

Analyzing the effects and reasons of Corporate Actions.

A Study of Stock Splits and Buybacks

Winter Project



Corporate Actions.

Corporate actions are events initiated by a company that can affect the value of its securities. These events can be mandatory or voluntary and are important for shareholders and investors to be aware of. Examples of Corporate Actions are:

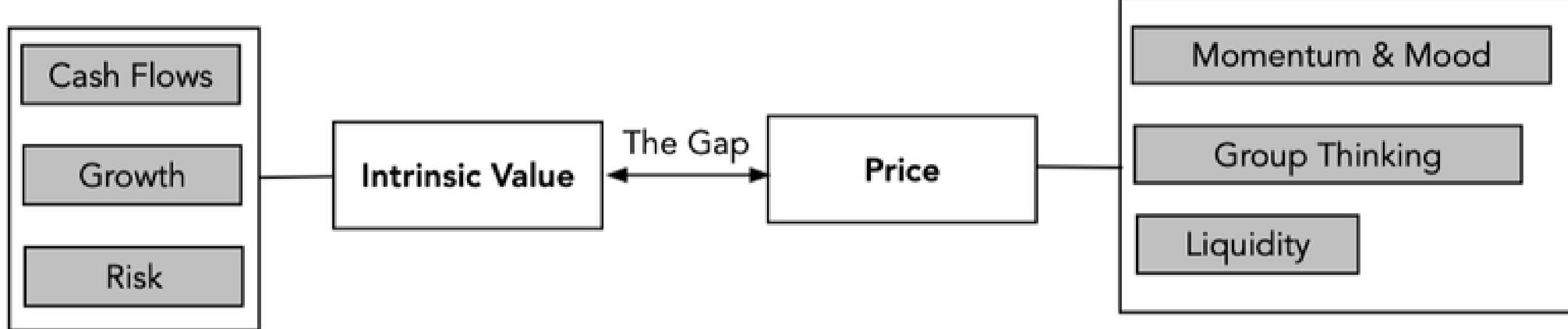
1. Dividends
2. Stock splits
3. Mergers and acquisitions
4. Capital structure changes
5. Stock buybacks
6. Spin-offs

Purpose of Corporate Actions

**Corporate
Restructuring**

**Impacting
Share Price**

**Distributing
Profit to
Shareholders**



To Make a change in this structure

Value Events

Actions that change expected cash flows, growth in those cash flows or the risk in them.

Gap Events

Actions designed to close the gap between price and value by drawing attention to its existence.

Pricing Events

Actions designed to increase the demand for the stock, by changing mood or altering liquidity.

Value of cashflows, adjusted for time and risk

INTRINSIC VALUE

Value

THE GAP
Is there one?
Will it close?

PRICE

Price

Drivers of intrinsic value

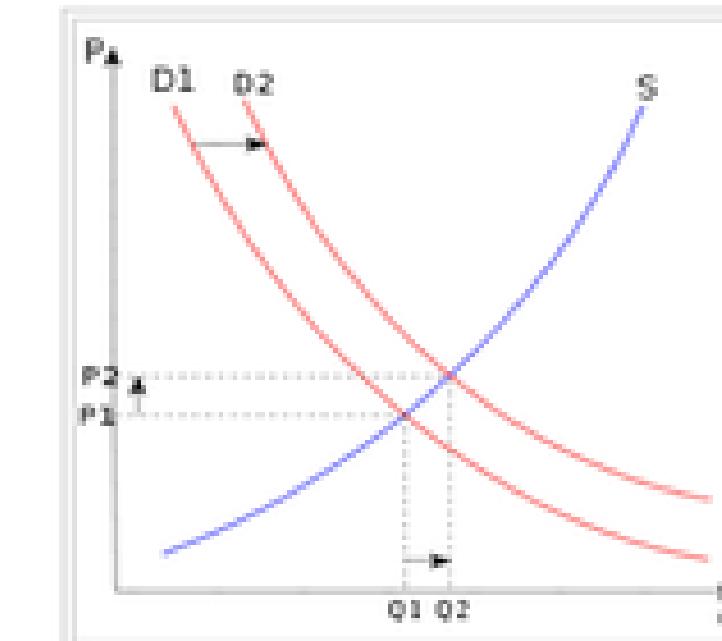
- Cashflows from existing assets
- Growth in cash flows
- Quality of Growth

Drivers of "the gap"

- Market attention
- Information
- Corporate governance

Drivers of price

- Market moods & momentum
- Surface stories about fundamentals
- Liquidity



Value Effects

By changing expected cash flows and the risk in these cash flows, these actions affect value.

Gap Effects

The value does not change, but if the action works, the gap between price & value will close.

Pricing Effects

Value will not change, but price can, sometimes increasing the gap between value & price.

Important Dates for Corporate Actions

1 **Announcement Date**

2 **Action Date**
(largely ceremonial)

Stock Split



Stock splits are corporate actions in which a company divides its existing shares into multiple shares

Buyback

A share buyback is when a company buys back its own shares from its shareholders. Buybacks reduce the number of shares outstanding in the market

Stock Split Deep dive

2 Types of Stock Splits are there, Forward Stock Split and Reverse Stock Split. The latter is less popular, further we'll be referring Forward Stock Split as simply Stock Split.

Looking at splits from a value perspective, they are a purely cosmetic event, because of a split nothing fundamental changes in a company

Why companies do stock Split:

- To make the stock more affordable for individual investors.
- To increase the liquidity of the stock
- To signal the company's growth and success
- To align the stock price with the company's peers

Hypotheses for Stock Split

Complete Details regarding
these hypotheses and their
testing methods can be
found [here](#)

Optimal trading range hypothesis

.....

The Signalling Hypothesis

.....

Liquidity hypothesis

.....

**Small or neglected firms
hypothesis**

.....

Semi-strong efficient market hypothesis

Events selected for Case Study.



April 2022

5:1

A report of the company and details regarding the split can be found [here](#)

July 2022

10:1

A report of the company and details regarding the split can be found [here](#)

Methodology of testing!

Two 41 days event windows were selected for the study, one around Announcement Date and another around the execution date. (-20 to +20)



Abnormal Returns were calculated by subtracting Expected Returns for Actual Returns



Expected Returns were calculated using the CAPM model



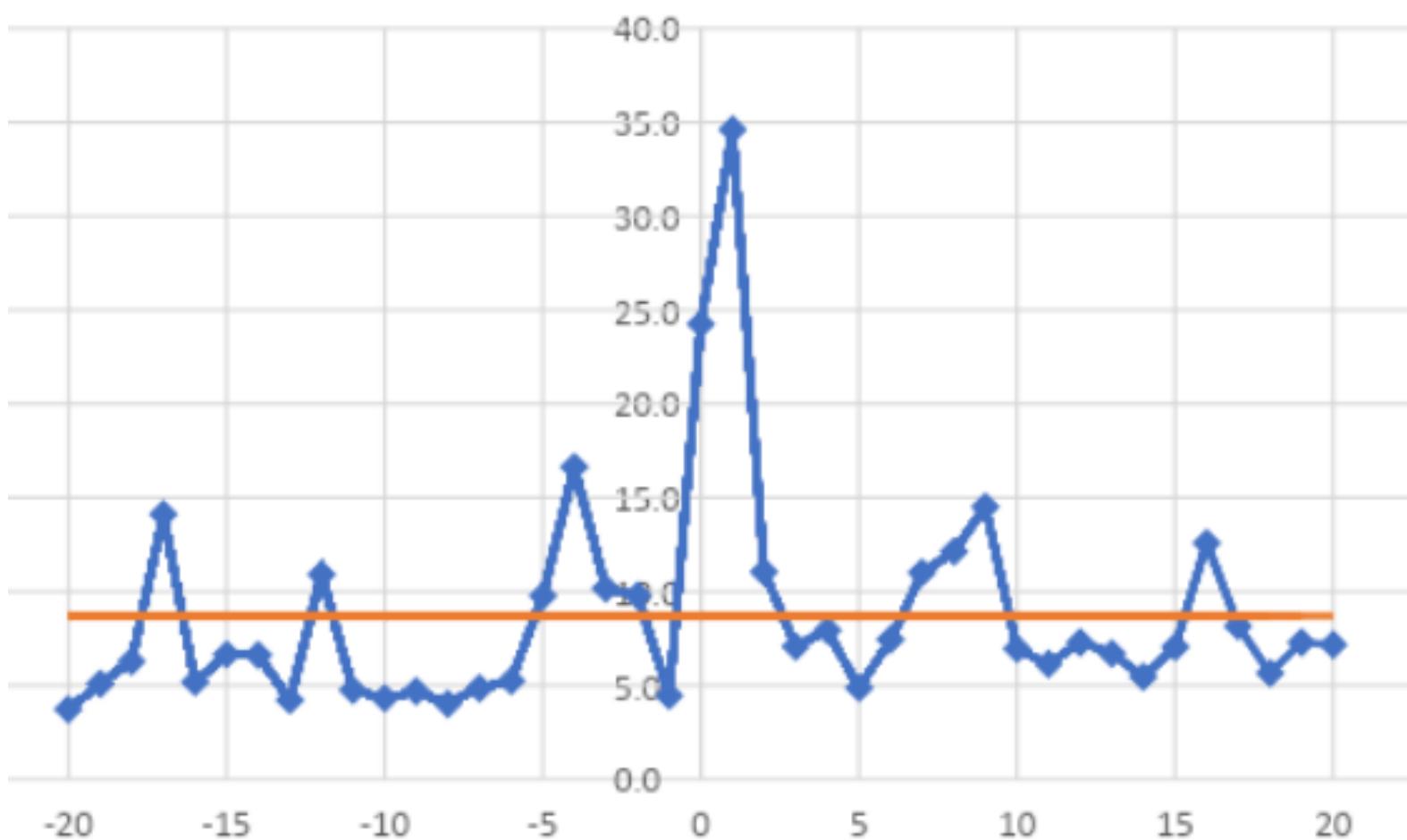
Abnormal returns and volumes were plotted and Observed

Detailed discussion regarding methodology and results obtained can be found [here](#)

