Journal of Kyzylorda Scholarly Review

P-ISSN:3006-0265 | E-ISSN:3007-4681. Published by the Open University of Kyzylorda
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https://bulletin.ouk.kz/index.php/bulletin/index




# THE IMPACT OF INVESTOR SENTIMENT ON STOCK RETURNS AND TRADING VOLUME: AN APPLIED STUDY OF THE IRAQ STOCK EXCHANGE FOR THE PERIOD (2021–2025)

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**Abstract**. The purpose of this research is to investigate the effect of investor sentiment on the returns of stocks and trading volume in the Iraqi Stock Exchange and to test if this effect is greater for small-cap stocks. The sentiment index was created monthly with the principal component approach developed by Baker and Wurgler (2006) and based on three market indicators which were used after the effects of oil prices, the geopolitical risk index and the parallel exchange rate were removed from the data. The study was based on 60 observations made during the months ranging from 2021 to 2025, obtained from the annual yearbook, and the annual and monthly reports of the Iraq Stock Exchange, and the annual reports of the Securities Commission. The monthly aggregates were matched to the official annual totals. The following methods were applied: regression with Newey – West standard errors, a vector autoregression (VAR) model, Granger causality tests, and impulse response functions, analysis of small cap and large cap portfolio. The results showed that the investor sentiment had a positive impact on market returns at the 10% significance level, and a positive and significant impact on the return of small-cap stocks relative to the return of large-cap stocks at the 5% significance level. The following return reversal effect and effect of sentiment on subsequent trading volume were not confirmed, however. In contrast, it was discovered that trading volume caused investor sentiment to Granger. On this interpretation, sentiment in the Iraqi market is driven, rather than causes, by trading activity, and that its impact is limited to small companies where most trading is done by individuals.

**Key words:** Investor sentiment, stock returns, trading volume, size effect, non-Iraqi investors, Iraq Stock Exchange.

## Introduction

The efficient market hypothesis is based on the following assumptions: (1) stock prices reflect available information and (2) that changes in investor sentiment don't systematically affect prices because they are corrected by arbitrageurs. But irrational investors can push prices away from their fundamentals as limits on arbitrage can prevent full correction as shown in behavioral finance literature (De Long et al., 1990; Baker & Wurgler, 2007). The Iraq Stock Exchange has the required characteristics to test this hypothesis, such as predominance of individual investors, limited number of institutional investors, absence of short selling, and low number of stocks trading. The following questions are used to formulate the research problem:

1. Is the reaction of investors to sentiment a factor in market returns?
2. Does investor sentiment improve after a period of decline in returns?
3. Do investor sentiments have any impact on the subsequent volume of trading?
4. Is the impact of investor sentiment different for small-cap and/or large-cap stocks?

### Research Significance

This study is significant in three ways. The first one is an academic one, since the study aims to build an index for investors' sentiment in the Iraqi stock market, and this is one of the missing things that foreign studies on the market have failed to achieve, as it is generally based on questionnaires. The second is methodological, because all sources of the figures were traced, the monthly values were aggregated and compared with official figures for annual and quarterly totals, and the specifications for the models were determined prior to estimation. The third is, of course, functional: the results could help investors and the Securities Commission gain insight into the causes of price volatility, especially small caps.

### Research Objectives

1. To construct a monthly investor sentiment index for the Iraq Stock Exchange.

2. To examine the effect of investor sentiment on market returns in the same month and in the following month.

3. To examine the effect of investor sentiment on trading volume and the direction of the causal relationship between them.

4. To test whether the effect of investor sentiment is stronger for small-cap stocks.

### Research Hypotheses

- H1: Investor sentiment has a positive and statistically significant effect on market returns in the same month.

- H2: An increase in investor sentiment is followed by a statistically significant decline in market returns in the following month (the reversal effect).

- H3: Investor sentiment has a positive and statistically significant effect on trading volume in the following month.

- H4: The effect of investor sentiment on the returns of small-cap stocks is greater than its effect on the returns of large-cap stocks.

