in Brazil and India are particularly striking, suggesting a strong reversal effect, where positive sentiment leads to negative returns after some time. In contrast, Russia, China, and South Asia display a more straightforward positive relationship between sentiment and returns. On one hand, this could be contributed by the country's unique market characteristics, economic structure, and investor behaviors. While on the other hand, this could be reasoned based on the fact that the daily and weekly data capture more immediate reactions and broader trends, whereas monthly data could miss these nuances, especially if the market adjusts to sentiment shifts within days.

The table states summary statistics of investor sentiment and market return variables for our sample countries at daily, week, and monthly intervals. SR here is stock returns, SENT is sentiment, VIX is implied volatility index, Econ_US is ADS index, EXC is exchange rate, EPU is economic policy uncertainty, MV_month is monthly market volatility, MV_week is weekly market volatility, SR_L1 denotes first lag of returns, SR_L2 denotes second lag of returns, SR_L3 denotes third lag of returns, while SR_L4 denotes fourth lag of returns.

Further, our control variables displayed significant association with contemporaneous returns. The sensitivity to implied volatility is more pronounced in India and China, with these markets responding negatively to volatility, reflects greater risk aversion. Meanwhile, Brazil and Russia continue to respond positively to volatility, showing potential for short-term risk-on behavior. Similarly, U.S. economic conditions impact some markets more than others, suggesting that global economic integration affects these regions differently. Exchange rates have a significant, largely negative impact on returns, highlighting the sensitivity of these emerging markets to currency risks. Further, the large negative impact of market volatility in China suggests that the market may be particularly fragile in response to systemic risk over weekly periods, compared to other regions. While the impact of monthly market volatility is mixed, with Brazil showing risk-on behavior and India displaying risk-averse tendencies. The results are consistent with the previous researchers like Ahn and Hambusch (2024), Da et al. (2015), Ali (2018), Gao et al. (2020), Ung et al. (2023), Yadav and Chakraborty (2023), Yousfi et al. (2021), Wang et al., (2021) and Zhang (2023).

Panel A: Daily							
Variables	BRA_SR	RUS_SR	IND_SR	CHI_SR	SOA_SR		
SENT	0.0001**	0.0001**	0.0005***	0.0008***	0.0012***		
	(0.0001)	(0.0002)	(0.0000)	(0.0001)	(0.0001)		
VIX	0.0000***	0.0000**	-0.0001***	-0.0001***	0.0000***		
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)		
Econ_US	0.0003***	-0.0000***	-0.0000**	0.0000***	-0.0000***		
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)		
EXC	-0.0026***	-0.0003***	-0.0001***	-0.0027***	-0.0016***		
	(0.0001)	(0.0000)	(0.0000)	(0.0001)	(0.0001)		
SR_L1	-0.0242***	-0.0421***	-0.0214***	-0.0116***	-0.0788***		
	(0.0026)	(0.0045)	(0.0010)	(0.0007)	(0.0048)		
SR_L2	-0.0111***	-0.0158***	0.0095***	-0.0144***	-0.0304***		
	(0.0010)	(0.0017)	(0.0005)	(0.0005)	(0.0019)		
SR_L3	-0.0113***	-0.0114***	0.0095***	0.0008*	-0.0163***		
	(0.0008)	(0.0015)	(0.0004)	(0.0005)	(0.0011)		
SR_L4	-0.0077***	-0.0058***	0.0066***	-0.0102***	-0.0109***		
	(0.0007)	(0.0013)	(0.0003)	(0.0005)	(0.0010)		
Constant	0.0073***	0.0068***	0.0059***	0.0219***	0.0114***		
	(0.0003)	(0.0007)	(0.0002)	(0.0005)	(0.0004)		
Obs.	1,172,718	264,412	11,656,079	2,708,956	822,477		
\mathbb{R}^2	0.0065	0.0077	0.0035	0.0070	0.0131		
No. of id	406	81	3,423	1,405	230		
Panel B: Weekly							

