

## The Impact of Investor Sentiment on Stock Prices in the Egyptian Stock Market

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### الملخص:

يهدف هذا البحث الى دراسة أثر معنويات المستثمرين على اسعار الاسهم للشركات المقيدة فى سوق الاوراق الماليه المصرى. حيث أن معنويات المستثمرين هو مصطلح ظهرت أهميته فى الفتره الاخيريه خاصة فى مجال التمويل و يمكن من خلاله فهم تقلبات الاسواق الماليه و كيفية التنبؤ بعوائد و أسعار الأسهم. تتكون عينة الدراسه من ٨٣ مقيدة فى البورصة المصريه. اكدت نتائج الدراسة على أن معنويات المستثمرين (تفاؤل و تشاؤم المستثمرين) له تأثير جوهري على اسعار الاسهم. فعندما يسود حالة من التفاؤل بين المستثمرين يؤدي ذلك الى زياده اسعار الاسهم، و العكس عندما تزداد درجة التشاؤم تجاه السوق تنخفض اسعار الاسهم ، ثم تعود الى معدلاتها مرة أخرى فى المستقبل.

### Abstract:

This research investigates the impact of investor sentiment on stock prices in the Egyptian stock market. Sample size consists of 83 companies listed in the Egyptian stock exchange. Three measures can be used to measure investors' biased expectations: Share Turnover, E Share, and dividend premium. Results imply that, investor sentiment significantly affect stock prices of the Egyptian companies. Interestingly, in periods of higher investor

sentiment (investor optimism) stock prices increases and over-valuated, in periods of low investor sentiment, stock prices under-valuated than its fundamental values (stock prices decrease).

## **1-Introduction:**

Investor sentiment can be considered as a general prevailing behavior of investors as to anticipate price valuation process in the stock market. This attitude is the accumulation of different fundamental and technical factors, including price history, economic reports, seasonal factors and national world events.

For example, if investors expect upward price movement in the stock market, the sentiment is said to be bullish and this reflect a case of optimism. On the contrary, if the market sentiment is bearish, most investors expect downward price movements, which reflect a case of investors' pessimism.

A growing body of recent research examined the association between investor sentiment fluctuations and stock market returns and prices. This research aims to contribute to the existing literature by investigating the impact of investor sentiment on security prices of the Egyptian listed firms.

## **2- The Meaning of Investor Sentiment:**

Boubaker & Talbi, 2014 defined investor sentiment phenomena as the influence of investor by emotions, future returns and investment risks, and posed the following questions:

- 1- Is the investor sentiment affects only small caps?

- 2- Is there more stock fragile investor sentiment than others?
- 3- Do stock prices affect companies regardless of their characteristics?

The phrase "sentiment" refers to whether an agent possesses excessively positive or negative affect; positive sentiment results in overly optimistic views, while negative sentiment results in overly pessimistic views.

Sentiment may hence be considered as irrational evaluation of asset characteristics (Bank and Brustbauer, 2014).

Dalika & Seetharam, 2015, defined investor sentiment as the difference between what asset prices are and what it should be.

By the definition, investor sentiment is the systematic deviation expected by investors for the future performance of capital market. The capital market is pressed with either high-flying or downcast investor sentiment. It may be concerned with two perspectives; the financing constraint and agent problem. The financing constraint perspective states that with the high-flying of investor sentiment, convenience in financing relatively rises and the cost of financing relatively decreases, which will effectively mitigate the underinvestment of companies. Financing constrains forces companies to abandon investment projects with a positive net present value (NPV), utilize market opportunities to raise fund and make investment during the period of high investor sentiments. Naturally, convenient financing opportunities may provide a soil for overinvestment (Baker, 2009 and Huang et al; 2016).

Investor sentiment approach faces a number of challenges:

- 1- Investor sentiment is difficult to be measured, and imperfect indicators may remain useful over time.
- 2- Understanding the foundations and variation in investor sentiment overtime .
- 3- Determining which particular stocks attract speculators or have limited arbitrage potential.
- 4- Sentiment affects the cost of capital. Therefore, it influences the allocation of corporate investment capital across safer and more speculative firms.

In sum, Investor sentiment may result from traders biased expectations on asset value and it may be considered as a noise in the financial stock market. In the same time, it can be considered as a phenomena of biased believes that may have negative consequences on companies' firm performance.