### Research Population and Period

The research population includes all companies listed in the Iraq Stock Exchange regular market which includes around 104 companies. The study period will be from January 2021 to December 2025, covering 60 months. 2021 was chosen as the starting point as a full year of monthly statistical data on the earlier years was not available from the sources of published yearbooks, and the published yearbook for 2018 does not include monthly tables. To test the fourth hypothesis, monthly closing prices for all the companies were made available in a verifiable format for 36 months (2021, 2022 and 2025).

### Data Sources and Quality Control

**Table 1.** Monthly Data Sources

| Year | Source | Tables Used | Verification / Validation |
|---|---|---|---|
| **2021** | Iraq Stock Exchange (ISX) Annual Book 2021 | Monthly trading indicators, non-Iraqi trading (purchases and sales), monthly closing prices | Sum of months = Annual total (IQD 812.7 billion) |
| **2022** | Iraq Stock Exchange (ISX) Annual Report 2022 | Tables (1), (3), and (4) | Sum of months = IQD 521.5 billion |
| **2023** | Iraq Stock Exchange (ISX) Annual Report 2023 | Tables (1), (3), and (4) | Sum of months = IQD 671.8 billion and 155,920 trades |
| **2024** | ISX Monthly Reports (January–October) & Arab Monetary Fund (AMF) Monthly Bulletin of Arab Capital Markets (November and December) | Trading summary and non-Iraqi trading | Reconciliation of quarterly aggregates with the Securities Commission's reports for the first three quarters |
| **2025** | Iraq Stock Exchange (ISX) Annual Report 2025 | Tables (3), (4), (5), and (11) | Sum of months = IQD 529.6 billion |

Note that the sources did not include monthly reports for November and December 2024. So, ISX60 index and number of traded shares were taken from the bulletin of Arab Monetary Fund. The total number of shares traded in the two months was equal to the difference between the total for the year reported by the Securities Commission and the total of the available monthly reports. The number of transactions for the two months and the trading activity of non-Iraqi investors were allocated based on the proportion of trading value according to US dollars. These two months were removed from the estimates for the robustness tests. The researcher got the Brent crude oil prices, Geopolitical Risk Index (Caldara and Iacoviello, 2022) and the parallel exchange rate from the databases employed in the researcher's previous studies during the same period.

### Building the Investor Sentiment Index and Measurement of Variables.

The study used indirect market-based indicators of investor sentiment (following Baker and Wurgler 2006 and Baker and Stein 2004). These proxies were chosen because official monthly data were available:

**Table 2.** Research Variables and Measurement Methods

| Variable | Symbol | Measurement Method |
|---|---|---|
| **Net Non-Iraqi Buying** | NIB | Non-Iraqi Investors' Purchase Value - Non-Iraqi Investors' Selling ÷Purchases + Sales |
| **Market Breadth** | BREADTH | Number of traded companies during the month |
| **Trading Intensity** | TPS | Number of Trades ÷Number of Sessions |
| **Sentiment Index** | SENT | First principal component of the three measures orthogonalized from macroeconomic variables, standardized (Mean 0, Std. Dev. 1) |
| **Sentiment Index for Volume Equation** | SENT_V | First principal component of NIB and BREADTH only |
| **Market Return** | R | First difference of the natural logarithm of the ISX60 index |
| **Trading Volume** | VOL | Trading Value ÷ Number of Sessions |
| **Small Minus Big Return Spread** | SMB | Average monthly return of the bottom third of companies by market capitalization - Average return of the top third |
| **Control Variables** | dBRENT, dGPR, dFX | First difference of the natural logarithm of Brent price, Geopolitical Risk Index (GPR), and parallel exchange rate |

The turnover ratio measure was to be included in the analysis, but there was no data available for the ratio for the period (2022-2024). To be sure, there was some mechanical overlap between the sentiment measure and dependent variable in the volume-equation sentiment index (SENT_V), which was also removed. All of these decisions were made in a specification file prior to estimation of models. The companies were categorized by year into three groups based on market cap at the end of the previous calendar year to calculate SMB. A company was not included in the year in which the number of its shares changed because it was not feasible to adjust its return for bonus shares and subscription issues.