Table 3: Sentiment and Return Relationship



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Variables	DDA CD	DUG CD	IND CD	CIII CD	
variables	DRA_SK	<u>RUS_SK</u>		<u>CHI_SR</u>	<u>SUA_SK</u>
SENT	0.0049***	0.0016**	0.01/6***	0.0011***	0.0028***
	(0.0005)	(0.0012)	(0.0003)	(0.0003)	(0.0006)
VIX	0.0000***	0.0000***	-0.0002***	-0.0006***	0.0001**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Econ_US	0.0021***	-0.0000	0.0007***	0.0002***	0.0012***
	(0.0000)	(0.0001)	(0.0000)	(0.0000)	(0.0001)
EXC	-0.0126***	-0.0011***	-0.0016***	-0.0221***	-0.0093***
	(0.0005)	(0.0001)	(0.0000)	(0.0004)	(0.0003)
MV_week	-0.0556***	-0.0212***	-0.0158	-0.8159***	-0.0022
	(0.0085)	(0.0054)	(0.0212)	(0.0064)	(0.0041)
SR_L1	-0.0458***	-0.0561***	-0.0059***	-0.0486***	-0.1046***
	(0.0025)	(0.0058)	(0.0010)	(0.0011)	(0.0062)
SR_L2	0.0142***	-0.0067**	0.0020***	0.0052***	-0.0311***
	(0.0016)	(0.0030)	(0.0007)	(0.0010)	(0.0023)
SR_L3	0.0064***	-0.0216***	0.0024***	-0.0168***	-0.0155***
	(0.0016)	(0.0030)	(0.0006)	(0.0010)	(0.0020)
SR_L4	0.0042***	-0.0033*	-0.0137***	-0.0176***	-0.0011
	(0.0013)	(0.0019)	(0.0006)	(0.0010)	(0.0016)
Constant	0.0485***	0.0293***	0.1021***	0.1892***	0.0667***
	(0.0017)	(0.0037)	(0.0028)	(0.0030)	(0.0022)
Obs.	231.923	52.159	2.297.014	543,909	162.395
\mathbb{R}^2	0.0511	0.0316	0.0321	0.0836	0.0553
No. of id	406	81	3,422	1.405	230
		Pane	el C: Monthly	-,	
Variables	BRA SR	RUS SR	IND SR	CHI SR	SOA SR
SENT	-0 2235***	0.0031***	-0 2008***	0.0096**	0.0303**
SERT	(0.0280)	(0.0001)	(0.0106)	(0.0000)	(0.0133)
WIX	-0.0006***	0.0001***	-0.0105***	(0.0175)	0.0007
V 17X	(0.0000)	(0,0001)	(0.0008)	(0.0004)	(0.0007)
Econ US	0.0130*	(0.0000)	(0.0000)	(0.0012)	0.0473***
LCOII_US	(0.0130)	(0.0159)	-0.0444	-0.0073	(0.0077)
FYC	0.0003	0.0005**	0.026	0.1150	0.0156**
LAC	-0.0803	(0.0093)	(0.0230)	-0.1130	-0.0150
EDU	(0.0150)	(0.0043)	(0.0011)	(0.2437)	(0.0002)
EPU	-0.0003^{+++}	-0.0000	(0.0008^{***})	0.0001	0.0002
	(0.0001)	(0.0001)	(0.0001)	(0.0002)	(0.0001)
MV_month	(0.0516)	-0.0152	$-0.3/0^{-0.11}$	(2, 4477)	-0.4537
	(0.0510)	(0.0238)	(0.1108)	(3.4477)	(0.3407)
SK_LI	-0.0048	-0.0429^{***}	-0.0145***	-0.0/06***	-0.0061
	(0.0034)	(0.0161)	(0.0013)	(0.0069)	(0.0038)
SR_L2	-0.0007	-0.0313***	-0.0016	-0.0620***	0.0010
~~ · ·	(0.0036)	(0.0110)	(0.0011)	(0.0063)	(0.0033)
SR_L3	0.0017	-0.0152	-0.0032*	-0.0500***	-0.0042
~~ · ·	(0.0039)	(0.0095)	(0.0016)	(0.0058)	(0.0037)
SR_L4	-0.0156***	-0.0212**	-0.0094***	-0.0383***	-0.0124**
_	(0.0043)	(0.0094)	(0.0012)	(0.0057)	(0.0048)
Constant	-0.9518***	-1.1821***	-1.5124***	0.4611	1.3836
	(0.1085)	(0.3550)	(0.2598)	(1.9294)	(0.8847)
Obs.	7,691	1,689	76,649	17,087	5,424
\mathbb{R}^2	0.2511	0.1571	0.2895	0.3126	0.1672
No. of id	384	81	3,334	1,400	228