### **3-Measures of Investor Sentiment:**

A number of measures have been developed in the literature leaving the question of which investor sentiment indicator should be used for empirical exploration? Further, which of them is the most pertinent for future stock return?

Investor sentiment measures employed generally are classified into: (1) direct measures of investor sentiment (survey based), and (2) indirect measures of investor sentiment (using market based sentiment indices). Survey based indices are obtained by

directly polling the opinions or investors' perception through surveys and questionnaires. In contrary, indirect indices seek to glean sentiment indirectly from financial proxies.

### **3-1 Direct Sentiment Measures**

Direct sentiment measures are derived from questionnaires and surveys asking individuals about their feeling about current or future economic and stock market conditions.

The direct approach typically uses survey as a measure to identify levels of sentiment, i.e. high investor sentiment periods are corresponding to periods in which a majority of economic agents, particularly investors, forecast strong future performance (Berger and Turtle, 2012) .

Direct measures include: UBS/Gallup Validation measure, consumer confidence, investor intelligence measure, AAI sentiment index, index of relative Retail sentiment, and Global investor sentiment survey.

### **3-2 Indirect Sentiment Measures**

Indirect investor sentiment measures represent economic and financial or market variables susceptible to capture investors' state in mind. Indeed, indirect indicators of investor sentiment are specific measures that do not require sense to use theories to justify.

Indirect measures include: the closed-end funds discount (CEFD), trading volume, dividends premium, the number of IPOs (NIPO), the average monthly first-day returns on IPOs (RIPO), equity issue

over total new issue, and volatility premium.

Advantages of using indirect measures:

1. They are based on simple market data.
2. They are easy to be established.
3. Indirect measures are observed in real time and reflect both the power of market participant and the strength of their feeling either optimism or pessimism.

#### **4-Investor Sentiment and Investors' Identification:**

Tetlock, 2007 indicated that, most theoretical models of the influence of investor sentiment on stock market pricing posit the existence of two types of traders, the first type include those who hold random beliefs about future dividends called noise traders and the second type include those who hold biased beliefs called rational arbitrageurs. When future dividends expectations of noise traders are below rational arbitrageurs' expectations, this is called pessimistic beliefs. Noise traders and rational arbitrageurs have downward-sloping demand for risky assets because they are risk reluctant, capital constrained, and impaired from freely trading risky assets.

Bank and Brustbauer, 2014 indicated that the behavior of younger managers looks like inexperienced investors. Young and inexperienced investors had higher expectations about stock markets than old and experienced investors. Although feedback on financial markets is noisy, experience affect investment decisions, reduce herding behavior, and reduce overconfidence. Experienced investors are able to learn and improve their trading

skills overtime, so they become less prone to sentiment. Furthermore, while inexperienced investors might affect financial markets during optimistic periods rather than during periods of pessimism, the well-established stock markets and indices might be less influenced by sentiment than recently established ones.

Small investors are typically considered to be irrational and less sophisticated investors in comparison to their counterpart. While small irrational investors used to follow analysts' recommendations exactly, large investors adjust the expectations downward particularly, in the case of analysts' underwriter affiliation (Qian, 2014).

Generally, investors can be classified as sophisticated or rational investors and sometimes called arbitrageurs, and unsophisticated or irrational investors, who are also named as noise traders.

It is suggested that, unsophisticated investors are more likely to be susceptible to investor sentiment fluctuations in the financial market than less sophisticated investors. Therefore, developed financial markets may be less prone to investor sentiment than recent one.

As a result of noise and mispricing caused by irrational investors in the stock market, arbitrageurs may do not have the ability to correct it immediately resulting in limits to arbitrage.

## **5-Investor Sentiment and Stock Market Returns**

Recently, quantifying the usefulness of investor sentiment measures on the stock market is at the center of academic research. Possible impact of investor sentiment on stock returns has been a subject of frequent inquiries in the finance literature,

and a represents a focus of attention for both economists and practitioners.

Due to the importance of the role of investor sentiment in asset valuation process in many financial and stock markets, many studies had investigated the influence of sentiment on stock market prices and returns.

A growing body of recent academic studies confirmed the close relation between investor sentiment and stock market returns. These studies suggested that the market sentiment and behavioral bias of investors affect both overall market returns and individual asset returns.