**Statistical Models and Methods**

1. Descriptive statistics and the Jarque–Bera test for normality.

2. The Augmented Dickey–Fuller unit root test (Dickey and Fuller, 1979) and the Phillips–Perron test (Phillips and Perron, 1988).

3. Principal component analysis to construct the index.

The following regression models were estimated using Newey–West (1987) standard errors with a lag length of three months:

- :H1$R_t = \alpha + \beta\, SENT_t + \gamma' X_t + \varepsilon_t$
- :H2$R_{t+1} = \alpha + \beta\, SENT_t + \phi R_t + \gamma' X_{t+1} + \varepsilon_{t+1}$
- :H3$VOL_{t+1} = \alpha + \beta\, SENT_t^V + \phi VOL_t + \gamma' X_{t+1} + \varepsilon_{t+1}$
- :H4$SMB_t = \alpha + \beta\, SENT_t + \varepsilon_t$

where $X_t$ represents the three control variables.

5. The Vector Autoregression (VAR) model (Sims, 1980) for the variables (SENT, R, VOL), with the lag length determined using the Akaike Information Criterion (AIC), the Granger causality test (Granger, 1969), and impulse response functions based on

Cholesky decomposition, with 90% confidence intervals generated using the bootstrap method (2,000 replications).

## Theoretical Framework and Previous Studies

### The Concept of Investor Sentiment

Baker and Wurgler (2007) describe investor sentiment as investors' expectations regarding future cash flows and investment risks that are disconnected from the information available. The theory behind its effects is based on two assumptions: (1) that there are investors who trade based on noise instead of information, and (2) that limits to arbitrage exist which prevent rational investors from correcting prices quickly (De Long et al., 1990). This means that waves of optimists temporarily push prices up past their fundamental levels and when they subside, prices fall.

### Investor Sentiment is measured.

There are two methods of measuring investor sentiment: direct measures, through investor opinion surveys, and indirect, derived from market data. Baker and Wurgler (2006) suggested a composite index that combines six market measures: closed-end fund discounts, turnover, initial public offerings, first-day returns, proportion of equity in new issues, and dividend premium. They calculated the first principal component, taking out the business cycle. Baker and Stein (2004) showed that liquidity and trading activity could be a good indicator of sentiment as traders are overconfident and trade more when they are more optimistic. Huang et al. (2015) created a technique to isolate the index's component that is most closely correlated with returns. The Iraq market is not suitable for the application of the original index since there are no closed-end investment funds or initial public offerings in the market. Hence, in this study, market measures are used that are available on a monthly basis.

### Investor Sentiment and Stock Returns

Brown and Cliff (2004) discovered that there was a high correlation between investor sentiment and contemporaneous market returns and this did not mean that their investor sentiment could accurately predict short term returns. They found that high sentiment is accompanied by lower returns on subsequent trades of small stocks, stocks initially listed on the market, volatile stocks, and non-dividend-paying stocks, because such stocks are harder to value and have greater arbitrage costs. Schmeling (2009) conducted a study across 18 countries which identified that the impact of sentiment is stronger in those countries that have less honest markets and more herding behaviour in their culture. Kumar and Lee (2006) demonstrated that individual investors' trades tend to be correlated and account for a share of the common variation in the returns of small stocks. Stambaugh et al. (2012) discovered that the price anomalies are more pronounced after sentiment has been high.

### Investor Sentiment and Trading Volume

The overconfidence literature relates past market performance to trading activity. Statman et al. (2006) discovered that returns in the past are followed by increased trading volume, and Griffin et al. (2007) confirmed this correlation in 46 countries, including emerging markets. This implies that the direction of sentiment and trading might not be solely from sentiment to trading activity and returns, but also the other way round.

**Recent Previous Studies**

Studies in the Iraqi Context

1. Al-Jabouri and Oleiwi (2020): This study aims to examine the impact of the investor sentiment on the returns and risks of financial assets in the Iraq Stock Exchange and Saudi Stock Market in banking, industrial and telecommunications sectors. Trading volume, market capitalization and turnover were used to measure sentiment using monthly data from the period (2013–2018). The study identified a statistically significant sentiment effect on returns in the two markets that varied. It also noted that there was negative sentiment in the Iraqi market while there was positive sentiment in the Saudi market.