This table reports the contemporaneous sentiment-return relationship on daily, weekly, and monthly intervals for BRICS countries. The dependent variables BRA_SR, RUS_SR, IND_SR, CHI_SR, and SOA_SR denotes stock



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returns of Brazil, Russia, India, China and South Africa respectively. The exogenous variable SENT is the investor sentiment, while control variables include VIX, Econ_US, EXC, EPU, MV_month, MV_week, SR_L1, SR_L2, SR_L3, and SR_L4. VIX is implied volatility index, Econ_US is ADS index, EXC is exchange rate, EPU is economic policy uncertainty, MV_month is monthly market volatility, MV_week is weekly market volatility, SR_L1 denotes first lag of returns, SR_L2 denotes second lag of returns, SR_L3 denotes third lag of returns, while SR_L4 denotes fourth lag of returns. Year-weekday fixed effects, year-week fixed effects and year-month fixed effects were used in daily, weekly and monthly data respectively. ***, **, and *indicates the significance level at 1%, 5%, and 10% respectively.

Sentiment and Future Returns

The empirical results for our sentiment and future returns relationship across different time frames for our sample countries are presented in Table 4. Results highlight a significant negative association among sentiment and future returns at daily, weekly and monthly intervals on average across BRICS countries. This states that when investor sentiment is high, investors may become overly optimistic about future stock prices, driving prices up to unsustainable levels, leading to overvaluation of stocks. As a result, when the sentiment normalizes, stock prices may correct downwards, leading to lower future returns. Conversely, when sentiment is low, stocks may be undervalued, and future returns can be higher as prices revert to their fundamental values as per the mean reversion hypothesis. Unlike in daily data, weekly sentiment effect on Brazil is positive, suggesting a different market reaction over a longer time frame. However, Russia, India, China, and South Asia show persistent sentiment reversion, implying an overreaction correction over the week. Moreover, A pronounced negative sentiment effect in India at monthly analysis suggests that high sentiment may lead to overvaluation corrected by month's end, highlighting India's potential susceptibility to sentiment-driven fluctuations.