The stock market collapse of 1929, the rapid fall of technology stocks in 2000, the financial crises of 2008-2009 and subsequent European debt crisis all clearly explain how investor pessimism substantially drives stock price away from its intrinsic value and results in large investment losses.

The behavioral theory of DeLong et al., 1990 suggested that noise trade sentiment can persist in financial markets, and it is difficult to predict changes in noise trade sentiment to avoid arbitrage. Moreover, Assets exposed to noise trader risk are both riskier and have to offer an extra return premium. In sum, the theory predicts that sentiment affect security pricing under two necessary conditions: (1) the assets are often held by sentimental noise traders, and (2) transaction costs are high enough to prevent systematic arbitrage by arbitrageurs.

Lee et al, 1991, found a positive correlation between optimism, explained by decreases in the CEFD as a negative sentiment factor, and the returns of assets which disproportionately held by

individual noise investors. When CEFD declined, small firms outperform large firms.

Brown and Cliff, 2005 found evidence of a positive contemporaneous relation across sentiment and pricing errors. They found that optimism leads to overvalued stocks and results in long run future underperformance.

High sentiment level should be associated with high stock valuations, especially for hard to value and arbitrage stocks. Conversely, low sentiment works in an opposite direction, while in the absence of sentiment, stocks are expected to be correctly priced. That is, when sentiment increases, all stock's prices increases, but some more than others. In this case, there will be strong aggregate effects of sentiment, because aggregate stock indexes are simply averages of the underlying stocks, which called the sentiment seesaw.

Baker and Wurgler, 2007 suggested that, when sentiment is low, the average future returns of speculative stocks exceed those of bond-like stocks. When sentiment is high, the average future returns of speculative stocks are on average lower than the returns of bond-like stocks. This pattern explain the fact that riskier stocks may sometimes have lower expected returns which is contradictory with classical asset pricing theory in which investors exposed to risk because they are compensated by higher expected return. Therefore, when sentiment increases to high levels, the following market returns become low.

Sentiment affects stock prices because optimism or pessimism in investors' beliefs in different sentiment situations causes stock price variations. Stambaugh et al, 2012 indicated that the long-

short anomaly strategy is more profitable in the months subsequent to high sentiment than low sentiment periods. Chung et al; 2012 captured the asymmetry in the return predictive ability of sentiment during economic expansion and recession.

They found that only during an economic expansion, which represents times of flourishing economic environment; investors become more optimistic as reflected by the increase in sentiment, and investor sentiment show a significant impact on stock returns. In contrast, in times of economic downturns, when investors are more pessimistic, the impact of sentiment on stock prices becomes insignificant.

Oprea and Brad, 2014 examined the effect of individual investor sentiment on stock market prices and returns in the Romanian stock market. They found a positive association between changes in investor sentiment and stock returns. They also found evidence that individual investor optimism positively affect stock prices and this effect is reversed with increased pessimism . Surprisingly, results implied that rational investors remove the impact of irrational traders very quickly in less than a month, this result contradicts with the findings of Schmeling , 2009 who indicated that the impact of investor sentiment is removed over long time period.

Boubaker & Talbi, 2014 found strong negative relationship between investor sentiment and future returns. However, they found that investor sentiment is not affected by past returns.

In contrast, Kim & Kim, 2014 did not find evidence that investor sentiment predicts future returns or forecast earnings surprises and returns around quarterly earnings releases either at the

aggregate or at the individual firm level. Rather, previous and concurrent stock price performance and earnings news influence investor sentiment.

Vieira, 2015 explored whether the effect of investor sentiment on stock returns is different for public family firms and non-family firms in Portuguese stock market. They found that this effect do not differ between both kinds of firms, their results are consistent with the behavioral finance theory as they found a negative relationship between sentiment and stock reruns and this inverse relationship tend to be sensitive to the proxy used to measure the sentiment.

Using the monthly Turkish consumer confidence index, published by the Turkish statistical Institute, as a proxy for individual investor sentiments, the results of Sayim& Rahman, 2015 suggested that investors have optimistic expectations of the economy as a whole with respect to market fundamentals in Turkey. This optimism can result in creating positive expectations, reducing uncertainty, and reducing the volatility of stock market return.