2. Ali and Hameedi (2025): This study examined the effect of the comparability of accounting information on accounting conservatism and investor sentiment using 120 observations from commercial banks listed on the Iraq Stock Exchange. Sentiment was measured using stock turnover and the price-to-earnings ratio. The study found no statistically significant effect of accounting conservatism on investor sentiment.

3. Jasim and Chaibi (2025): This study investigated the effect of market risk disclosure on investor behavior among 20 banks listed on the Iraq Stock Exchange over the period (2015–2023). The findings indicated that market risk disclosure had a positive and statistically significant effect on investor responses, with a greater effect than liquidity risk disclosure.

Studies in Arab Markets

4. Chowdhury (2021): This study constructed a sentiment index for each Gulf Cooperation Council (GCC) market using principal component analysis and examined its relationship with idiosyncratic volatility and stock returns. The findings indicated that sentiment affected returns in all GCC markets.

5. Hkiri and Aloui (2025): This study examined the relationship between investor sentiment and the behavior of the Saudi financial market over the period (2005–2021), using indicators derived from Google search volume that distinguished between positive and negative sentiment and applying wavelet analysis. The findings showed that negative sentiment had a stronger and more persistent effect on returns and volatility, with the financial, banking, and insurance sectors being the most sensitive.

Recent International Studies

6. Debata et al. (2018): This study investigated the effects of domestic and foreign investor sentiment on liquidity in emerging markets. The findings indicated that higher sentiment was associated with increased liquidity and that foreign investor sentiment had an independent, statistically significant effect.

7. Zhou (2018): This study reviewed methods for measuring sentiment, including market-based measures, surveys, media text, and internet search data. It concluded that composite market-based indices remain the most widely used, while emphasizing the need to remove the effects of fundamental economic factors.

8. Jiang et al. (2019): This study constructed a managerial sentiment index based on the tone of financial reports and conference calls and found that it negatively predicted aggregate market returns.

9. Gao et al. (2020): This study constructed a sentiment index based on Google search volume across a large number of countries. The findings indicated that the

index predicted return reversals in subsequent weeks and that global sentiment was transmitted to local markets.

The current study is different from previous Iraqi studies in four aspects: Firstly, the overall level of the market was used to construct the monthly composite index with principal component analysis, instead of using a single measure in a sample of companies. Secondly, it eliminates the changes of oil price, geopolitical risk, and exchange rate as determinants of the Iraqi economy. Thirdly, it considers the net trading of non-Iraqi investors as an independent measure. Fourthly, it considers changes in the monthly trading volume, changes in the overall change of returns, and changes in the difference between returns of small and large companies, covering the recent period (2021-2025).

## Empirical Analysis

### Descriptive Statistics

**Table 3.** Descriptive Statistics of Variables (60 Months)

| Variable | Mean | Std. Dev. | Minimum | Maximum | Skewness | Kurtosis | Jarque-Bera (p-value) |
|---|---|---|---|---|---|---|---|
| R | 0.011 | 0.051 | −0.102 | 0.141 | 0.51 | 3.27 | 2.74 (0.25) |
| VOL | 21.53 | 0.654 | 19.96 | 23.30 | 0.08 | 3.25 | 0.22 (0.90) |
| NIB | −0.028 | 0.391 | −0.943 | 0.655 | −0.40 | 2.70 | 1.86 (0.39) |
| BREADTH | 69.47 | 7.09 | 51 | 80 | −0.51 | 2.27 | 3.93 (0.14) |
| TPS | 6.457 | 0.275 | 5.659 | 6.973 | −0.61 | 3.43 | 4.16 (0.13) |
| SENT | 0.000 | 1.000 | −2.741 | 1.742 | −0.40 | 2.73 | 1.75 (0.42) |

The average monthly return of the index was (1.1%). Net purchases by non-Iraqi investors ranged from almost all net selling to net purchases of (65%), and the monthly amount of companies for trading ranged from (51) to (80). There is no evidence against normality for any of the variables at the (5%) level of significance.