	Panel A: Daily							
Variables	BRA_SR t+1	RUS_SR t+1	IND_SR t+1	CHI_SR _{t+1}	SOA_SR t+1			
SENT	-0.0014***	-0.0015***	-0.0011***	-0.0002***	-0.0007**			
	(0.0001)	(0.0003)	(0.0000)	(0.0001)	(0.0003)			
VIX	0.0000	0.0000***	0.0000***	-0.0000***	-0.0001***			
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)			
Econ_US	0.0003***	-0.0001**	-0.0000***	-0.0000***	-0.0000			
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)			
EXC	0.0023***	0.0001***	0.0001***	-0.0010***	0.0016***			
	(0.0001)	(0.0000)	(0.0000)	(0.0001)	(0.0001)			
SR_L1	-0.0082***	-0.0261***	0.0134***	-0.0130***	-0.0123***			
	(0.0008)	(0.0062)	(0.0005)	(0.0005)	(0.0042)			
SR_L2	-0.0092***	-0.0098**	0.0108***	0.0016***	-0.0147***			
	(0.0008)	(0.0048)	(0.0004)	(0.0005)	(0.0041)			
SR_L3	-0.0061***	-0.0171**	0.0078***	-0.0095***	-0.0119***			
	(0.0007)	(0.0071)	(0.0003)	(0.0005)	(0.0034)			
SR_L4	-0.0031***	-0.0032	0.0056***	-0.0216***	-0.0076**			
	(0.0005)	(0.0033)	(0.0003)	(0.0004)	(0.0037)			
Constant	-0.0062***	-0.0019	-0.0038***	0.0095***	-0.0085***			
	(0.0003)	(0.0027)	(0.0002)	(0.0005)	(0.0005)			
Obs.	1,173,568	264,680	11,670,910	2,713,411	825,073			
\mathbb{R}^2	0.0052	0.0026	0.0029	0.0061	0.0010			
No. of id	406	81	3,423	1,405	230			
		Panel B	: Weekly					
Variables	BRA_SR _{t+1}	RUS_SR _{t+1}	IND_SR _{t+1}	CHI_SR _{t+1}	SOA_SR t+1			
SENT	0.0048***	-0.0016**	-0.0049***	-0.0048***	-0.0087***			
	(0.0005)	(0.0012)	(0.0002)	(0.0003)	(0.0007)			
VIX	0.0000***	0.0000***	-0.0000*	-0.0004***	-0.0005***			



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	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	
Econ US	0.0017***	0.0000	0.0011***	0.0003***	0.0015***	
_	(0.0000)	(0.0001)	(0.0000)	(0.0000)	(0.0001)	
EXC	0.0247***	0.0006***	0.0005***	-0.0024***	0.0068***	
	(0.0006)	(0.0001)	(0.0000)	(0.0005)	(0.0003)	
MV week	0.0325***	-0.0019	0.0034***	-0.2128***	0.0095***	
—	(0.0031)	(0.0032)	(0.0004)	(0.0055)	(0.0015)	
SR L1	0.0232***	0.0013	0.0069***	0.0042***	-0.0050***	
_	(0.0017)	(0.0026)	(0.0007)	(0.0010)	(0.0019)	
SR L2	0.0137***	-0.0162***	0.0050***	-0.0191***	-0.0018	
_	(0.0017)	(0.0032)	(0.0006)	(0.0010)	(0.0016)	
SR L3	0.0106***	0.0011	-0.0131***	-0.0178***	0.0083***	
~	(0.0013)	(0.0022)	(0.0006)	(0.0010)	(0.0015)	
SR L4	-0.0039***	-0.0004	-0.0067***	-0.0330***	-0.0002	
~	(0.0013)	(0.0016)	(0.0005)	(0.0010)	(0.0012)	
Constant	-0.0588***	-0.0115***	-0.0106***	0.0356***	-0.0340***	
Constant	(0.0019)	(0.0036)	(0.0015)	(0.0032)	(0.0018)	
Obs.	232.192	52.269	2.305.616	543.927	162.686	
\mathbf{R}^2	0.0526	0.0197	0.0288	0.0515	0.0349	
No of id	406	81	3 421	1 405	230	
110.0110	100	Panel	$\frac{0.000}{\text{C} \cdot \text{Monthly}}$	1,100	230	
Variables	BRA SR +1		IND SR 411	CHL SR +11	SOA SR 41	
SENT	0.0724***	_0.0210**	_0 2011***	-0.0265***		
SLIVI	(0.0724)	(0.0195)	(0.0129)	(0.0203)	(0.0141)	
VIX	0.0004***	0.0000	-0.0058***	0.0002	-0.0097***	
V 17X	(0,0004)	(0,0000)	(0.0012)	(0.0002)	(0.0023)	
Econ US	-0 1049***	-0.0083	-0.0320***	-0 5989***	-0.0708***	
Leon_05	(0.0084)	(0.0108)	(0.0000)	(0.1071)	(0.0111)	
FXC	-0.0060	0.0020	0.0080***	-1 7203***	-0.0351***	
LAC	(0.0128)	(0.0020)	(0.0013)	(0.2707)	(0.0075)	
FPU	-0.0003***	(0.00+0)	-0.00013	0.0016***	0.0006	
LIU	(0.0003)	(0.0001)	(0.0003)	(0.0010)	(0,0000)	
MV week	0.2126***	(0.0001)	1 1125***	18 5285***	0.4086	
WIV_WCCK	(0.0610)	(0.0264)	(0.1313)	(3,8005)	(0.5672)	
SP I 1	(0.0017)	(0.0204)	0.00/0***	-0.0513***	(0.3072)	
SK_L1	(0.0043)	(0.0153)	(0.004)	(0.0013)	(0.0002)	
SP 12	(0.00+3)	-0.0236***	-0.0315***	-0.0516***	(0.0032)	
SK_L2	(0.0040)	(0.0230)	(0.0018)	(0.0050)	(0.0043)	
SP I 3	0.0039)	0.0238**	0.0116***	0.0306***	0.0039)	
SK_L5	(0.0220)	-0.0238	(0.0013)	(0.0057)	-0.0088	
SD IA	(0.0044) 0.0120***	0.0050	0.0015)	(0.0037)	(0.0049) 0.0127***	
SK_L4	(0.0130)	-0.0039 (0.0067)	(0.0073)	(0.0233)	$(0.015)^{-0.015}$	
Constant	(0.0040) 0 $4/10***$	(0.0007)	2 1074***	12 022 4***	0.0045)	
Constant	-0.4410	0.2770	-3.12/4	13.0234	-0.0243	
Oha	(0.1189)	(0.1943)	(0.2793)	(2.1393)	(1.4030)	
D_2	/,/00	1,005	11,009	1/,1/1	J,400 0.1159	
	0.2273	0.1492	0.1293	0.2739	0.1138	
INO. OF 10	383	81	3,333	1,400	228	

