

# **Who really affect the Egyptian stock market prices retail or institutional investor during COVID-19 pandemic**

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**Abstract:**

In this article the researcher aims to literature who really drive the market during COVID-19, by understanding the effect of both retail and institutional investor on the Egyptian stock market, as many researches recently notes in many countries that stock markets driven by retail investors, as fear dominated the financial markets from the successive closures in the countries, and the indicators of the financial markets began to turn red. the article find that when COVID-19 appeared as a result in a dramatically failed in the prices, so the retail investors sell their securities in the market to minimize their losses, so the institutional investor manage their portfolios by maintaining their position without selling and buy from retail the best stocks to enhance their portfolio and try to stop the collapse of the market.

**Keywords:** investor behavior, retail investor, institutional investor, Egyptian stock market, trading behavior, stock market price, COVID-19.

## **\.Introduction**

To control the spread of COVID-19, most countries around the world have implemented a variety of control procedures, beginning with public awareness, the proper use of masks and sterilization procedures, ensuring social distancing, and imposing restrictions on gatherings and non-essential travel.

With the rapid spread of this virus intensifying, many countries take more severe procedures, such as the comprehensive ban (Perra, N. 2021), whether for a short or long period, and most countries of the world have announced complete or partial closure for several times. (Bakhshi, P., & Chaudhary, 2020) indicated that countries lock down results in huge financial and economic losses, as a result of the severe impact on all economic and financial activities as a result of these restrictions.

As a result financial markets around the world, as confirmed by (Bahrini, R., & Filfilan, A., 2020) dropped down, which resulted in the decline of most stock market indices around the world, including those in America, Europe, Asia, and Africa. (Wagner, 2020) pointed that the Dow Jones Industrial Average index (DJIA) and Standard & Poor's 500 Index (S&P500) dramatically dropped.

The crises witnessed by the financial markets have continued, which led to the emergence of a great controversy in the academic circles, which was launched from the questioning of the efficient market theory, by a number of researchers who have proven the existence of a number of distortions in the capital market, such as what was explained by Shiller (1981), Banz (1981), De Bondt & Thaler (1985).

Jahanzeb (2012) stressed that the psychological aspect on human life and behavior has a significant impact on investment decisions that cannot be ignored. However, the stock market community may be controlled by factors of fear and greed, regardless of logical considerations of the market, for example the speculative process may lead to profit and a feeling of happiness, Self-realization and enjoyment of the spirit of adventure, however speculative process may lead to loss and change the psychological state of the investor, leading to fear and depression.

Many researchers in the field of finance have shown that there are many differences in investment behavior between retail and institutions. While the institutional investor is making his investment decisions based on the available information in the market, retail investors are believed to be influenced by many psychological biases, and they are often described as Noise Traders Black (1986). Institutional investors continually dedicate themselves to obtaining and analyzing information, while their trading motives determine investment patterns (active or passive) and strategies for buying or selling shares in the stock markets. Funds actively buy and sell shares on the basis of their evaluation of those shares in light of the available information.

Conversely, the study of Barber et al. (2009) declared that retail investors' overall portfolio performance is poor and that most retail trading losses can be attributed to their aggressive orders.

Many behavioral biases may contribute to why retail investors self-manage their accounts and trade so frequently (Daniel et al., 1998; Odean, 1998; Gervais and Odean, 2001; Kelley and Tetlock, 2013). In order to determine who profits and who loses from trade, Barber et al. (2009) create portfolios

that replicate the buys and sells of each investor group. While institutional investors (corporations, dealers, foreigners, and mutual funds) profit from trade, retail investors suffer significant losses. Additionally, retail investors often under-diversify their stock portfolios, hold onto lost common stock positions, and sell winning ones (the "disposition effect"). They also engage in naive reinforcement learning by repeating past behaviors that brought them pleasure, however retail traders are less informative than institutional investors and are more likely to cause permanent price changes (Easley and O'Hara, 1987; Easley et al., 1997).