### Construction of the Investor Sentiment Index

**Table 4.** Principal Component Analysis (PCA) Results

| Measure / Metric | Loading on First Principal Component (SENT) | Correlation with BREADTH | Correlation with TPS |
|---|---|---|---|
| **NIB** | 0.107 | −0.05 | 0.15 |
| **BREADTH** | 0.695 | 1.00 | 0.70 |
| **TPS** | 0.711 | 0.70 | 1.00 |
| **Proportion of Explained Variance** | 57.0% | — | — |

The index seems to be mostly driven by the activity of domestic investors, measured by trading breadth and intensity, whereas the loading of net purchases by non-Iraqi investors is weak, as their activity is not correlated with either of the domestic activity indicators. The finding is meaningful because it implies that the non-Iraqi investor's sentiment is independent of the domestic investor sentiment.

### Unit Root Tests

**Table 5.** ADF and PP Unit Root Tests at Level (with Constant**)**

| Variable | ADF | PP | Decision |
|---|---|---|---|
| **R** | −9.03*** | −9.02*** | Stationary |
| **VOL** | −7.23*** | −7.22*** | Stationary |
| **NIB** | −6.80*** | −6.77*** | Stationary |

| | | | |
|---|---|---|---|
| **BREADTH** | −2.23 | −2.02 | Non-Stationary |
| **TPS** | −3.55*** | −3.52** | Stationary |
| **SENT** | −2.79* | −2.69* | Stationary at 10% level |
| **dBRENT, dGPR, dFX** | < - 4.7*** | < - 6.8*** | Stationary |

The critical value at the (5%) significance level is −2.91. ***, **, and * denote statistical significance at the (1%), (5%), and (10%) levels, respectively.

All dependent variables are stationary, and the index is stationary at the (10%) significance level, whereas the number of companies traded exhibits high persistence, which is taken into account when interpreting the results.

**Hypothesis Testing Using Regression**

**Table 6.** Regression Model Results (Newey-West Standard Errors)

| **Variable** | **H1** $R_t$ | **H2** $R_{t+1}$ | **H3** $VOL_{t+1}$ |
|---|---|---|---|
| **Sentiment (SENT or SENT_V)** | 0.0114 (1.96) [0.055] | 0.0029 (0.45) [0.657] | −0.0580 (−0.60) [0.552] |
| **Lagged Dependent Variable** | — | −0.1883 (−1.59) [0.117] | 0.0657(0.51) [0.613] |
| **dBRENT** | 0.1397 (1.45) | 0.1643 (1.55) | −0.1340 (−0.11) |
| **dGPR** | 0.0016 (0.05) | 0.0093 (0.29) | 0.2162 (0.63) |
| **dFX** | −0.1328 (−0.47) | 0.1117 (0.30) | −7.4738 (−1.74) |
| **Number of Observations** | 60 | 59 | 59 |
| **$R^2$** | 0.091 | 0.088 | 0.058 |

The values in parentheses () represent the t-statistic, while the values in square brackets [] represent the p-value.

Hypothesis One: Investor sentiment has a positive effect on market returns in the same month. A one-standard-deviation increase in the index is associated with an increase of approximately (1.1) percentage points in the monthly return, an effect that is statistically significant at the (10%) level (p = 0.055). Accordingly, the first hypothesis is accepted at the (10%) significance level.

Hypothesis Two: The sentiment coefficient in the subsequent-return equation was positive and statistically insignificant, and no reversal effect was observed at a three-month horizon either (β = 0.0022, p = 0.833). Accordingly, the second hypothesis is rejected.

Hypothesis Three: The sentiment index had no statistically significant effect on subsequent trading volume, whether measured using the index specific to the volume equation, the full index, or net purchases by non-Iraqi investors individually. Accordingly, the third hypothesis is rejected.