This table reports sentiment and future return relationship on daily, weekly, and monthly intervals for BRICS countries. The dependent variables BRA_SR_{t+1}, RUS_SR_{t+1}, IND_SR_{t+1}, CHI_SR_{t+1}, and SOA_SR_{t+1} denotes lagged stock returns of Brazil, Russia, India, China and South Africa respectively. The exogenous variable SENT is the investor sentiment, while control variables include VIX, Econ_US, EXC, EPU, MV_month, MV_week, SR_L1, SR_L2, SR_L3, and SR_L4. VIX is implied volatility index, Econ_US is ADS index, EXC is exchange rate, EPU is economic policy uncertainty, MV_month is monthly market volatility, MV_week is weekly market



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volatility, SR_L1 denotes first lag of returns, SR_L2 denotes second lag of returns, SR_L3 denotes third lag of returns, while SR_L4 denotes fourth lag of returns. Year-weekday fixed effects, year-week fixed effects and yearmonth fixed effects were used in daily, weekly and monthly data respectively. Standard errors are clustered at yearweekday, year-week and year-month in daily, weekly and monthly data respectively. ***, **, and *indicates the significance level at 1%, 5%, and 10% respectively.

All our control variables state a significant association with future stock returns across markets. China market returns seem highly sensitive to VIX, exchange rates and market volatility, indicating vulnerability to international pressures, whereas Brazil and India benefit from higher volatility. US economic indicators show mostly negative impacts on market returns indicating that strong U.S. economic conditions may lead to fund outflows or capital shifts from emerging markets, adversely impacting their returns. An exceptionally strong negative impact between U.S. economic conditions and China monthly returns is observed which could be due to the competitive pressures or shifts in trade and policy responses sensitive to U.S. economic changes. Further, Brazil and India experience positive market volatility impacts, indicating that these markets might attract more trading activity or risk-taking during volatile periods. Lastly, the monthly data shows consistent mean reversion across lagged returns, particularly in China, India, and Russia, indicating correction dynamics that stabilize over a monthly timeframe. Our results are in line with the previous studies of Ahn and Hambusch (2024), Da et al. (2015), Dash and Maitra (2018), Eyden et al. (2023), Gao et al. (2020), Reis and Pinho (2020), Ung et al. (2023), Yadav and Chakraborty (2023), Zhang (2023), Wang and Huang (2024) and Shahabuddin and Ali (2024).