Results For Jubilant FoodWorks

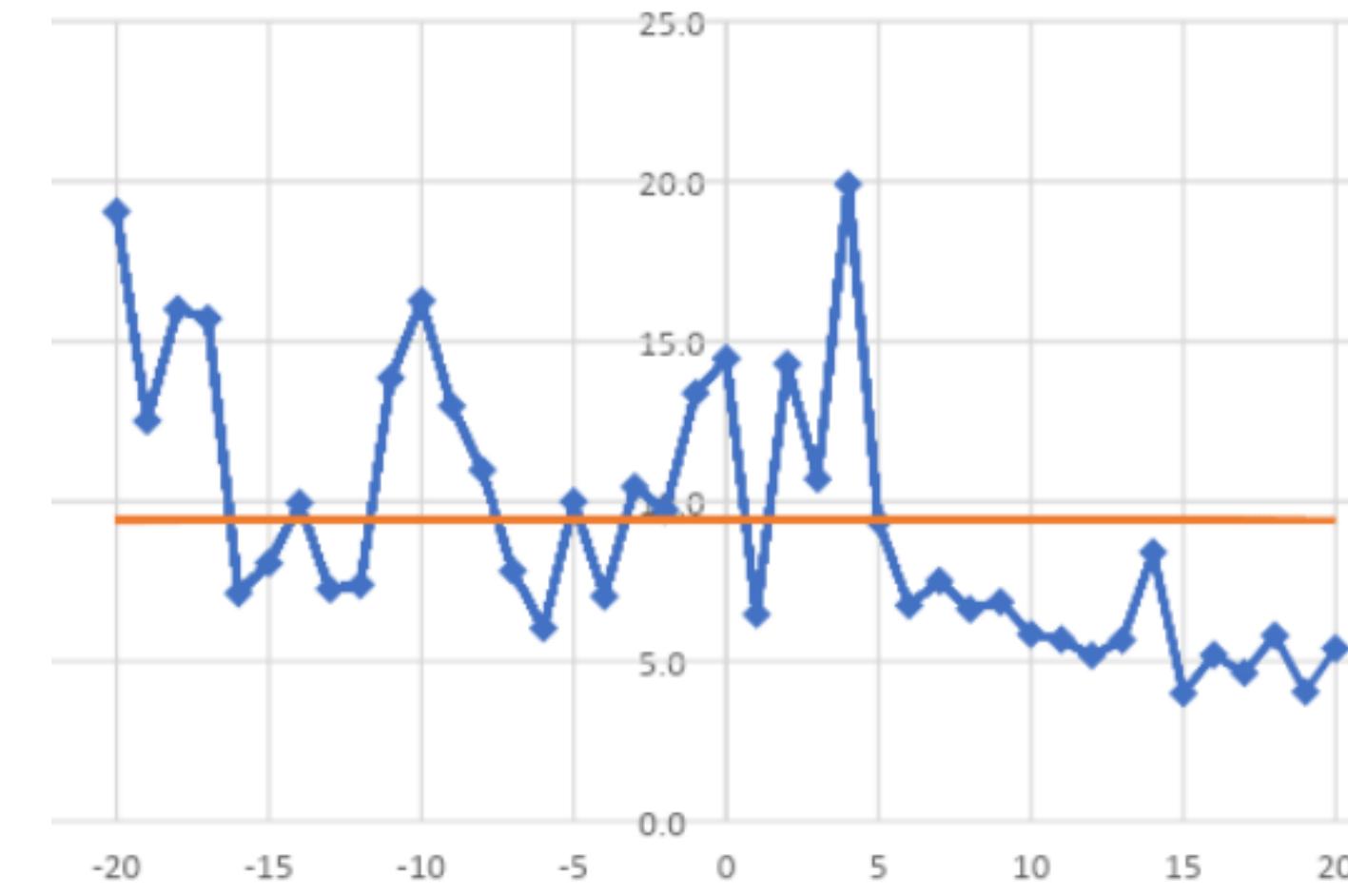
Volume

Volume Traded(L) vs Time



Announcement Date

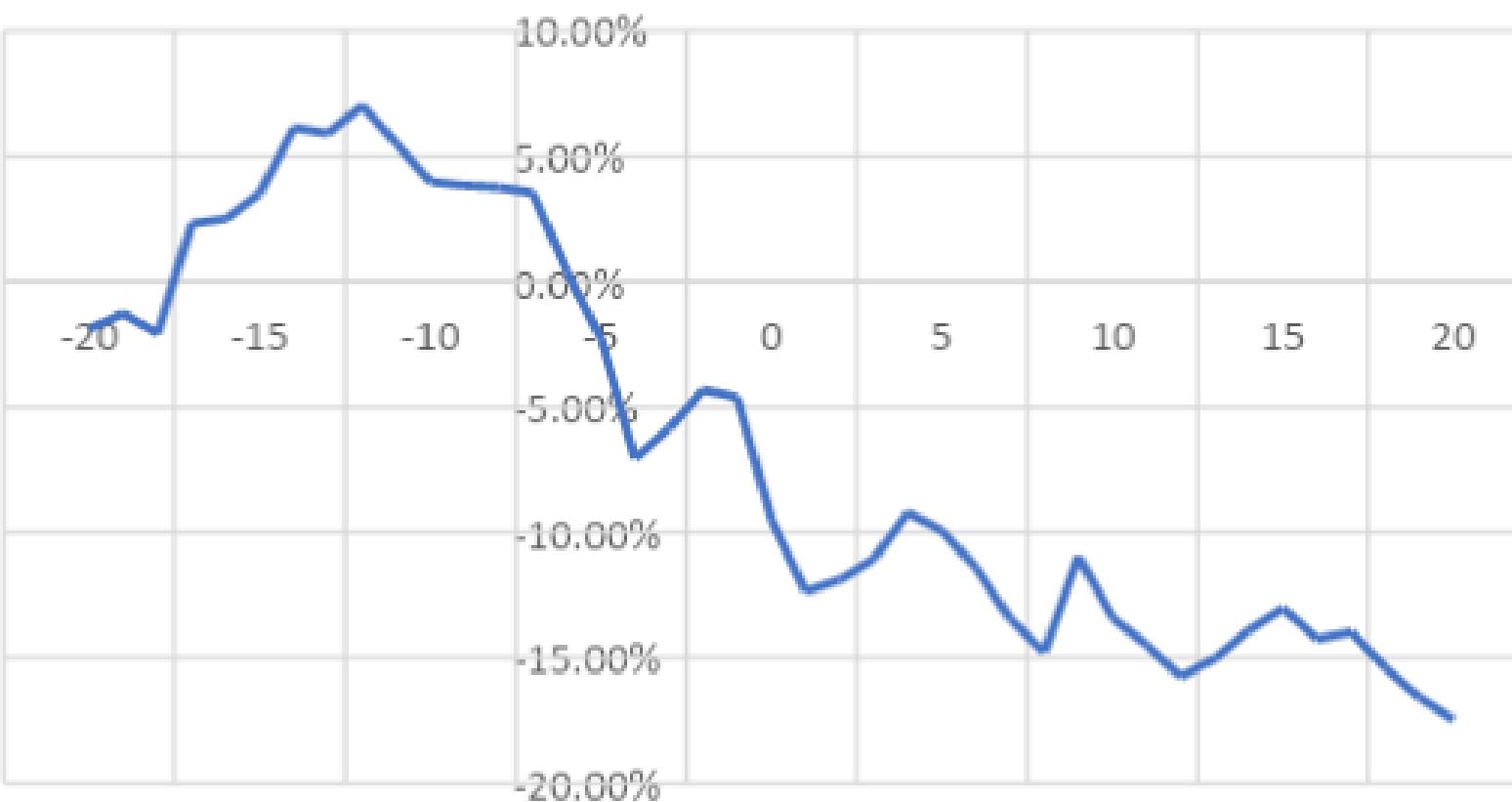
Volume traded(L) vs time



Execution Date

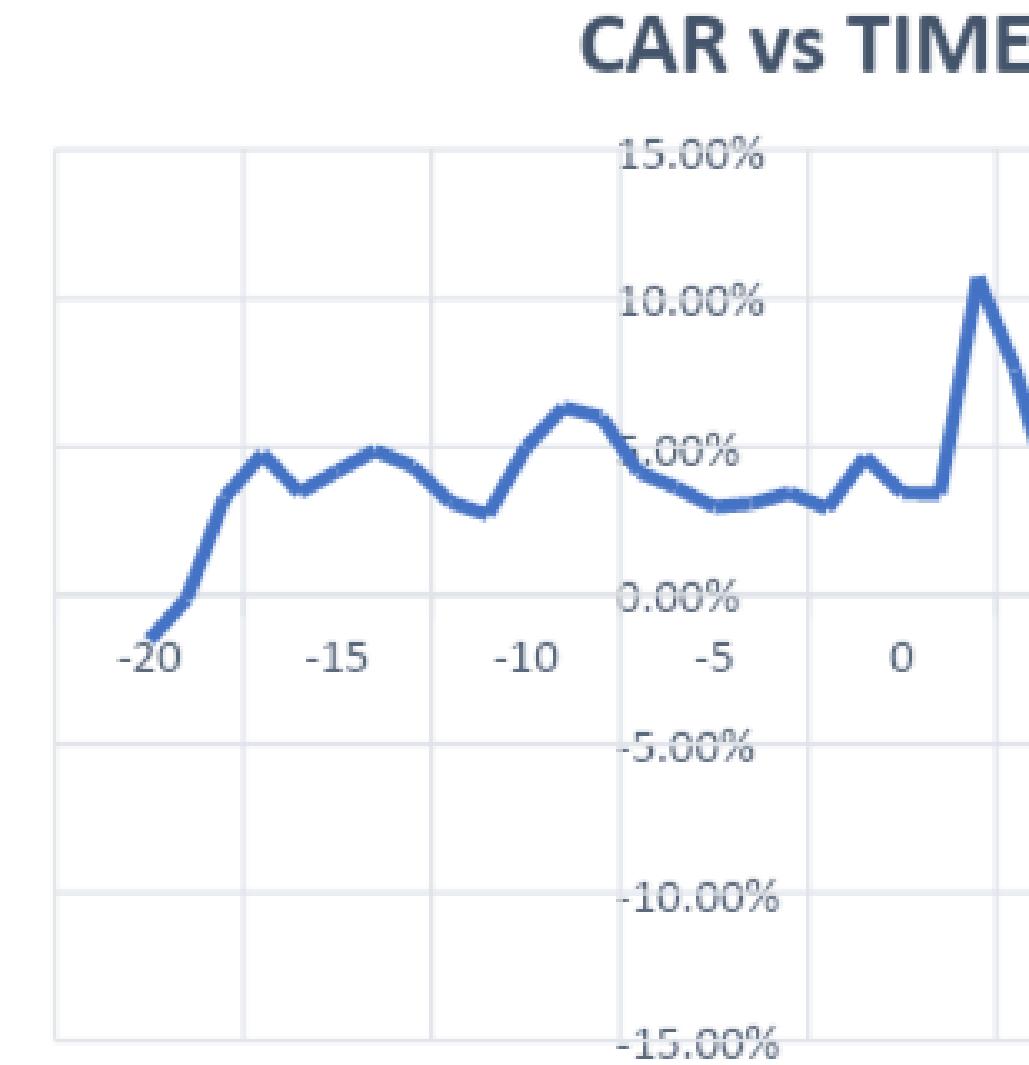
Cumulative Abnormal Returns

CAR vs Time



Announcement Date

Execution Date

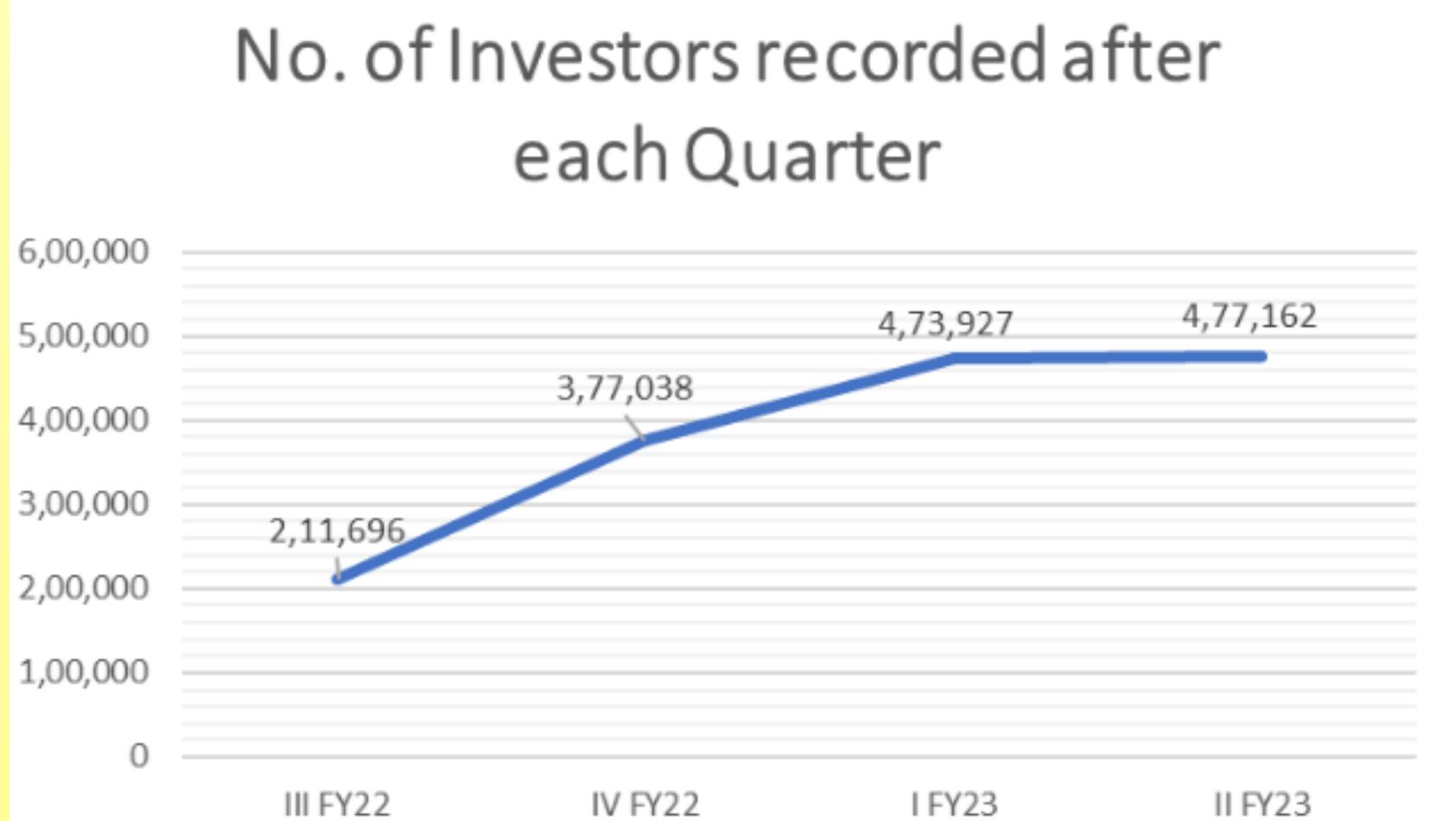


EMH

The expected market reaction to the announcement of the split came before the intimation date and the expected reaction for the event of ‘Resignation of CEO’ also came before it was publically announced. these observations show that the news is being reflected in the stock prices before being publically announced; this goes to show that the market is Strongly Efficient. Hence the form of EMH here is Strong.