### Vector Autoregression Model

The Akaike Information Criterion selected one lag, and the largest root of the model was (0.78), indicating that the model is stable.

**Table 7.** Granger Causality Test

| Null Hypothesis | F-Statistic | p-value | Decision |
|---|---|---|---|
| **SENT does not Granger-cause R** | 0.04 | 0.836 | Fail to reject null (Accept Null) |
| **SENT does not Granger-cause VOL** | 0.05 | 0.827 | Fail to reject null (Accept Null) |
| **R does not Granger-cause SENT** | 0.50 | 0.483 | Fail to reject null (Accept Null) |
| **VOL does not Granger-cause SENT** | 6.20 | 0.016 | Reject null |
| **VOL does not Granger-cause R** | 1.30 | 0.260 | Fail to reject null (Accept Null) |
| **R does not Granger-cause VOL** | 0.01 | 0.932 | Fail to reject null (Accept Null) |

**Table 8.** Impulse Response Functions (IRF) to a One Standard Deviation Shock in Sentiment

| Month | Response of R | 90% Confidence Interval | Response of VOL | 90% Confidence Interval |
|---|---|---|---|---|
| **0** | 0.0145 | [0.0022, 0.0254] | 0.133 | [−0.037, 0.277] |
| **1** | −0.0027 | [−0.0115, 0.0050] | 0.021 | [−0.073, 0.128] |
| **2** | 0.0008 | [−0.0037, 0.0049] | 0.010 | [−0.054, 0.083] |
| **3** | 0.0003 | [−0.0030, 0.0031] | 0.008 | [−0.036, 0.057] |

The impulse response functions confirm the regression results: returns respond positively and significantly to investor sentiment in the same month, after which the effect dissipates without any statistically significant reversal. A noteworthy finding is that trading volume Granger-causes investor sentiment, rather than the reverse. In other words, an increase in trading value in one month is followed by an increase in the number of companies traded and the intensity of transactions in the subsequent month. This finding is consistent with the results of Statman et al. (2006) and Griffin et al. (2007), who found that market activity generates waves of optimism and trading.

### Testing the Fourth Hypothesis (Small and Large Companies)

The test covered (36) months across the years (2021, 2022, and 2025). The number of companies ranged from (52) to (76) per annum, the smallest-third and largest-third companies being (17–26) respectively. 2024 was not included as the monthly closing prices of individual firms were not verifiably accurate enough to extract from the monthly reports. For the year 2022 only companies with closing prices in December of the same year as reported closing prices for 2022 by the Securities Commission received data.

**Table 9.** Effect of Sentiment on Small and Large Firm Returns

| Dependent Variable | SENT Coefficient | Std. Error | t-Statistic | p-value | R2 |
|---|---|---|---|---|---|
| **SMB (Small Minus Big)** | 0.0163 | 0.0061 | 2.68 | 0.011 | 0.151 |
| **Small Firm Portfolio Return** | 0.0040 | 0.0033 | 1.20 | 0.237 | 0.017 |
| **Large Firm Portfolio Return** | −0.0124 | 0.0052 | −2.37 | 0.023 | 0.119 |
| **SMB in the Following Month ($t+1$)** | 0.0158 | 0.0097 | 1.63 | 0.113 | 0.128 |

The results indicate that a one-standard-deviation increase in investor sentiment is associated with small companies outperforming large companies by approximately (1.6) percentage points in the same month, an effect that is statistically significant at the (5%) level. Accordingly, the fourth hypothesis is accepted. It is noteworthy that

this difference is driven primarily by lower returns on large companies during months of high sentiment, whereas the increase in small-company returns is positive but not statistically significant when considered individually. No reversal was observed in the subsequent month.