		Panel A	A: Daily		
Variables	BRA_SENT_{t+1}	RUS_SENT _{t+1}	IND_SENT _{t+1}	CHI_SENT _{t+1}	SOA_SENT _{t+1}
SENT	-0.4129***	-0.4104***	-0.3115***	-0.3928***	-0.3573***
	(0.0003)	(0.0006)	(0.0001)	(0.0002)	(0.0002)
VIX	0.0000***	-0.0000***	-0.0002***	0.0008***	-0.0010***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Econ_US	0.0007***	-0.0010***	0.0002***	-0.0011***	0.0001***
	(0.0000)	(0.0001)	(0.0000)	(0.0000)	(0.0000)
EXC	-0.0122***	-0.0005***	0.0009***	0.0117***	0.0046***
	(0.0002)	(0.0000)	(0.0000)	(0.0002)	(0.0001)
SR_L1	-0.0540***	0.0106**	-0.0025***	-0.1118***	0.0194***
	(0.0034)	(0.0048)	(0.0008)	(0.0025)	(0.0032)
SR_L2	-0.0165***	0.0102*	-0.0163***	0.0460***	-0.0065**
	(0.0031)	(0.0056)	(0.0008)	(0.0024)	(0.0029)
SR_L3	-0.0323***	-0.0258***	0.0174***	0.0360***	0.0127***
	(0.0029)	(0.0061)	(0.0009)	(0.0024)	(0.0032)
SR_L4	0.0003	0.0070	0.0094***	0.0361***	0.0369***
	(0.0032)	(0.0062)	(0.0009)	(0.0025)	(0.0037)
Constant	0.0367***	0.0235***	-0.0230***	-0.1130***	-0.0098***
	(0.0007)	(0.0012)	(0.0003)	(0.0015)	(0.0007)
Obs.	1,165,976	262,152	11,259,089	2,766,215	808,665
\mathbb{R}^2	0.1877	0.1793	0.1319	0.1838	0.1533
No. of id	406	81	3,423	1,405	230
		Panel B	: Weekly		
Variables	BRA_SENT _{t+1}	RUS_SENT _{t+1}	IND_ SENT _{t+1}	CHI_ SENT _{t+1}	SOA_ SENT t+1
SENT	0.0084***	0.0482***	0.0224***	-0.0071***	0.0565***
	(0.0009)	(0.0021)	(0.0002)	(0.0005)	(0.0010)
VIX	0.0000 * * *	-0.0000***	-0.0017***	-0.0013***	-0.0025***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0001)
Econ_US	-0.0005***	0.0018***	-0.0019***	0.0036***	0.0004***
	(0.0001)	(0.0001)	(0.0000)	(0.0000)	(0.0001)
EXC	0.0525***	-0.0016***	0.0028***	0.0379***	0.0013***
	(0.0006)	(0.0001)	(0.0000)	(0.0009)	(0.0003)

Table 5: Investor Sentiment Reversal



MV week

0.0398***

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-0.0775***

0.0370***

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-0.4115***	-0.0410***
(0.0093)	(0.0069)