Optimal Trading Range Hypothesis

The no. of investors increased significantly after the event of execution; with this observation, the Optimal Trading Range Hypothesis stands correct.



Small and neglected firms hypothesis:

Jubilant Foods is popular stock and is among one of the most widely tracked stocks in the FMCG sector of India. the ‘Small and neglected firms hypothesis’ is not applicable here.

Signalling Hypothesis :

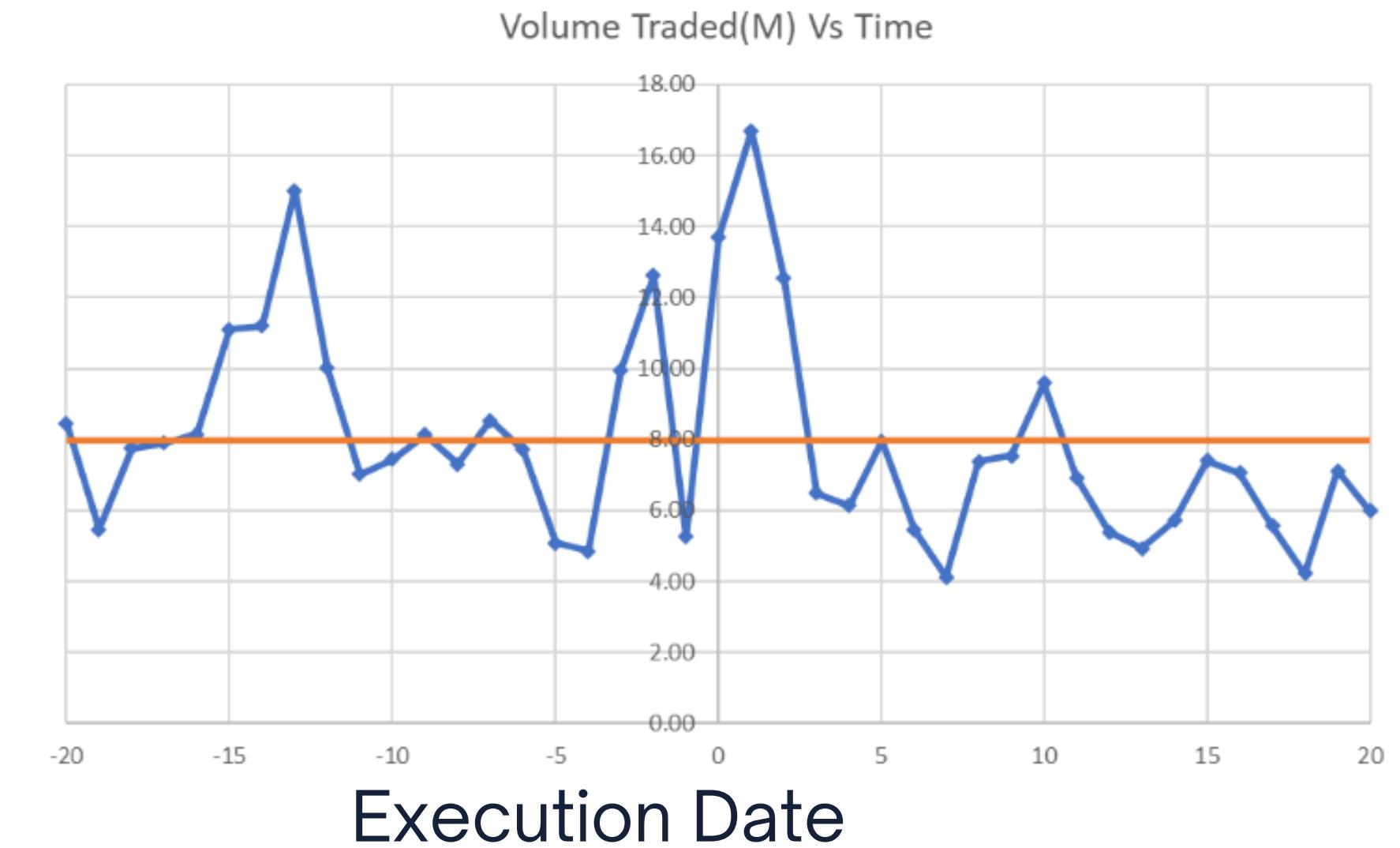
Company’s fundamentals did not change significantly post-split. Moreover, since this event happened recently, this hypothesis can not be tested effectively for the stock.

Liquidity Hypothesis:

The average volume traded after the split dropped to almost half of its pre-split value. From these findings, the liquidity hypothesis stands incorrect here.