Since retail investors tend to People typically buy when prices are down and sell when they are rising, so their profits may also be related to the short-horizon return reversals first noticed by Jegadeesh (1990) and Lehmann (1990), so retail investor under-diversify their stock portfolios, purchase stocks that capture their interest or those they are familiar with, and use naive reinforcement learning by repeating past behaviors that brought them joy while avoiding past behaviors that brought them pain (Barber and Odean, 2008, 2011). As a result, unless institutional investors improve the level of informed trading in proportion to the liquidity offered by retail investors, their buy and sell decisions are likely to make volatility worse.

Moreover, According to Barber et al. (2009), trading among retail investors is very correlated and persistent. Retail investors' systematic trading is not depended on taxes, systematic changes in risk aversion, or passive responses to institutional herding. Retail investors' trading is affected by psychological biases, which causes investors to routinely purchase stocks with great recent performance, refrain from selling equities held at a loss, and become net purchasers of stocks with exceptionally high trading activity. Based on French

data, Foucault et al. (2011) give evidence that retail investors increase stock return volatility as they are noise traders.

Bertero et al. (1990) clarifies that in crisis, psychological factors controlled the investor as there is a few of information available, Moreover, Djalilov et al. (2021) mentioned that when COVID-19 appears, this pandemic has resulted in a significant increase in retail investor presence in stock markets around the world. Retail investors are now recognized as a market-driving force as of early 2021.

So, when crisis happened (COVID-19), who will lead and effect in the market informed traders (institutional investor) or the psychological investor (retail investor).

In this paper, researcher associate the trading of institutional investor and the trading of retail investor, and their effect on the stock market in Egypt. We do so by means of correlation and regression tests like Easley et al. (1997) and depending on past prices changes like Avramov et al. (2006), but occurring during covid-19 pandemic.

## **2. Description of Data and Sample**

The purpose of the present study was to investigate the extent to which investor trading behavior for both retail and institutional investor affect the Egyptian stock market prices. For achieving this, the researchers developed a model that demonstrates the different effects of (a) retail investor trading behavior versus (b) institutional investor trading behavior on the stock market prices during COVID-19 pandemic (see figure 1).

The sample consisted of 245 observations, the study period was from 31/12/2019 to 03/01/2021, the researcher choosed this period to understand

how retail investor trading behavior versus (b) institutional investor trading behavior on the affect stock market prices during the first wave of COVID-19.