Dalika and Seetharam, 2015 examined the relationship between investor sentiment and stock returns in the South African Market, the results indicate that investor sentiment has a strong negative impact on stock returns. When sentiment is low, subsequent returns are relatively high on small stocks, high volatility stocks, extreme growth stocks and young stocks, on the other hand, these patterns fully reverse when sentiment is high.

Balcilar, Gupta, and Kyei, 2015 developed a newly nonparametric causality-in-quantiles approach to investigate the

predictability of both stock returns and its volatility based on investor sentiment indices.

They indicated that, stock returns and its volatility, as a measure of uncertainty, directly reflect the financial health and future prospects of companies. So, they are important indicators for capital budgeting and portfolio management decisions.

Other extreme of research focused on the effect of investor sentiment on stock valuation in the existence of short sale constrains.

Yu, 2011 report that disagreement among investors' opinions result in overpricing under the existence of short-sale constrains.

Investors who hold Optimistic views tend to acquire stocks that have the highest valuations and stock prices tend to reflect the valuation of optimistic market participants under the existence of short-sale constrains and other trading frictions which prevent rational or pessimistic investors from trading against them (Qian, 2014).

Kim et al, 2014 investigated the impact of disagreement in the stock market return by considering time-varying level of investor sentiment. They use dispersion among analyst earnings forecasts as a direct measure of disagreement among investors' opinions. To explain such market phenomena, they combined investor sentiment with the effects of short –sale constrains. They found that during high sentiment periods the impact of disagreement among analyst forecasts on future stock market returns are stronger than during periods of low sentiment. This might be because reasons for short sale impediments dominate the stock market during periods of high sentiment. In addition, results

contended that the return predictability of disagreement combining the investor sentiment dummy enhance the profitability of the trading strategy.

There are multiple reasons for the existence of short-sale constrains in the stock market (Kim et al, 2014):

- The impact of short sale constrains are more pronounced during periods of high sentiment than during low sentiment periods because the increased participation of individual investors in times of high investor sentiment strengths their influence on stock prices.
- Individual investors characterized by their limited knowledge and behavioral bias, make them more resistant to hold short stocks .

In sum, investor sentiment fluctuations may affect security prices and evaluation. Investors' excessive biases and expectations affect the return of the overall stock market as well as individual asset prices and returns, it shift stock prices away from its fundamental value, resulting in misvaluation or mispricing of stocks in the financial market.

Consequently, optimism may lead to stock overvaluation and overpricing, and pessimism may cause stock undervaluation or reduction in stock prices.

Then, the noise made by investors that cause variation in stock prices can be removed in subsequent times by arbitrageurs. Therefore, high stock prices resulting from investor sentiment is followed by low subsequent stock prices and returns in the future.

Moreover, stock overpricing may also result because of the concept of short sale constrain. During high sentiment periods, investor sentiment may have more impact on future returns than in low sentiment periods, which explain the prevailing short sale constrain in the stock market.

Indeed, the relationship between investor sentiment and stock market prices may be more sensitive to the measure used for investor sentiment.

Hence, it can be expected that investor sentiment significantly impact stock prices in the stock market, and that there may be positive correlation between the level of investor sentiment and stock price movements.

Interestingly, while investors efficiently react to tangible information, the stock market may also react to intangible information. For example, firms with higher R&D expenses, advertising, patent quotations and satisfaction of employees all attain superior returns.

The role of the intangible information in the capital market had also been provided on recent years. Chi-Lu Peng et al; 2015 indicated that customer satisfaction may be value-relevant for both investors and firm management, particularly in considerable pessimistic periods. The prevalence of firms with higher customer satisfaction during pessimism represents an opportunity for investors to make money from this mispricing in the bearish market, and managers might have incentives to cut expenditures quickly in response to negative revenue shocks. However, higher customer satisfaction protects companies against market pessimism or influences of negative sentiment by increase

spending on intangible investments.

The Financial Accounting Standards Board (FASB) had recently required the disclosure of nonfinancial information to enable investors to assess firms' value.

While the previous literature investigated the direct relation between investor sentiment and stock market prices and returns. Other recent studies have expanded to provide explanations about the relationship between investor sentiment and important market phenomena.

Yu and Yuan, 2011 examined the impact of investor sentiment on risk-return relationship using conditional stock market variances as a proxy for the stock market risk. The positive risk-return relationship is highly significant in low-sentiment periods, whereas it is insignificant when investors hold optimistic beliefs.