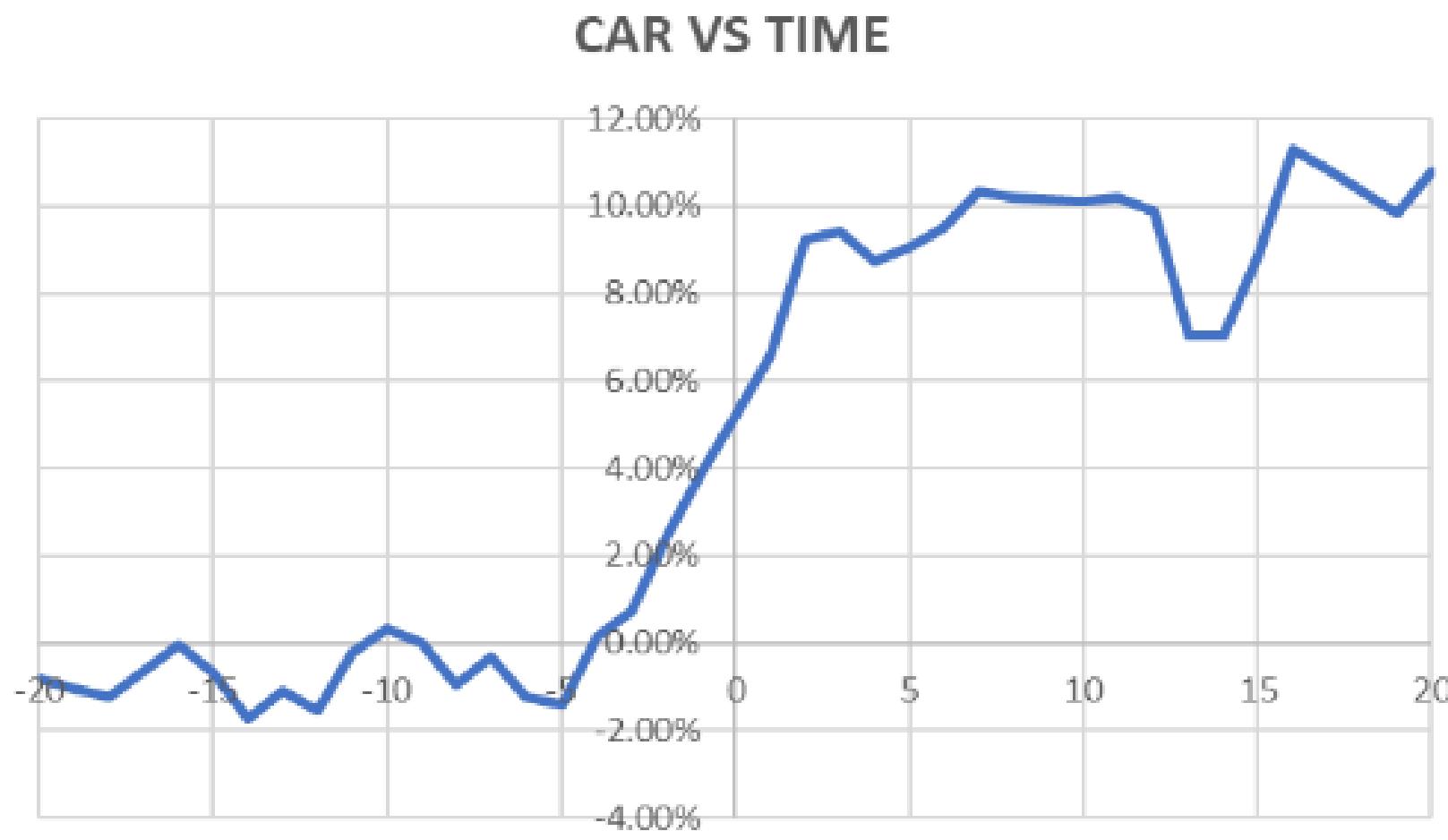
Results For Tata Steel

Volume

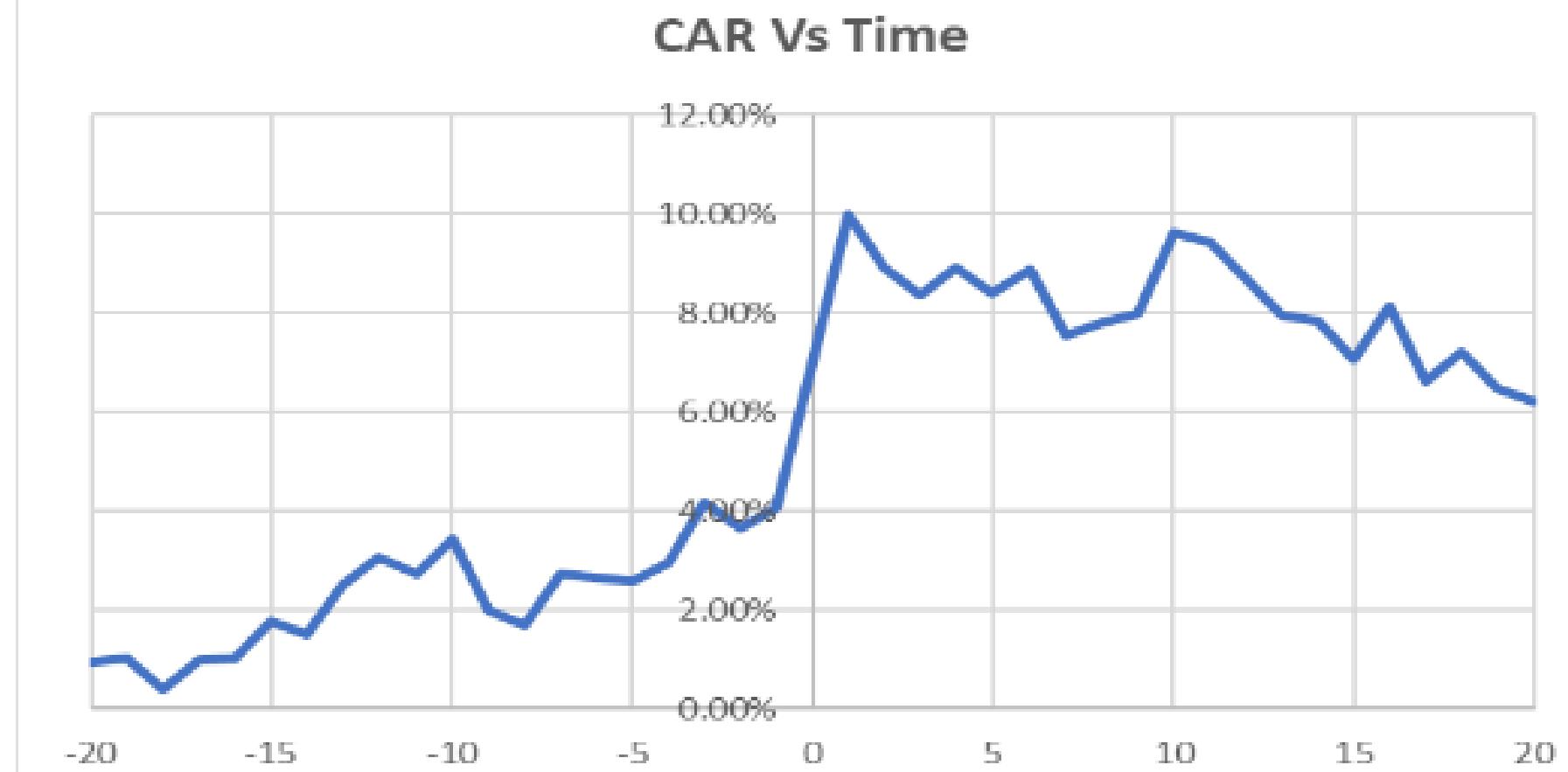


Cumulative Abnormal Returns

Announcement Date



Execution Date



Optimal Trading Range Hypothesis

Liquidity Hypothesis

There was around a 25% decrease in the average volume traded in comparison to the pre-split values. This observation is in direct contradiction of the Liquidity Hypothesis. From these observations, Liquidity hypothesis stands incorrect here.

The split occurred in Q1 FY23 and a substantial increase in the number of investors after the split was observed. From this we conclude Optimal Trading Range hypothesis stands correct.



Efficient Market Hypothesis

We see significant abnormal returns around the announcement date from t0 to t0+2 which suggests there was a significant market reaction considering the news of stock split. This is in line with the Semi-strong efficient market hypothesis. The markets here can be considered Semi-strong.

Small or Neglected firm Hypothesis

Tata steel is among the most popular and widely tracked stock in the Mining and metals sector. So “Small or Neglected firm Hypothesis” is not applicable here.

Buyback Deep dive

- **Value event:** Buyback financed by borrowed money to change the overall cost of capital.
- **Gap event:** Buyback done because the company perceives its share to be undervalued.
- **Price event:** Buyback done to feed the pricing momentum of its shares.

Buyback is used as a method to return cash to shareholders instead of dividends to save on taxes as dividends are taxed under income tax and the gains to shareholders from buyback are taxed under capital gains tax.

Effects of buyback

- **Positive:** When tax benefits of debt are larger than the expected bankruptcy costs of that debt.
- **Negative:** When the expected bankruptcy costs overwhelm the tax benefits of debt.
- **No effect:** When expected bankruptcy cost cancels out the tax benefits.

Types of Buybacks

- **Tender Offer:** Company makes a public offer to purchase a certain number of shares of its own stock at a specific price.

- **Open Market:** Company has a specified share repurchase plan that involves purchases of shares on the open market at predetermined dates or intervals.

- **Dutch Auction:** Company specifies the number of shares it wants to buy back and the maximum price it is willing to pay and the share holders submit the lowest price.

**Signaling
Hypothesis**

**Free Cash Flow
Hypothesis**

**Takeover
Deterrence
Hypothesis**

**Substitution
Hypothesis**

Hypotheses for Buyback

For details regarding the Hypotheses and testing methods click [here](#).

Events Selected for Case Study



Buyback was announced on 7 October 2020 with opening date on 18 Dec 2020. Details concerning the company can be found [here](#).



Buyback was announced on 26 April 2021 with opening date on 8 June 2021.

Methodology of testing!

Two 41 days event windows were selected for the study, one around Announcement Date and another around the execution date. (-20 to +20)



Abnormal Returns were calculated by subtracting Expected Returns for Actual Returns



Expected Returns were calculated using the CAPM model



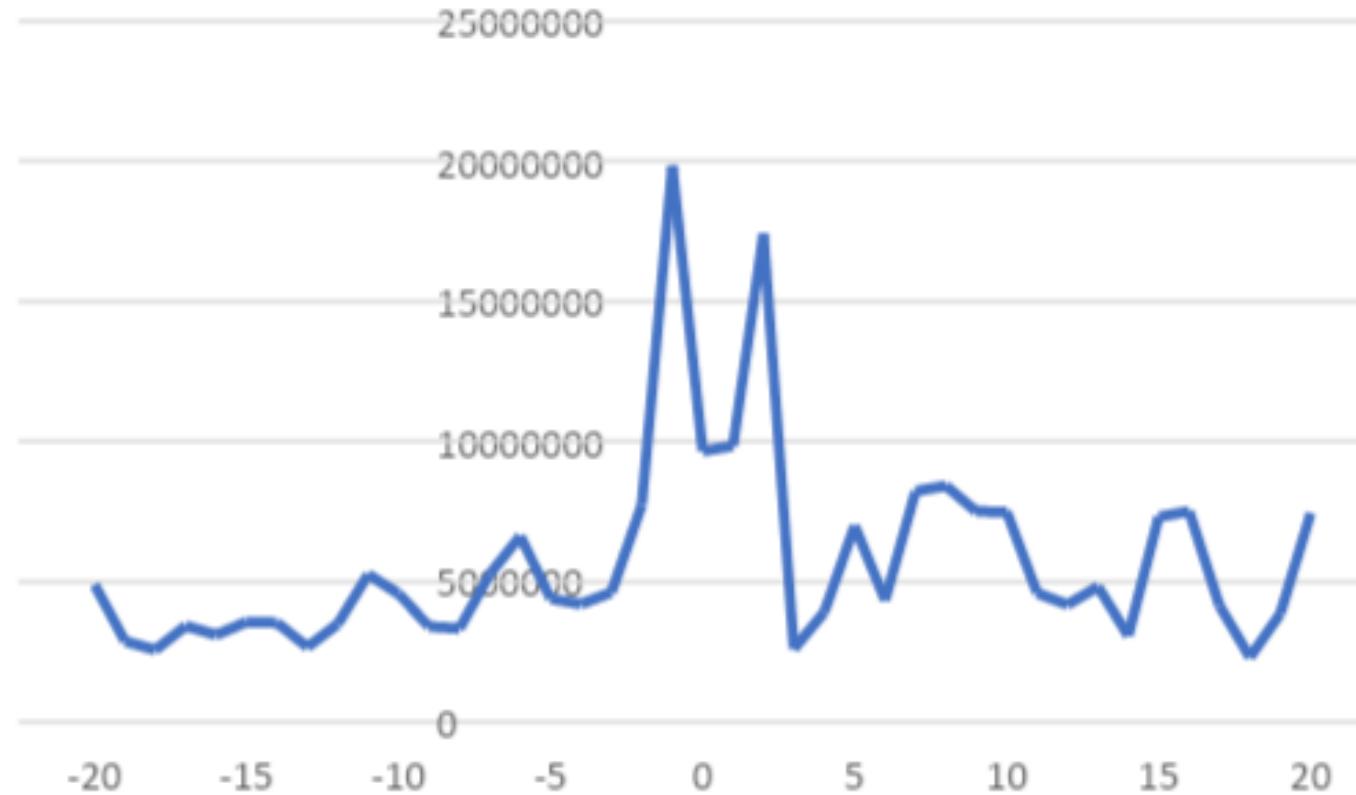
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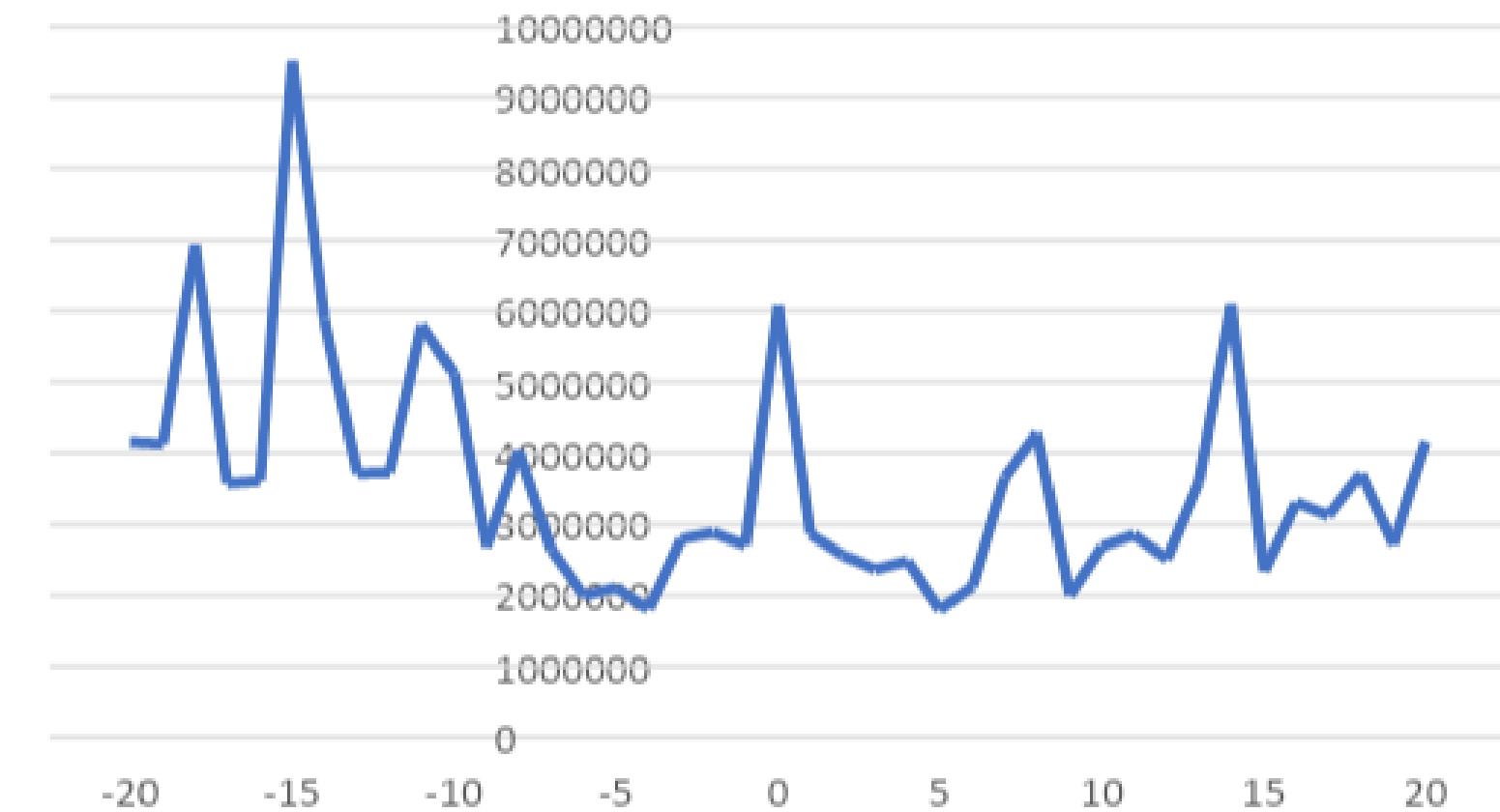
Buyback Results For Tata Consultancy Services