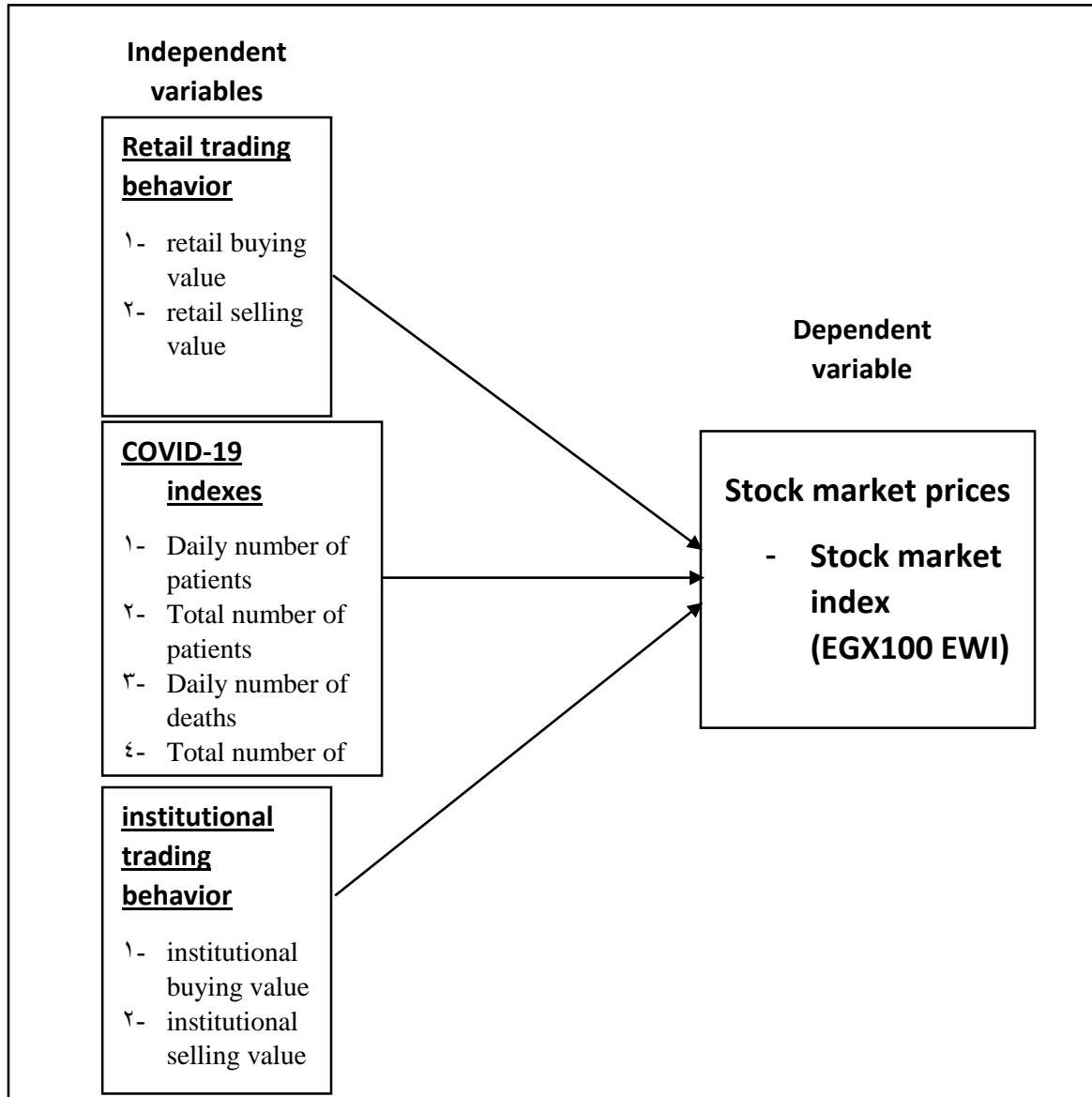


Figure 1. Research model

## 2.1 The Dependent Variable

The dependent variable is the daily price of the Egyptian stock market index, the researcher used EGX100 EWI.

The Egyptian Exchange has launched EGX100 Equally Weighted Index “EGX100 EWI” on 10 May 2020, and index calculation started on the 2nd of January 2006, in order to develop and diversify the Egyptian market indices that aim at providing wider tools for investors to follow the market. The Index tracks the performance of the top 100 companies in terms of Liquidity and Activity, which includes the constituents of EGX30 and the constituents of EGX70 EWI.

## 2.2 The Independent Variables

### 2.2.1 COVID-19 indexes

The only available information in the first wave of the COVID-19 pandemic to investors are the daily number of patients, the total number of patients, the daily number of deaths and the total number of deaths, this information was obtained from the database of the World Health Organization for all the countries under study daily, the following table shows the information variables and its symbols in the research.

Table 2. COVID-19 indexes

Variables	Symbols
Daily number of patients	New_cases
Total number of patients	Cumulative_cases
Daily number of deaths	New_deaths
Total number of deaths	Cumulative_deaths



### **2.2.2 Retail trading behavior**

To assess the retail trading behavior, the researcher used sell and buy value. The strategy for so-doing was to collect this data from 31/12/2019 to 03/01/2021.

### **2.2.3 Institutional trading behavior**

To assess the institutional trading behavior, the researcher used sell and buy value. The strategy for so-doing was to collect this data from 31/12/2019 to 03/01/2021.

## **3. Methodology**

This research used correlation to quantify the degree to which variables are related, and used backward stepwise regression approach that begins with a full (saturated) model and at each step gradually eliminates variables from the regression model to find a reduced model that best explains the data., so we use measure the effect of all independent variables on the stock market index., In addition to know the most influential independent variables on the stock market index.

## **4. Results**

### **4.1 Results from Correlation**

As we can see from the table 2, about all variables had a significant correlation with stock market index, we can summarize as follow:

1. Both retail buying value and retail selling value had a strong positive significant correlation with stock market index, which means that retail investors behavior had connection with the market prices moves.