Stambaugh et al. , 2012 revealed that investor sentiment is one of the key factors that generate anomalies in cross-section stock returns. Anomalies may become more significant during periods of high sentiment than during periods of low sentiment.

Shen and Yu , 2012 also found that macroeconomic variables may have an effective role in asset valuation process in periods of low sentiment, rather than in periods of high sentiment.

Chung et al., 2012 examined the sentiment predictability on the portfolio returns of eleven asset pricing anomalies. The pricing anomalies which associate with financial distress ( firms with high failure probability have lower returns) , net stock issues, composite equity issues, total accruals (firms with high accruals earn abnormally lower average returns than those with lower

accruals ), net operating assets (firms with high net operating assets earn lower returns), momentum, gross-profit to assets (firms with higher profits have higher returns than those with lower profits) .

Typically, the sentiment predictability pattern is regime – dependent. The overall evidence suggested that investor sentiment had stronger impact on long-short portfolio returns of the anomaly strategies in case of expansion more than in the case of recession.

Kim et al ; 2014 investigated whether any other macroeconomic variables could improve the return predicting patterns of disagreement, similar to the impact of investor sentiment. The macroeconomic variables include: the short rate, term spread, default spread, dividend yield, consumer surplus ratio, and consumer-wealth ratio. The study concluded that the return predictability of investor sentiment is unique and only investor sentiment can exerts the significant impact on the relation between future stock market returns and disagreement among analyst forecast.

Another series of studies had investigated the casual relationship between investor sentiment and stock market returns by analyzing a range of international markets to clarify the differences across countries. In contrary to Chui, et al., 2008 who indicated that cultural differences among countries can be an element of bias behavior, Schmeling ,2009 analyzed the effect of feeling on performance in 18 countries. He found that feeling affect performance in nine countries out of the eighteen countries analyzed, this effect become stronger in countries that tend to be more likely affected by herd behaviors, investor overreaction,

and lowers market integrity.

Similarly, Baker et al., 2009 examined the impact of various aspects of sense locally and globally on financial market returns. They suggested that this effect vary according to the true measure of the variable of feeling.

In brief, In addition to the multiple macroeconomic and financial variables that had been used to predict stock market returns, the literature has introduced the role of other behavioral variables in predicting stock returns such as investor sentiment, as market participants make overly optimistic and pessimistic judgments and choices.

There is a positive relationship between changes in investor sentiment and stock prices. This relation explains the overvaluation of stock prices in bullish markets or during optimism periods and the undervaluation of stock prices in bearish markets or during pessimism. In addition, there is a negative relationship between investor sentiment and future stock market returns.

## **6-Hypothesis Development:**

Growing prior literature has investigated the impact of investor sentiment on stock prices. The study of Baker and Wurgler, 2006 indicated that when investors are bullish, they buy stocks, driving the stock prices up and subsequent returns down. In the same way, Yu, 2011 reported that disagreement among investors' opinions result in overpricing under existence of short sale constrain. Moreover, the study of opera and Brad, 2014

documented a positive association between changes in investor sentiment and stock returns.

Therefore the hypothesis can be constructed as follows:

*"There is a Significant Impact of Investor Sentiment on Stock Prices in the Egyptian Stock Market".*

## **7-Empirical Study:**

### **7-1 Study Population and Sample Size:**

The population consists of all listed companies in the Egyptian stock exchange. The empirical approach is based on financial and historical stock data of these listed companies.

The study investigation period ranges from January 2011 to December 2016. Financial services companies and banks are excluded because information of these firms does not have the same meaning as for non-financial firms.

The study sample is based on 83 companies listed in the Egyptian stock exchange distributed among the different sectors.

### **7-2 Constructing Research Variables:**

#### **7-2-1 Constructing Investor Sentiment Index**

Investor sentiment measured using a principal component analysis of three measures: share turnover, equity share and

dividend premium

$$Investor\ Sentiment = .676 * lag.TURN + .567 * lag.DP-NP - .402 * E.SHARE$$

### 7-2-2 Statistical Analysis

**Table No. (1)**

#### **Pearson Correlation**

#### **The Correlation between Investor Sentiment and Companies' Stock Prices**

		<u>Sentiment</u>	<u>Closed Price</u>
<u>Sentiment</u>	Pearson Correlation	1	.759**
	Sig. (2-tailed)		0.000
	N	412	412
<u>Closed Price</u>	Pearson Correlation	.759**	1
	Sig. (2-tailed)	0.000	
	N	412	497

The relationship between investor sentiment and stock prices is strong, positive and highly significant (correlation is .759 at 1% level of significance). High investor sentiment is associated with increases in stock market prices and low investor sentiment is associated with decreases in companies' stock prices.