Volume

Volume vs Time

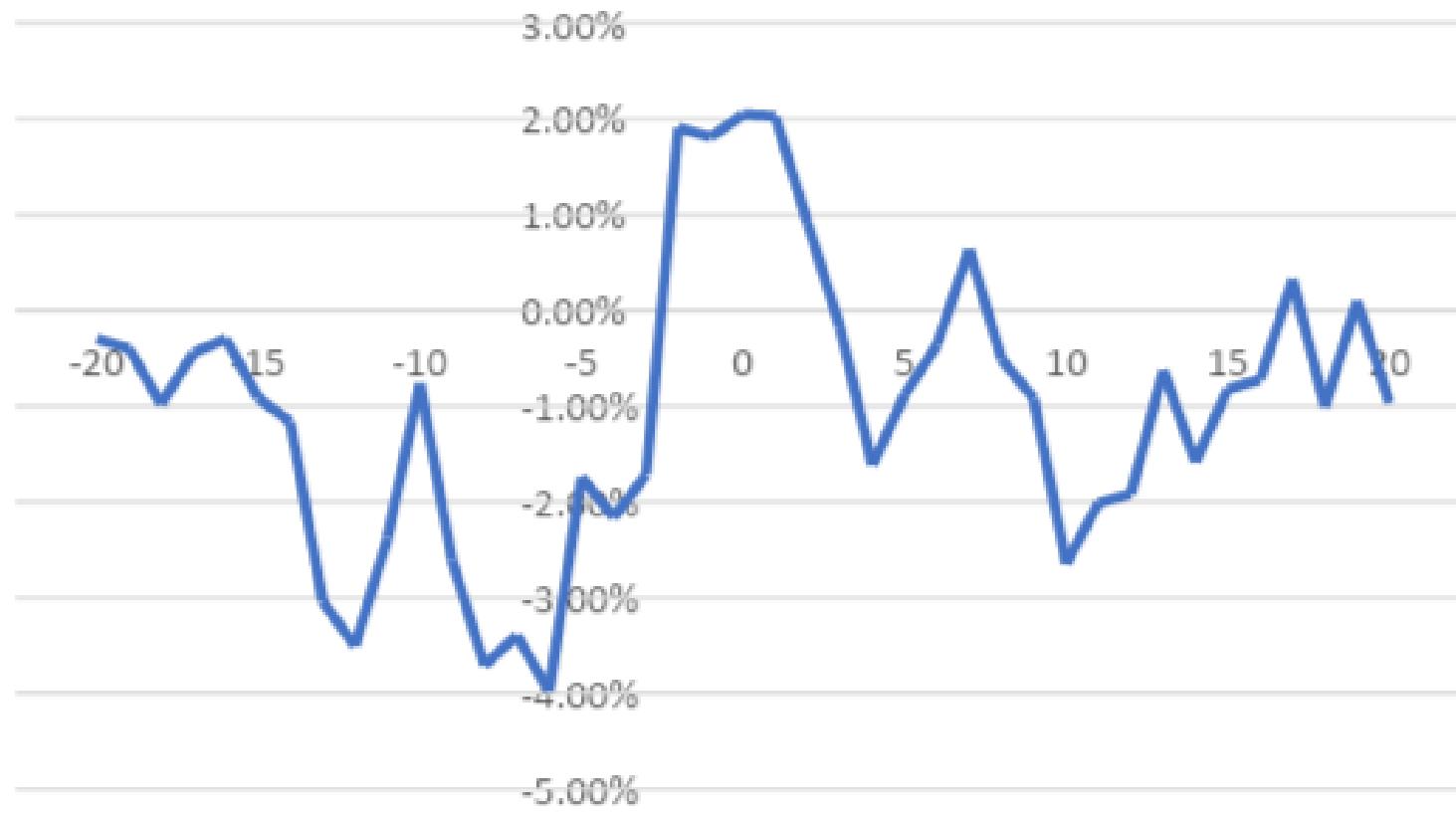


Volume vs Time

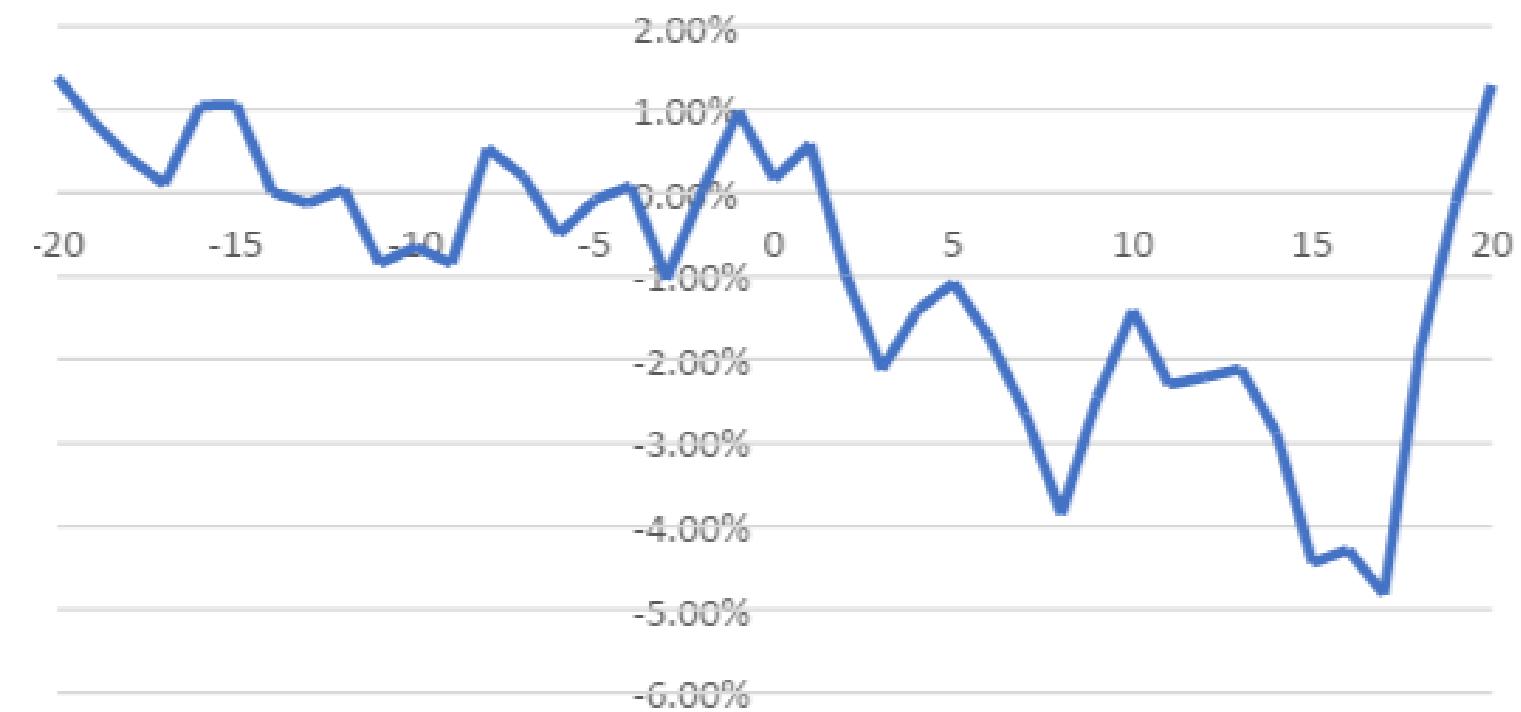


Volume increase was observed just after the announcement meaning that buyback had an impact on the perception of market about the company.

Cumulative Abnormal Returns



Above chart shows Cumulative abnormal returns around announcement date. No significant abnormal returns were observed during the period.