٢. Both institutional buying value institutional selling value had a strong negative significant correlation with stock market index, which means that retail investors behavior had connection with the market prices moves.
٣. New cases of COVID-19 had not a significant correlation with stock market index, cumulative cases, new deaths and cumulative deaths had positive significant correlation with stock market index, specially both cumulative cases and deaths had a strong positive significant correlation with stock market index, which means that fear from increasing in patients and deaths numbers form COVID-19 controls the prices in this period, so we can say the fear governed the market.

Table 2. Correlations

		stock_market_index
retail BUY_VALUE	Pearson Correlation	.751**
	Sig. (2-tailed)	.000
	N	245
retail sell_VALUE	Pearson Correlation	.703**
	Sig. (2-tailed)	.000
	N	245
institutional BUY_VALUE	Pearson Correlation	-.431-
	Sig. (2-tailed)	.000
	N	245
institutional sell_VALUE	Pearson Correlation	-.438-**
	Sig. (2-tailed)	.000

	N	245
New_cases	Pearson Correlation	.045
	Sig. (2-tailed)	.484
	N	245
Cumulative_cases	Pearson Correlation	.907**
	Sig. (2-tailed)	.000
	N	245
New_deaths	Pearson Correlation	.113**
	Sig. (2-tailed)	.078
	N	245
Cumulative_deaths	Pearson Correlation	.927**
	Sig. (2-tailed)	.000
	N	245
**. Correlation is significant at the 0.01 level (2-tailed).		
*. Correlation is significant at the 0.05 level (2-tailed).		

## 4.2 Results from Backward Stepwise Regression

Table 3. Backward Stepwise Regression

### Backward Stepwise Regression

Independent variable: stock market index (trading volume)

	Model 1	Model 2	Model 3	Model 4
Adjusted R Square	.897	.897	.897	.897
Model significance	<b>.000 ***</b>	<b>.000 ***</b>	<b>.000 ***</b>	<b>.000 ***</b>

Retail BUY_VALUE	<b>.941</b>			
	<b>(.074)</b>			
retail SELL_VALUE	<b>.030**</b>	<b>.002 ***</b>	<b>.002 ***</b>	<b>.002 ***</b>
	<b>(2.180)</b>	<b>(3.095)</b>	<b>(3.112)</b>	<b>(3.094)</b>
institutional BUY_VALUE	<b>.000 ***</b>	<b>.000 ***</b>	<b>.000 ***</b>	<b>.000 ***</b>
	<b>(-7.168)</b>	<b>(-7.187)</b>	<b>(-7.142)</b>	<b>(-7.199)</b>
institutional SELL_VALUE				
New_cases	<b>.232</b>	<b>.231</b>		
	<b>(1.199)</b>	<b>(1.201)</b>		
Cumulative_cases	<b>.006 ***</b>	<b>.006 ***</b>	<b>.005 ***</b>	<b>.000 ***</b>
	<b>(-2.752)</b>	<b>(-2.757)</b>	<b>(-2.846)</b>	<b>(-7.434)</b>
New_deaths	<b>.223</b>	<b>.221</b>	<b>.571</b>	
	<b>(-1.221)</b>	<b>(-1.226)</b>	<b>(-.568)</b>	
Cumulative_deaths	<b>.000 ***</b>	<b>.000 ***</b>	<b>.000 ***</b>	<b>.000 ***</b>
	<b>(4.841)</b>	<b>(4.851)</b>	<b>(4.930)</b>	<b>(11.878)</b>

**Note:** \*\*\*, \*\*, \* denote statistical significance at 1%, 5% and 10%, respectively.

As shown in table 3, the stepwise regression generates 4 models that are all significant. The 4 models had explanatory power with approximately 90%.