Interestingly, fluctuations in investor sentiment levels cause mispricing of stocks. Therefore, higher investor sentiment may be accompanied with overvaluation of stock prices (increase in stock prices). On the other hand, lower investor sentiment which represents investors' pessimism toward the stock market results in stock undervaluation (decreases in stock prices). These results are consistent with the notion that, as a result of noise caused in the stock market by noise traders, sentiment may push prices a way from its fundamentals. Therefore, as a correction to this mispricing, it is expected that periods of high sentiment should be followed by lower future stock prices and lower investor sentiment should be followed by higher stock prices in the future.

**Table No. (2)**

**ANOVA Analysis**

**The Impact of Investor Sentiment on Companies' Stock Prices**

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	113380.698	1	113380.698	556.601	.000 <sup>b</sup>
Residual	83517.837	410	203.702		
Total	196898.535	411			

Table No.2 use analysis of variances (ANOVA) to explore the impact of investor sentiment on closed stock prices of Egyptian companies. For this purpose, investor sentiment is set as independent variable and stock prices are set as dependent

variable. The results of this table indicates that stock prices are significantly affected by waves in investor sentiment (sig = .000).

**Table No. (3)**

**Coefficient Table**

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	33.703	0.859		39.239	0.000
Sentiment	46.170	1.957	0.759	23.592	0.000

Form table no.3, the following equation can be estimated:

$$\text{Close Price} = 33.703 + 46.17 \text{ Sentiment}$$

This means that if investor sentiment is increased by 1, stock prices will increase by stock prices 46.17

Overall, the findings suggest that investor sentiment has obvious impact in the Egyptian stock market. Interestingly, stock market prices are significantly affected by investor sentiment swings. In contrast to the efficient market hypothesis which suggests that all publicly available information are fully reflected in share prices and there is no role for investor sentiment in the financial stock

markets, the results of this study reveal that, psychological and behavioral elements reflected in investor sentiment may influence stock prices which is consistent with prior literature in the field of behavioral finance.

## **8- Conclusion, Findings and Recommendations:**

### **8-1 Conclusion**

Investor sentiment can be considered as an important element in stock return generating process. Prior studies have investigated the effect of firm characteristics on the relation between investor sentiment and stock valuation. Generally, most of the studies stated that investor sentiment may have more effect on difficult to value and hard to arbitrage stocks. Particularly, stocks that are small, young, unprofitable and in firms that do not pay dividends. Hard to arbitrage stocks may result in higher transaction costs, and difficult to value stocks may result in more investors' biases. However, few studies documented a negative pricing effect of sentiment in large value stocks, and others confirmed that both large and young firms are affected by sentiment fluctuations.

### **8-2 Findings**

The results of the research imply that stock market prices are significantly affected by investor sentiment swings. This suggests that excessive investor optimism, i.e during periods of high sentiment, is associated with stock market overvaluation reflected in the increase in companies' stock prices in these periods. Consequently, high investor sentiment periods are expected to be followed by lower movement in stock prices as the market price reverts to its intrinsic value. On the other side, lower investor

sentiment is accompanied with lower stock prices. Overall, these findings are broadly in line with the findings for the U.S market.

### **8-3 Recommendations:**

In case of noise investor sentiment prevails in the financial market, board of director should be aware about how management responds to such sentiment: either via financial reporting or other channels. Managerial strategies should be in the long term best interest of the company.

The importance of increasing financial transparency and increasing levels of investors' protection to mitigate the effect of investor sentiment on stock prices.