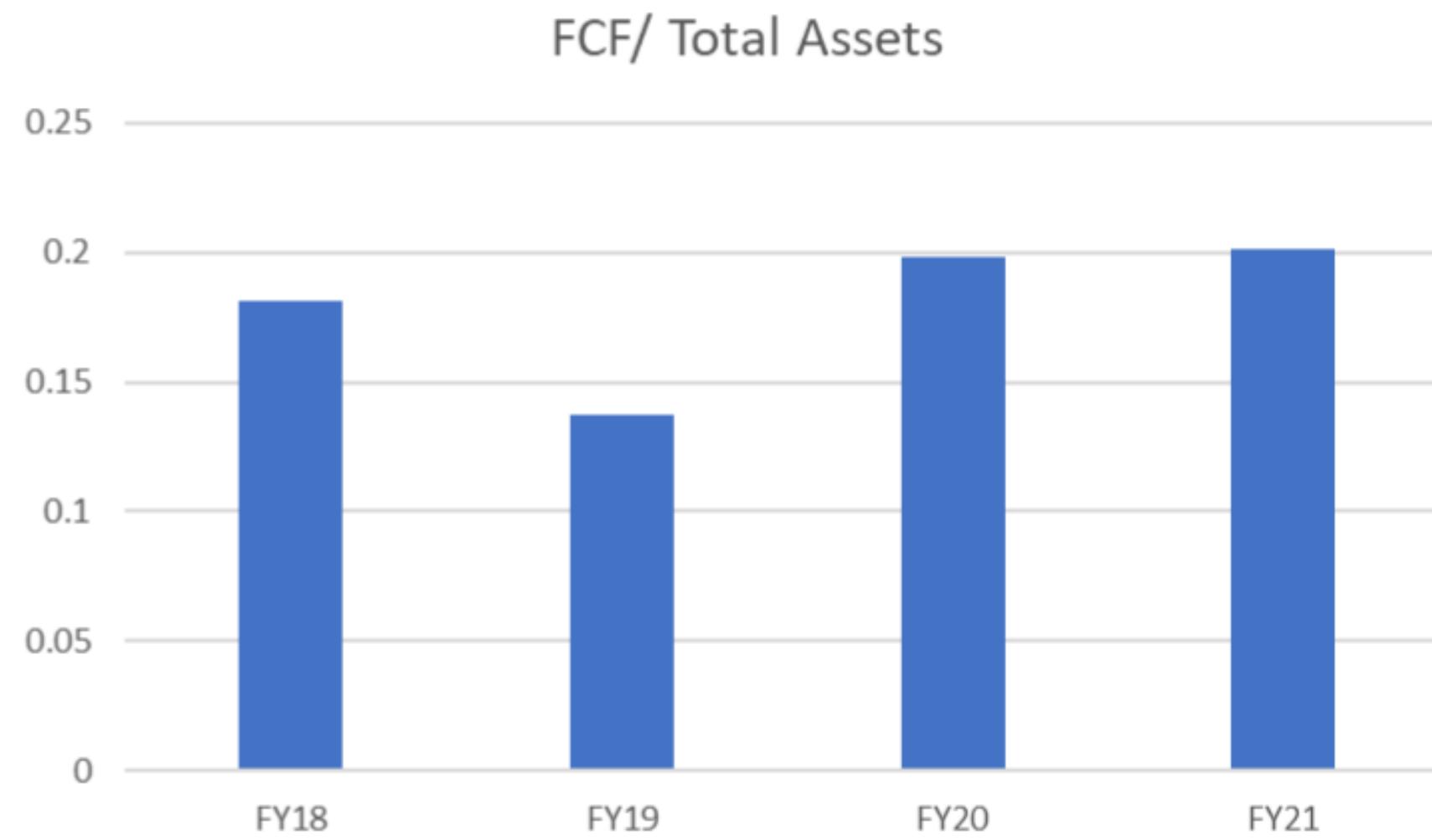


Above chart shows Cumulative abnormal returns around opening date. No significant abnormal returns were observed during the period.

Free Cash Flow Hypothesis

Takeover Deterrence Hypothesis

TCS is the second largest company in India by market capitalization. Also, the promoters hold more than 70% of the company's stake. This makes TCS invulnerable to a hostile takeover. Therefore, Takeover Deterrence Hypothesis is incorrect in this case.

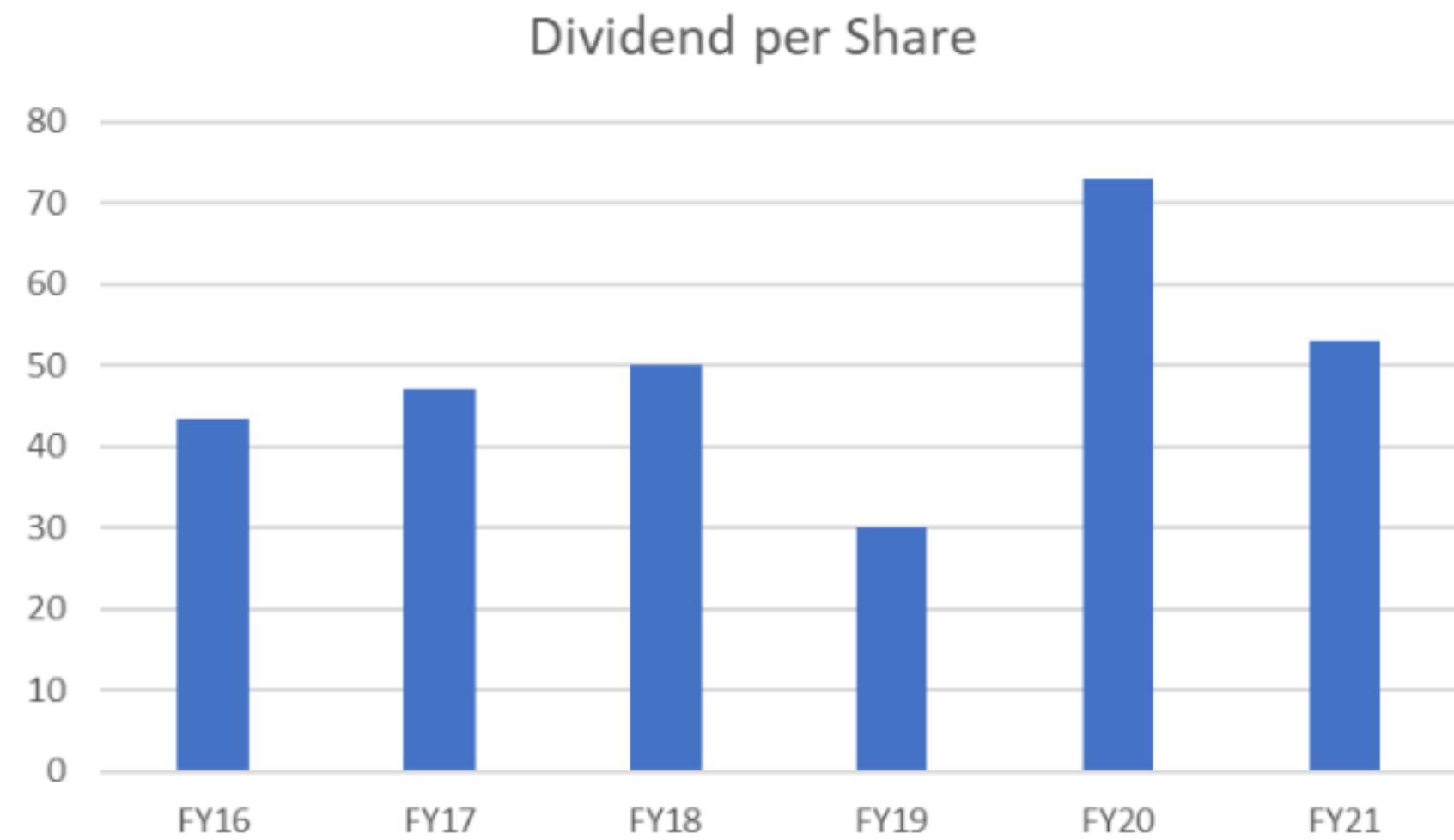


From the above chart, we can see that the company's FCF/Total assets was above its 3-year median. Also, this ratio increased significantly from FY19. The company also bought back its shares in FY19. Therefore, we can conclude that this hypothesis is correct.

Substitution Hypothesis

Signaling Hypothesis

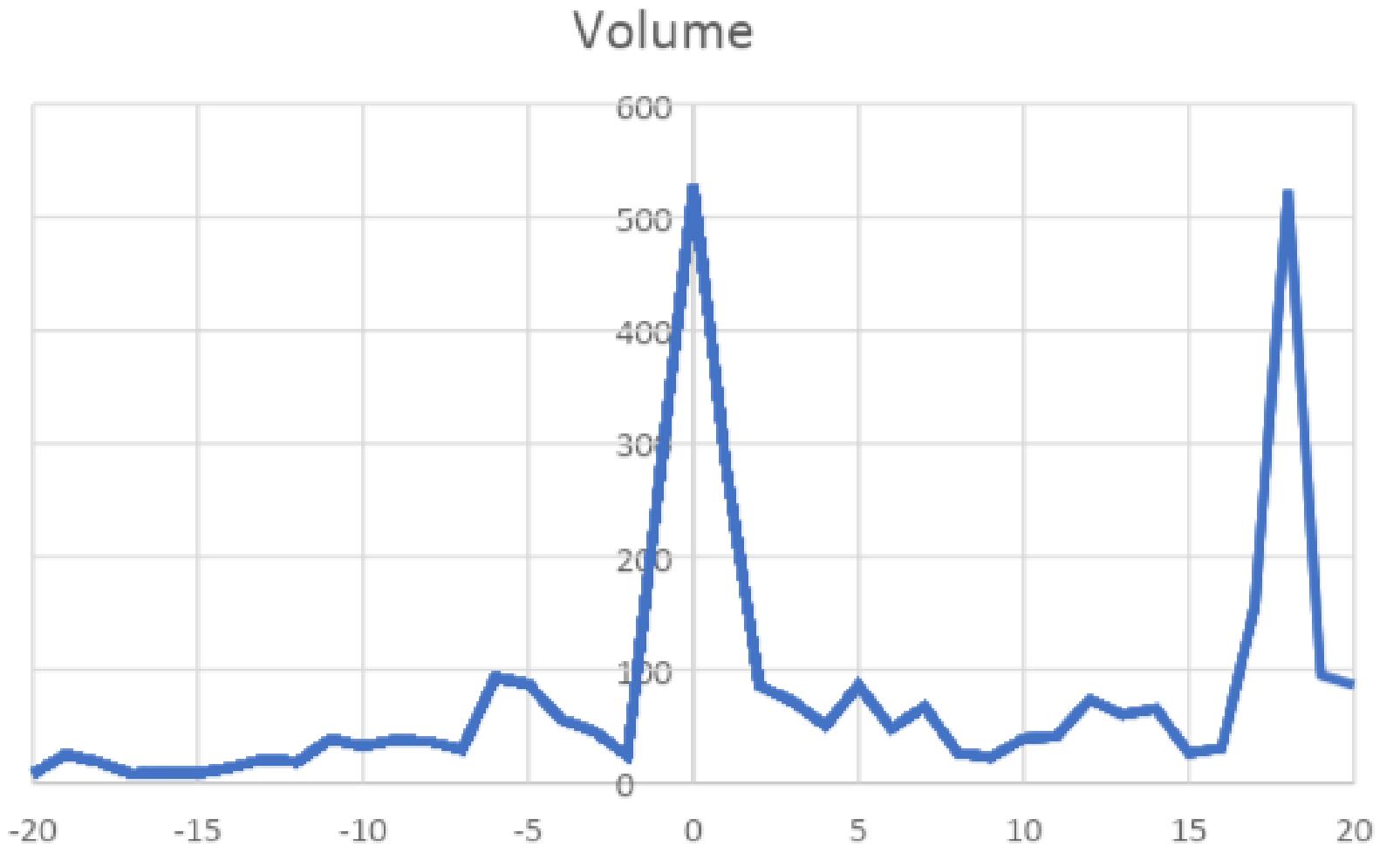
On announcement, both of P/E and P/B were higher than the company's last 5-year median values of these ratio and were also higher than the industry. We can conclude that the company was not undervalued during the time of the announcement. Therefore, Signaling hypothesis stands incorrect here.