	(0.0010)	(0.0090)	(0.0003)	(0.0093)	(0.0069)
SR L1	0.0239***	0.0117*	-0.0172***	-0.0902***	0.0191***
~	(0.0036)	(0.0065)	(0.0010)	(0.0026)	(0.0041)
SR L2	0.0671***	-0.0105	0.0179***	-0.0225***	0.0512***
_	(0.0039)	(0.0082)	(0.0009)	(0.0026)	(0.0051)
SR L3	0.0483***	0.0011	0.0142***	0.0283***	-0.0047
_	(0.0041)	(0.0088)	(0.0009)	(0.0027)	(0.0043)
SR L4	-0.0336***	0.0003	0.0082***	0.0540***	0.0103***
	(0.0037)	(0.0065)	(0.0009)	(0.0027)	(0.0036)
Constant	-0.0970***	0.1366***	-0.1932***	-0.2699***	0.0733***
	(0.0020)	(0.0052)	(0.0013)	(0.0059)	(0.0034)
Obs.	232,628	52,039	2,257,896	550,887	160,073
\mathbb{R}^2	0.0794	0.0834	0.0896	0.1280	0.0983
No. of id	406	81	3,422	1,405	230
		Panel C:	Monthly		
Variables	BRA_SENT _{t+1}	RUS_SENT _{t+1}	IND_SENT _{t+1}	CHI_SENT _{t+1}	SOA_ SENT t+1
SENT	-0.0067**	-0.0603***	-1.4316***	-0.0669***	-0.3074***
	(0.0075)	(0.0197)	(0.0330)	(0.0195)	(0.0337)
VIX	-0.0001***	0.0001***	-0.0275***	-0.0037**	0.0063***
	(0.0000)	(0.0000)	(0.0014)	(0.0016)	(0.0016)
Econ_US	0.2204***	-0.0829***	-0.1230***	-0.0031	0.0426***
	(0.0034)	(0.0073)	(0.0051)	(0.0093)	(0.0158)
EXC	0.2492***	-0.0387***	0.0703***	3.0255***	-0.0450***
	(0.0048)	(0.0038)	(0.0012)	(0.2523)	(0.0080)
EPU	0.0001***	0.0008***	0.0020***	-0.0053***	0.0003
	(0.0000)	(0.0001)	(0.0001)	(0.0005)	(0.0001)
MV_week	-0.1031***	0.0219	-0.1266	-11.5285***	3.7698***
	(0.0146)	(0.0184)	(0.1883)	(1.6554)	(0.4697)
SR_L1	0.0008	0.0011	0.0045***	0.0180***	0.0224***
	(0.0013)	(0.0047)	(0.0006)	(0.0043)	(0.0057)
SR_L2	0.0023*	0.0132**	-0.0030***	0.0135***	0.0109
	(0.0012)	(0.0059)	(0.0005)	(0.0042)	(0.0110)
SR_L3	-0.0067	0.0089	0.0033***	0.0180***	-0.0018
	(0.0049)	(0.0057)	(0.0006)	(0.0039)	(0.0075)
SR_L4	0.0058***	0.0029	-0.0059***	0.0234***	-0.0146
	(0.0022)	(0.0056)	(0.0006)	(0.0038)	(0.0116)
Constant	-0.3234***	0.7479***	-2.8695***	-16.0625***	-9.4372***
	(0.0266)	(0.1481)	(0.4329)	(1.2011)	(1.2262)
Obs.	7,706	1,694	71,743	17,193	5,219
R [∠]	0.8933	0.7292	0.9120	0.9295	0.6442
No. of id	382	81	3,333	1,399	228

The table states the investor sentiment reversal for our sample countries at daily, weekly, and monthly frequency. Here, BRA_SENT_{t+1}, RUS_SENT_{t+1}, IND_SENT_{t+1}, CHI_SENT_{t+1}, and SOA_SENT_{t+1} denotes lagged sentiment for Brazil, Russia, India, China and South Africa respectively. SENT is sentiment, controls are VIX, Econ_US, EXC, EPU, MV_month, MV_week, SR_L1, SR_L2, SR_L3, and SR_L4. VIX is implied volatility index, Econ_US is ADS index, EXC is exchange rate, EPU is economic policy uncertainty, MV_month is monthly market volatility, MV_week is weekly market volatility, SR_L1 denotes first lag of returns, SR_L2 denotes second lag of returns, SR_L3 denotes third lag of returns, while SR_L4 denotes fourth lag of returns. Year-weekday fixed effects, year-week fixed effects and year-month fixed effects were used in daily, weekly and monthly data respectively. Standard errors are clustered at year-weekday, year-week and year-month in daily, weekly and monthly data respectively. ***, **, and *indicates the significance level at 1%, 5%, and 10% respectively.