We can see that institutional sell value excluded from the whole 4 models, which means that corporate investor during COVID-19 maintain his portfolio with buying and do not engaged in selling their securities, also we can see that retail buy value excluded from 3 models, and only shown in the first model and did not have any significant effect on the stock market prices, which means that retail investor during COVID-19 not engaged in any buying for securities, the fourth model showed the most powerful Clarification for what happen in the Egyptian stock market during the first wave of COVID-19, as

we can see that most power full factors affected the prices in the market were retail selling value, institutional Buying value, Cumulative cases and Cumulative deaths, all these factors had a significant effect on the stock market prices with 9<sup>9</sup> % confidence, so we can say as the retail investors sell their securities in the market to minimize their losses as when COVID-19 appeared as a result in a dramatically failed in the prices, the institutional investor manage their portfolios by maintaining their position without selling and buy from retail the best stocks to enhance their portfolio and try to stop the collapse of the market, and this scenario can be shown in figure 1.

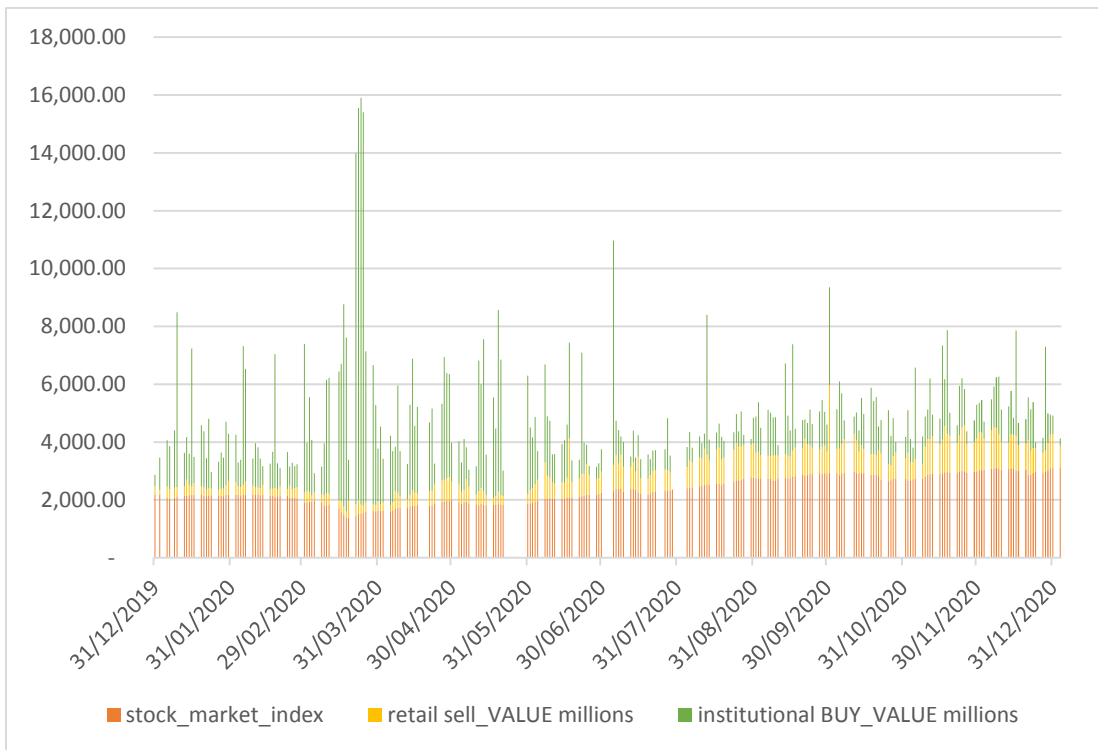


Figure 1. retail sell Vs. institutional buy effect on stock market index

## **Conclusion**

When Covid 19 appeared, fear dominated the financial markets from the successive closures in the countries, and the indicators of the financial markets began to turn red. In Egypt retail investor shifted towards quick selling in an attempt to reduce his losses, which increased the suffering of the stock market and reduced price levels, while the institutional investor in In return, tried to maintain the stability of his portfolio, so institutional investor stopped selling and started buying good stocks in light of the low prices to maintain their portfolios and try to stop the deterioration of the markets driven by large selling trades by retail investors