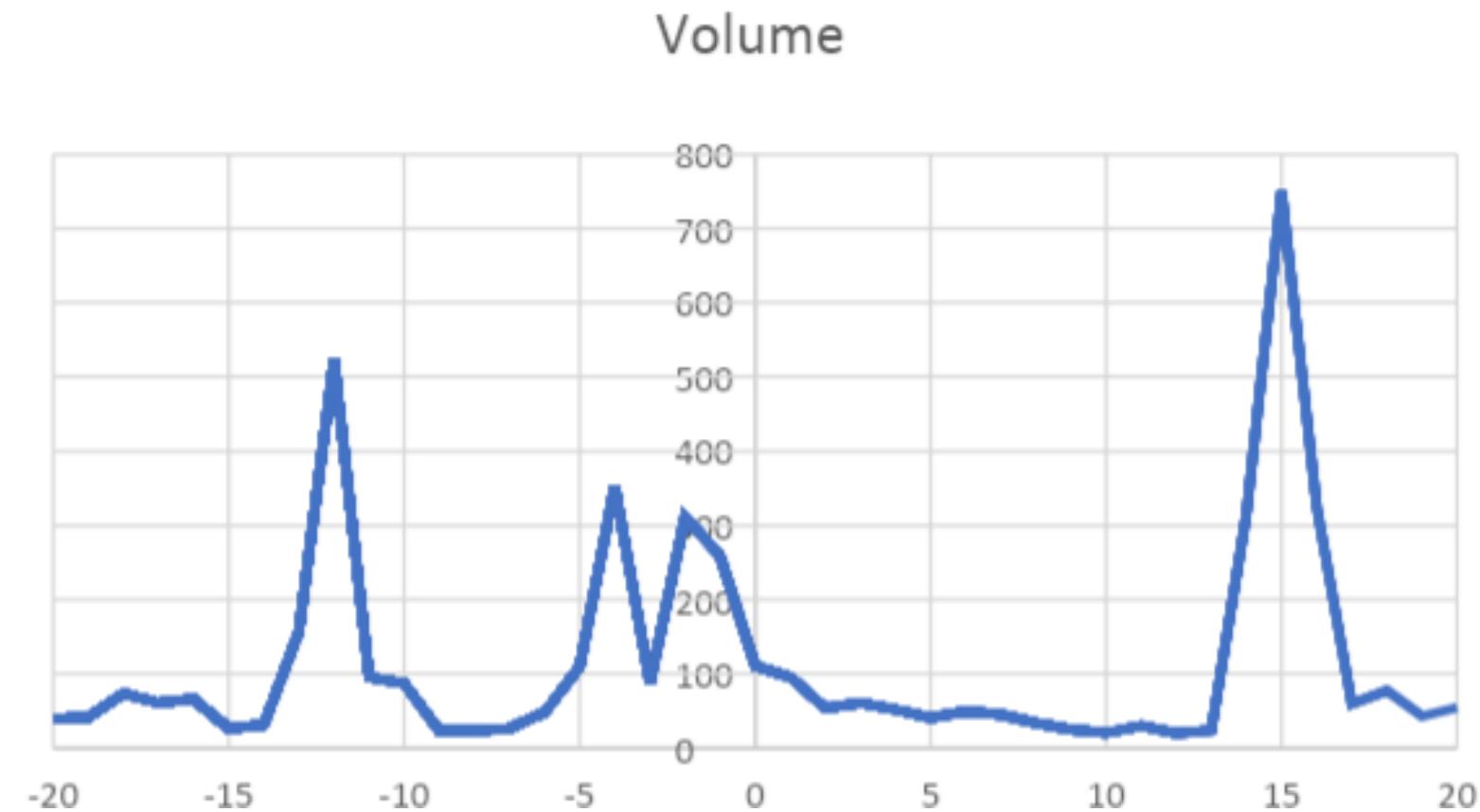
In spite of the increase in net income from FY20, the Dividend per share dropped significantly in FY21. The dividend per share also decreased in FY19, when the company bought back its shares. It is clear from these observations that the hypothesis is correct.

Buyback Results For Infobeans

Volume



Significant volume increases were observed on announcement date. Volume increase on Day t+18 (21 May 2021) can be observed. No specific reason for this anomaly was discovered and even the stock exchange raised its concern about the abnormal price movement.



Significant volume increase as observed on Day t+15 corresponding to the finalization of the buyback acceptance date.
Volume increase on Day t-12 corresponds to 21 May 2021.

Signaling Hypothesis

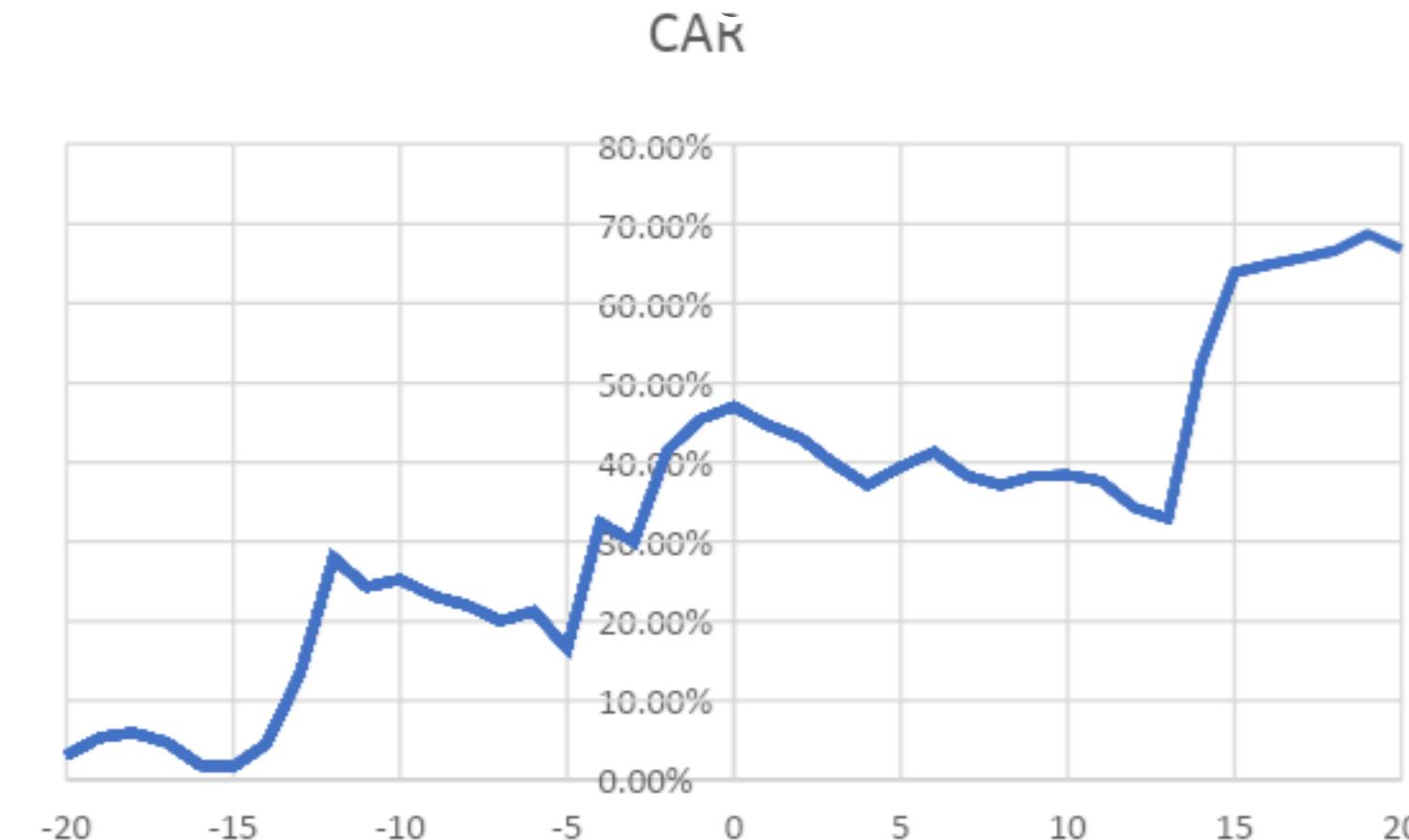
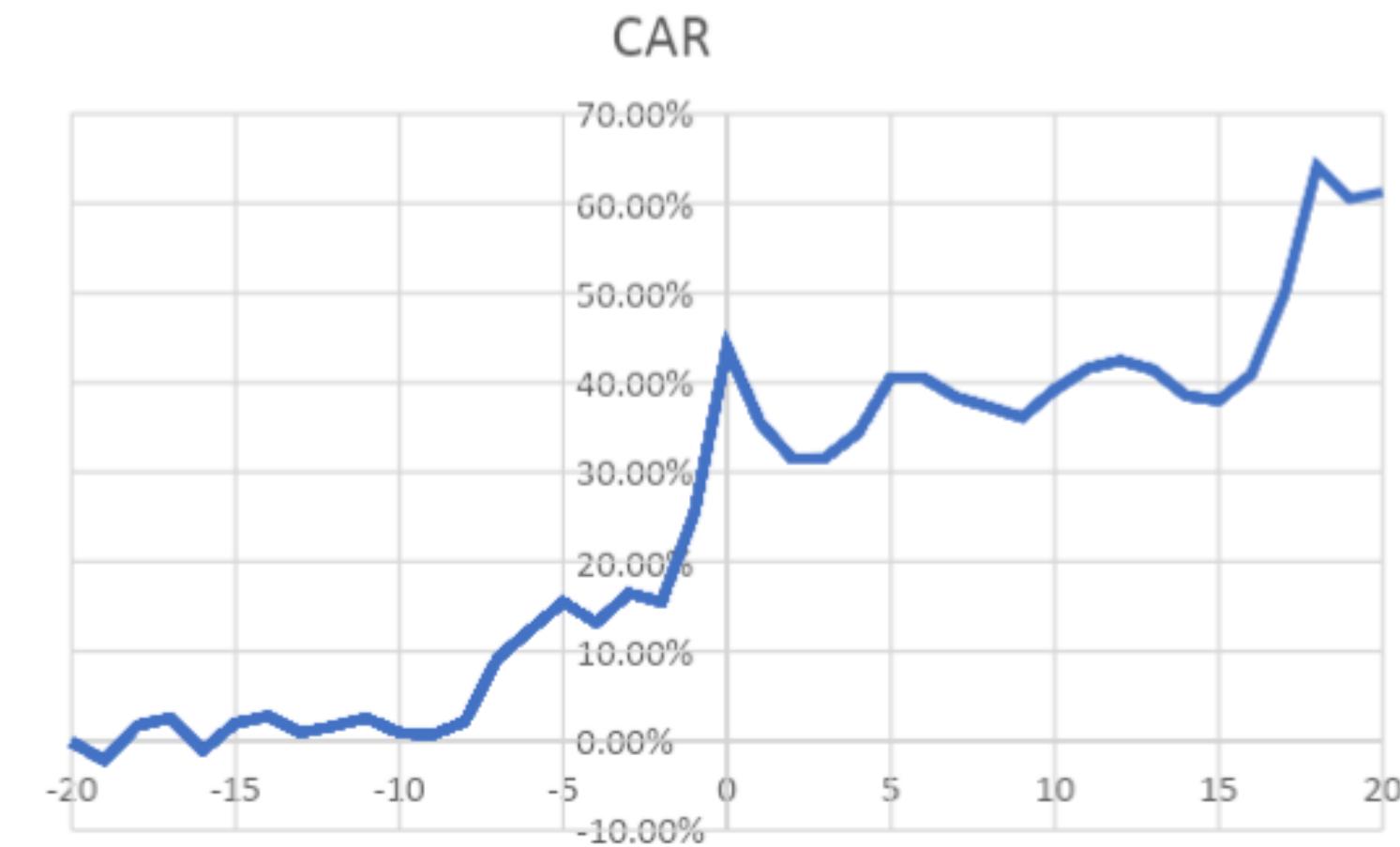
On the announcement date, Infobeans had a P/E and P/B ratio of 18.71 and 3.58 respectively. Both of these were considerably lower than the industry P/E of 27.59 and P/B of 8.21. We can infer that the company was undervalued. Thus, the Signaling hypothesis stands correct here.