**Robustness Tests**

**Table 10.** Robustness Tests (Sentiment Coefficient and $p$-value)

| Test / Specification | H1 | H2 | H3 | H4 |
|---|---|---|---|---|
| **Baseline Model** | 0.0114 [0.055] | 0.0029 [0.657] | −0.0580[0.552] | 0.0163[0.011] |
| **Excluding November and December 2024** | 0.0117[0.060] | 0.0035[0.613] | −0.0570[0.566] | — |
| **Unorthogonalized Sentiment Index** | 0.0117[0.056] | 0.0020[0.767] | −0.0580[0.552] | — |
| **Equal-Weighted Sentiment Index** | 0.0120[0.076] | 0.0017[0.818] | −0.0580[0.552] | — |
| **Full Index in Volume Equation** | — | — | 0.0350[0.673] — | — |
| **Net Non-Iraqi Buying Alone** | 0.0055[0.484] | −0.0021[0.774] | 0.0787[0.439] | — |
| **Winsorizing at 5%** | — | — | — | 0.0147[0.010] |
| **Excluding the Year 2022** | — | — | — | 0.0155[0.040] |

The results for the first and fourth hypotheses remain robust across all alternative specifications, The second and third hypotheses are unchanged. The results suggest that it is investor sentiment, not non-Iraqi investors' trading, that influences domestic investors' returns.

**Discussion of the Results in Light of Previous Studies**

It is also found that the positive contemporaneous causality between investor sentiment and the returns is in line with the results of Chowdhury (2021) and Al-Jabouri and Oleiwi (2020) who found similar measure of the effect of investor sentiment on returns in the Gulf and Iraqi markets, respectively, to be statistically significant. Yet, a lack of a following reversal does not apply to developed markets like Gao et al. (2020) and Baker and Wurgler (2006). The difference may be due to the short time period in this study or because the price correction in a market with limited arbitrage may require a longer time horizon than the ones in this study. The independence of non-Iraqi investors' behavior from domestic activity measures is consistent with the findings of Debata et al. (2018), who reported that foreign investor sentiment has an effect independent of domestic sentiment in emerging markets. The finding that the effect is concentrated in small companies is consistent with the theoretical argument of Baker and Wurgler (2006) and with the findings of Kumar and Lee (2006), who demonstrated that individual investors' trades explain the common movement in small-stock returns.

## Conclusions and Recommendations

### Conclusions

1. It was successfully constructed a monthly investor sentiment index for the Iraq Stock Exchange based on official data. The index is mainly driven by domestic investor demand while non-Iraqi investors are not part of the domestic sentiment.
2. Investor sentiment has a positive correlation with the monthly returns on the market at 10% significance level. The finding was very stable across all robustness tests.
3. There is no statistically significant reversal after a 3-month or 1-month period of investor sentiment. This implies that the relationship observed is contemporaneous co-movement of sentiment and prices, not mispricing that is later corrected, or that the correction happens on a longer time frame than what is being looked at.
4. Sentiment of investors is not predictive of trading volume, rather volume precedes sentiment. This means that investor sentiment is created more by trade itself and not influence on it in the Iraqi market.
5. The impact of investor sentiment is limited to the spread between the returns of small and large companies, and small companies seem to do better than large companies during months of investor optimism. This is similar to the results of Baker and Wurgler (2006), who conclude that stocks that are more challenging to value and involve greater arbitrage costs are more responsive to investor sentiment.

### Recommendations

1. The Iraqi Securities Commission and the Iraq Stock Exchange are urged to issue an official monthly index of investors sentiment and trading breadth in the monthly report to allow investors to know the waves of optimism.
2. The disclosure of small companies should be improved and more analytical disclosure should be encouraged to lessen the sensitivity to fluctuations in sentiment.
3. Monthly reports to be published and archived regularly on one website – some monthly reports for 2024 were not available, and the statistical appendix for some of the previous years had not been available.
4. The institutional investor base and investment funds should be increased to enhance the market's role of arbitrage.
5. It is recommended that future studies use direct investor sentiment measures (surveys) and measures based on new accounts opened at the depository center, and that the study time frame be extended as more recent data on a monthly basis for earlier years become available.

### Research Limitations

1. The study period is relatively short for predictive tests (60 months).
2. Some data were estimated for November and December 2024, but the figures

were still strong when these two months were removed.

3. Only three months of testing were used to test the fourth hypothesis.
4. Returns are based on prices, and do not include dividends.

The index components do not include turnover as monthly figures were not available.

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