## References

- Avramov, D., Chordia, T., & Goyal, A. (2006). The impact of trades on daily volatility. *Review of Financial Studies*, 19, 1241–1277.
- Bahrini, R., & Filfilan, A. (2020). Impact of the novel coronavirus on stock market returns: Evidence from GCC countries. *Quantitative Finance and Economics*, 4(4), 640–652. Available at: <https://doi.org/10.3934/qfe.2020029>.
- Bakhshi, P., & Chaudhary, R. C. A. (2020). Responsible business conduct for the sustainable development goals: Lessons from Covid-19. *International Journal of Disaster Recovery and Business Continuity*, 11(1), 2835-2841.
- Banz; Rolf .W, The Relationship Between Return And Market Value Of Common Stoc Ks, *Journal of Financial Economics* ,Volume 9, Issue 1, March 1981, P. 3-18.
- Barber, B., & Odean, T. (2008). All that glitters: The effect of attention on the buying behavior of individual and institutional investors. *Review of Financial Studies*, 21, 785–818.
- Barber, B., & Odean, T. (2011). The behavior of individual investors. In G. M. Constantinides, M. Harris, & R. M. Stulz (Eds.), *Handbook of the Economics of Finance* (pp. 1533–1570). North Holland, Amsterdam: Elsevier.
- Barber, B., Lee, Y., Liu, Y., & Odean, T. (2009). Just how much do individual investors lose by trading? *Review of Financial Studies*, 22, 609–632.

- Bertero, E., & Mayer, C. (1990). Structure and performance: Global interdependence of stock markets around the crash of October 1987. *European Economic Review*, 34(6), 1155-1180.
- Black, F. (1986). Noise. *Journal of Finance*, 41, 529–543.
- Daniel, K., Hirshleifer, D., & Subrahmanyam, A. (1998). Investor psychology and security market under- and overreactions. *Journal of Finance*, 53, 1839–1885.
- De Bondt ; Werner. F and Thaler; Richard, Does the stock market overreact? *The Journal Of Finance*, Vol. 40,No. 3, (jul., 1985), pp. 793-805.
- Djalilov, A., & Ülkü, N. (2021). Individual investors' trading behavior in Moscow Exchange and the COVID-19 crisis. *Journal of Behavioral and Experimental Finance*, 31, 100549.
- Easley, D., & O'Hara, M. (1987). Price, trade size, and information in securities markets. *Journal of Financial Economics*, 19, 69–90.
- Easley, D., Kiefer, N., & O'Hara, M. (1997). The information content of the trading process. *Journal of Empirical Finance*, 4, 159–186.
- Foucault, T., Sraer, D., & Thesmar, D. (2011). Individual investors and volatility. *Journal of Finance*, 66, 1369–1406.
- Gervais, S., & Odean, T. (2001). Learning to be overconfident. *Review of Financial Studies*, 14, 1–27.
- Jahanzeb ; Agho, Implication Of Behavioral Finance In Investment DecisionMaking Process, *Business and Management Review* , Vol .2 , No. 8 , October 2012.



- Jegadeesh, N., & Titman, S. (1993). Returns to buying winners and selling losers: Implications for stock market efficiency. *The Journal of finance*, 48(1), 65-91. doi:10.2307/2328882
- Kelley, E., & Tetlock, P. (2013). Why do investors trade? Unpublished paper. New York City, NY: Columbia Business School.
- Odean, T. (1998). Are investors reluctant to realize their losses? *Journal of Finance*, 53, 1775–1798.
- Perra, N. (2021). Non-pharmaceutical interventions during the COVID-19 pandemic: A review. *Journal of Physics Reports*, 913(C), 1-52. Available at: <https://doi.org/10.1016/j.physrep.2021.02.001>.
- Shiller ; Robert, Do Stock Prices Move Too Much To Be Justified By Subsequent Changes In Dividends? *The American Economic Review*, Vol. 71, No. 3, june 1981, 421-436.
- Wagner, A. F. (2020). What the stock market tells us about the post-COVID-19 world. *Nature Human Behaviour*, 4(5), 440-440. Available at: <https://doi.org/10.1038/s41562-020-0869-y>.