### **Bibliography:**

#### **A- Journals**

- 1- Baker M., and F., Wurgler.2007. Investor Sentiment in the Stock Market. *Journal of Economic Perspectives*. 21(2): 129-151
- 2- Baker, M., and J., Wurgler. 2006. Investor Sentiment and the Cross Section of Stock Returns. *Journal of Finance*. 61: 1645-1680
- 3- Baker, T. A., D., L., Collins, and A., L., Reitenga .2009. Incentives and Opportunities to Manage Earnings around Options Grants. *Contemporary Accounting Research*. 26 (3): 649-672
- 4- Berger, D., and Turtle, H., J., 2012. Cross-Sectional Performance and Investor Sentiment in a Multiple Risk Factor Model. *Journal of Banking and Finance*. 36: 1107-1121.
- 5- Boubaker, A., and M., Talbi. 2014. The Impact of Investor Sentiment on the Tunisian Stock Market. *Journal of Business Studies Quarterly*. 6(1): 2152-1034
- 6- Chung, S., C., Hung, and C., Yeh. 2012 . When Does Investor

- Sentiment Predict Stock Returns. *Journal of Empirical Finance*.19: 217-240
- 7- Dalika, N., and Y., Seetharam. 2015. Sentiment and Returns: An Analysis of Investor Sentiment in the South African Market. *Investment Management and Financial Innovations*. 12(1): 267-276
- 8- DeLong, J., B., Andrei Shleifer, Lawrence H., Summers, and Robert J., Waldmann. 1990. Noise Trader Risk in Financial Markets. *Journal of Political Economy*. 98: 703-738
- 9- Huang, H., G., Jin, and J., Chen. 2016. Investor Sentiment, Property Nature and Corporate Investment Efficiency. *China Finance Review International*. 6(1)
- 10- Kim, J.S, D., Ryu, and S.,W.,Seo, 2014 . Investor Sentiment and Return Predictability of Disagreement. *Journal of Banking and Finance*, 42: 166-178
- 11- Kim, S., and D., Kim, 2014. Investor Sentiment form Internet Message Posting and the Predictability of Stock Returns. *Journal of Economic Behavior & Organization* , [http:// dx.doi.org/ 10.1016/j.jebo.2014.04.015](http://dx.doi.org/10.1016/j.jebo.2014.04.015)
- 12- Li,F. 2008. Annual Report Readability, Current Earnings, and Earnings Persistence. *Journal of Accounting and Economics*. 45: 221-247
- 13- Oprea, D., S., and L., Brad. 2014. Investor Sentiment and Stock Returns: Evidence from Romania. *International Journal of Academic Research in Accounting, Finance, and Management Sciences*. 4(2):19-25
- 14- Peng, C., Lai, K., Ling, M., and Wei, A., 2015. Investor Sentiment, Customer Satisfaction, and Stock Returns. *European Journal of Marketing*. 49(5/9): 827-850
- 15- Qian, X., 2014 .Small Investor Sentiment, Differences of Opinion and Stock Overvaluation. *Journal of Financial Markets*. [http:// dx.doi.org/10.1016/j](http://dx.doi.org/10.1016/j).
-

- 16- Sayim, M., and Rahman, H., 2015. The Relationship between Individual Investor Sentiment, Stock Return and Volatility. *International Journal of Emerging Markets*. 10(3): 504-520
- 17- Schmeling M., 2009. Investor Sentiment and Stock Returns: Some International Evidence. *Journal of Empirical Finance*. 16 (3): 394-408
- 18- Stambaugh, R., F., Yu, J., Yuan, Y., 2012. The Short of it: Investor Sentiment and Anomalies. *Journal of Financial Economics*. 104: 288-302
- 19- Tetlock, P. 2007. Giving Content to Investor Sentiment: the Role of Media in the Stock Market. *The Journal of Finance*. (3)
- 20- Vieira, E., F., S. 2015. Investor Sentiment and Share Returns: Evidence on Family Firms. *Academia Revista*. 29(1): 65-83
- 21- Yu, J., 2011. Disagreement and Return Predictability of Stock Portfolios. *Journal of Financial Economics*. 99:162-183
- 22- Yu, J., and Y., Yuan. 2012. Investor Sentiment and the Mean-Variance Relation. *Journal of Financial Economics*. 100: 367-381

## **B- Working Paper**

- 1- Balcilar , M., R Gupta and C., Kyie. 2015. Predicting Stock Returns and Volatility with Investor Sentiment Indices : A Reconsideration Using a Nonparametric Causality-in-Quantiles Test. Working Paper
- 2- Bank, M., and J., Brustbauer. 2014. Investor Sentiment in Financial Markets. Working Paper
- 3- Shen, J., and J., Yu, 2012. Investor Sentiment and Economic Forces. Working Paper, University of Minnesota