Investor Sentiment Reversal

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Table 5 states empirical results of our country-specific sentiment reversal across different time frames for our sample countries. Significantly negative sentiment coefficients in daily and monthly data indicate that our sentiment revert rather than persist in the following periods across financial markets. Such patterns align with intraday trading behaviors and corrective mechanisms (daily and monthly) in emerging markets where sentiment adjustments are more pronounced over longer time frames. But unlike the daily and monthly reversal trends, weekly sentiment exhibits sentiment persistence in most markets, except China. This suggests that initial weekly optimism or pessimism continues, which could be due to slower information processing or delayed market responses at weekly intervals. Further, our control variables displayed significant association with the next period sentiment. The negative impact of VIX and market volatility in most markets indicates that heightened market volatility generally tempers sentiment, reflecting risk aversion and a cautious approach by investors. Moreover, the diverse impacts of U.S. economic performance highlight different sensitivities across emerging markets, with some regions benefiting from U.S. economic strength and others reacting negatively. Further, exchange rate movements significantly influence sentiment in China, likely due to its trade-dependent economy. This suggests that currency stability may be crucial for investor confidence. Lastly, the investor sentiment showed more persistence at monthly analysis as compared to daily and weekly intervals indicating a more lasting sentiment influence on market over longer periods. These outcomes comply with previous researchers like Dahmani and Makram (2024), Rodriguez (2024), Al-Zoubi (2024), Duxbury and Wang (2024), Gao et al. (2020), and Xu and Zhou (2018). We used the two-step system GMM (Generalized Method of Moments) approach for the robustness of our results and found similar results.

CONCLUSION AND POLICY IMPLEMENTATION

This research is devoted to explore an in-depth dynamic sentiment-return relationship across equity markets of BRICS countries for a period from year 2013-2022. First, we developed our investor sentiment at daily, weekly and monthly frequency by utilizing google search trends data and then assess the sentiment-return relationship by examining i) sentiment-return co-movements, ii) sentiment-return predictability and iii) sentiment-reversal across countries at different intervals. Our empirical analysis highlighted i) a significantly positive sentiment-return co-movements on average across countries, ii) our investor sentiment severed as a contrarian predictor of country-level returns and iii) the country-specific sentiment reverts in daily and monthly analysis rather persist in the following periods across countries.

Our findings are expected to offer invaluable insights for scholars, institutional investors, policymakers, and financial regulators and facilitates in providing a deeper understanding of the role of behavioral factors in shaping market dynamics in emerging economies. To track market sentiment in the real world, extensive market monitoring mechanisms should be established by policy makers and financial regulators. By combining the current investor sentiment measures along with the traditional market indicators, financial regulators can gain early insights of the potential market volatility or bubble formation. Household google trends that depict the real-world investors interests and moods through google search volume can be integrated with other standard measures to reveal the sentiment-driven market pressures. Such an approach can aid policy makers and financial regulators in mitigating the impacts of extreme sentiment swings on market stability.

This study examines sentiment driven market movements in BRICS countries which encompasses distinct economic, political, and cultural characteristics. As a limitation, the study outcomes may not fully account for those unique factors, which could lead to potential biases in generalizability of results. Further, the findings may not be extended to developed economies or other emerging markets prior further investigation. Moreover, the impact of macroeconomic factors, global events and policy changes on sentiment-return association have not been studied in this work which may encourage future researchers to enrich our understanding of investor behavior.

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