Quarter	Dec-21	Sep-21	Jun-21	Mar-21	Dec-20
Promoter	74.55	74.66	74.69	74.97	74.97

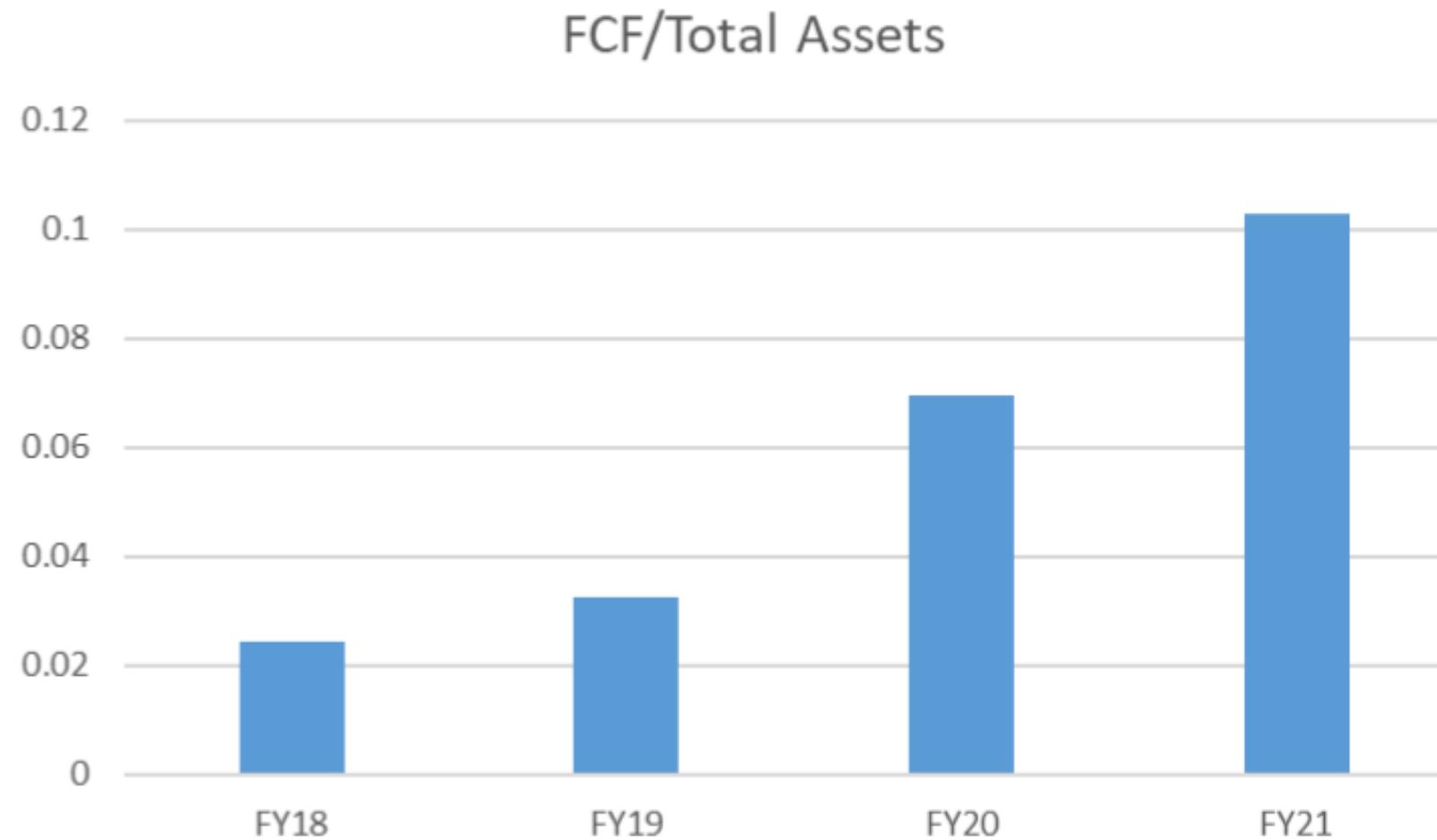
Takeover Deterrence Hypothesis

Closing date of 21 June 2021. There was not a significant change in the shareholding of promoters and just a slight decrease is observed. Therefore, we can conclude that Takeover Deterrence Hypothesis stands incorrect here.

Cumulative Abnormal Returns

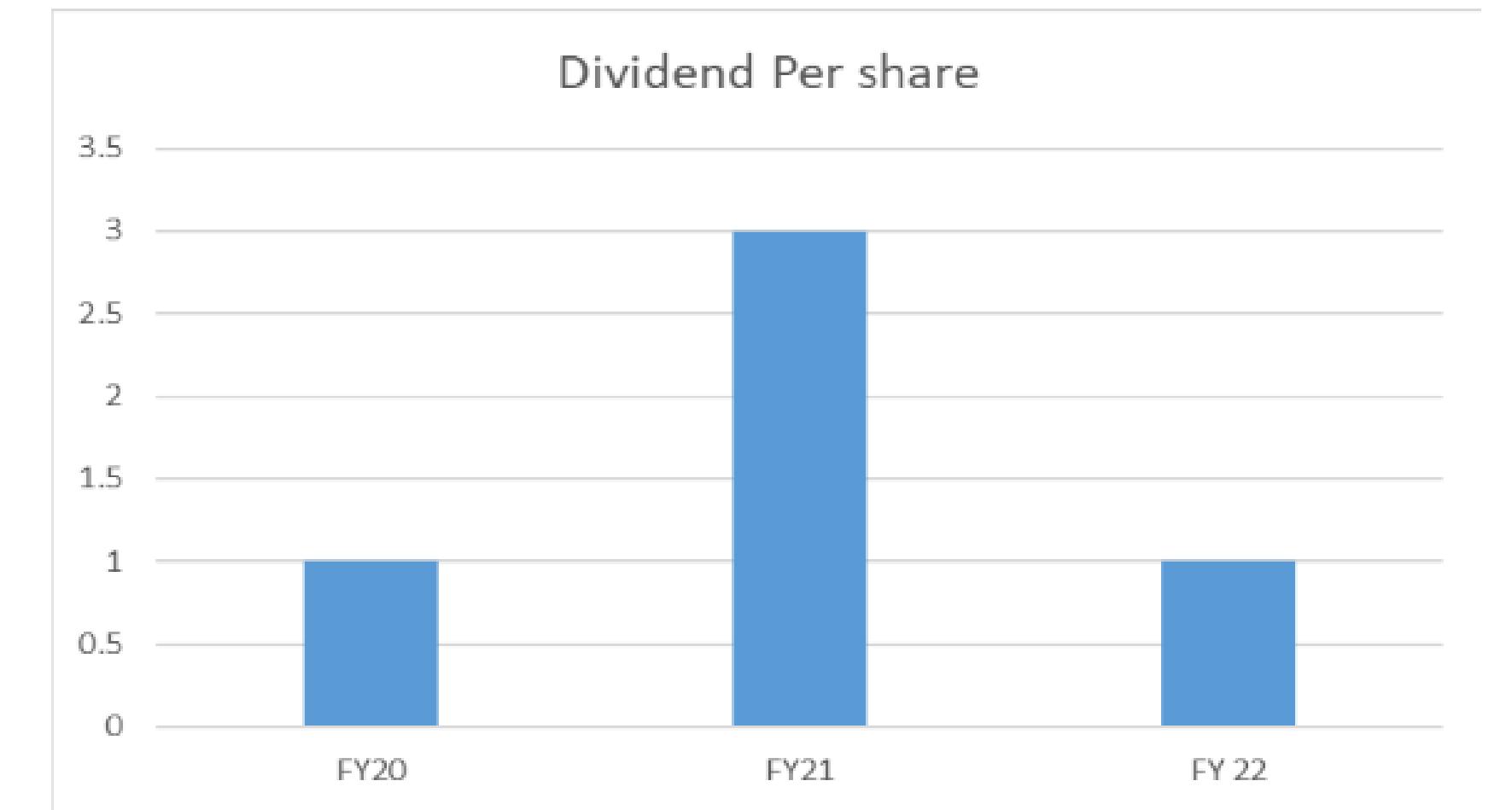


Free Cash Flow Hypothesis



We can observe the ratio of Free cash flows to Total assets increasing year by year. The buyback was announced on 26 April 2021 just after the end of FY21. There was a significant increase from FY20 to FY21. Thus it can be deduced that increased cash Free cash flows had a positive impact on the tendency of the company to buy back its share.

Substitution Hypothesis



Inspite of the net income rising from FY20 to FY21, the dividend per share didn't increase. The total payout(Rs.5 per share) of increased from FY21 to FY22 but the method was buyback along with dividends in FY22.

Limitations

- The study was conducted when FED was continuously increasing Interest rates. This affected the Indian market severely. There was an abnormal movement in stock prices during this period.
- The event window of our study coincided with other corporate events happening in the company. Quarterly Result announcements may also have affected the results of the study.
- There was an ongoing Russia-Ukraine war during the period of the study. China was affected by the COVID-19 pandemic during this period. These two factors made metal prices extremely volatile.
- Since the stock split happened recently for both the company, the long-term impact of the corporate action could not be studied.
- The data for the number of investors is released quarterly. Consequently, the immediate effect of the split could not be studied.

Conclusion

1. It was observed that the impact of Stock Splits and Buybacks on the price are not always positive, unlike concluded in previous studies.
2. They are particularly beneficial for small-cap companies which are undervalued.
3. Instances of Insider Trading / Information leak were observed in case of the Jubilant 2022 split.
4. Corporate Actions attract retail investors, and increased no. of investors after the event was observed in all the cases

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Link to the Report: <https://t.ly/W5fe>