Analysis of pre-and post-period demonetarization trends with special reference to NIFTY-50

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Abstract: Demonetarization is an economic activity to cancel the existing currency in an economy. In India, 2016 November 08 witnessed such an act from Government of India. The government proposed the demineralization with an objective saving the economy from black money, counterfeit notes and terrorism. This study proposed to evaluate the impact of demonetarization for a period of pre and post 100 days and what was the trend if there was no demonetarization. Data for analyzing the study taken from secondary market, particularly from NIFTY-50. Linear regression and Graphs are the tools using here in this study.

Key words – Demonetarization, Trend, NSE, NIFTY-50.

I. Introduction

Demonetarization is an act of cancelling existing currencies from the economy or of cancelling a legal tender of a currency. Usually a new currency replaces the old one, or it can be stored forever. The history of demonetarization is equal to the history of money, as we have seen many times in the past. The aim of demonetarization is to minimize money supply, counterfeit notes and black money in the economy. The act of demonetarization by the central government has brought back the economy by 2% to 3% for the 2016-17 financial years and has far-reaching effects in the economy. The ban has paralyzed all sectors of the economy, except banking and e-commerce. The aim of this study is to show how the ban affects the Indian stock exchanges, particularly the NSE and NIFTY-50 because Stock indexes are the indicators of the performances of an economy so any direct policy changes may affect the performance of the Stock exchanges.

II. The history of Demonetarization in India

Since 1946 Indian economy witnessed three demonetarization including one in 8 November 2016. All three of these demonetarization are aimed at curbing black money and counterfeiting counterfeet notes.

The very first demonetization in India was announced long back in 1946, the currency notes of Rs 1,000 and Rs 10,000 were removed from circulation. In fact the ban did not really have much impact in the economy because; currency of such a higher denomination was not accessible to the common people. However, later on 1954 the government reintroduced the bank notes in addition to Rs.5000 notes.

In 1977 the first non congress Janatha government come in to power under the leadership of Mr. Morarji Desai, he took strong decision against black money and counterfeiting notes. On 6th January 1978 the Janatha Government introduced “High Denomination Bank Notes (Demonetization) Act”, the Act recommended withdrawal currencies of Rs.1000, Rs.5000 and Rs. 10000 from the economy.

On 8 November 2016, the Prime Minister of India surprisingly announced that an existing higher denomination currency such as Rs 500 and Rs 1000 would cease to exist in the economy. The Government has also introduced new Rs 500 and Rs 2000 notes and
promoted a cash-free economy. Nothing has happened with lower denomination currencies like Rs 10, Rs 20, Rs 50, Rs 100 and coins, but the government replaces the lower denomination currencies with a new design.

**Background and Objective of Demonetarization in November 2016**

A report submitted by CBDT to central Government in 2012 regarding demonetarization, in this report they strongly oppose demonetarization because it is not the solution to grab black money from the economy, which is largely held in the form of benami properties, bullion and jewellery. According to data from income tax surveys, black money holders kept only 6% or less of their wealth as cash, suggesting that this was targeted. However, the cessation of black money and countervailing currencies from the economy was a popular election campaign of the ruling party. The government believed that, as a result of demonetarization, around 3 to 4 Laksh Crore Rupees would bring back RBI, a way to develop the digital economy and eradicate the counter currency from the market. In my view, there was an indirect reason for demonetarization, which was purely political, to stop all funds from the leading opposition parties even before the next central election.

**Objective of Demonetarization in November 2016**

There are three major objective points out by the central government for demonetarization:

- Wipe out black money
- Destroy fake notes
- Increase cash less transactions
- Stop terror funding

**III. Need and Importance of the Study**

Four and half years after the ban still it is a hot topic. Former RBI Governor Dr. Raguram Rajan has said that the demonetarization will have a negative impact on the country for the next 25 years. The reality is that many companies have not yet recovered from the impact of the demonetarization. Now our stock exchanges are breaking records, we could have made even better progress if it hadn't been for a note ban in India. Here I am looking to study 100 days trend before and after demonetarization, it will give a better view about NSC index during that period if there was no demonetarization.

**IV. Literature Review**

*(Pranjal Agrawal, 2019)* Studied the impact of demonetarization on stock market, in this study they found out that the realty sector is highly correlated with the performance of NIFTY 50 during the pre demonetarization period. While the post demonetarization Banking sector highly influence the performance of the NIFTY 50 than any other sector.

*(Manish R Pathak, 2017)* According to them demonetisation doesn’t impact on impact on Indian stock market. The initial stage there were a high negative correlation between each other, however after 50 days of demonetarization there was no correlation between dematerialization and stock market in India.

*(Swati Chauhan, 2017)* analysed demonetarization did not make any impact over stock price in Indian capital market, it was only a short term phenomena and recovered in quick time.

*(Sandhya Darshan Dash, 2017)* explored after the demonstration announce from the Prime Minister the performance of Banking shares went down, the individual market price of share decreased and they found out that the ban significantly influence the performance of this sector. This study based on BANKEX index therefore further studies initiated with regards to other variable like NPA, capitalization etc.

*(Dr. S. Padmavathy, 2017)* The study concludes that the variation of Banking and Automobile industry with respect to demonetarization was a short term phenomenon, the Banking sector had high abnormal gain than Automobile industry in between 5 to 15 days after the currency ban. From the analysis it is concluded that the investors didn’t gained significant abnormal return for the rest of the study period and does not have any significant impact over Banking and Automobile industry in Indian Capital Market.

*(Hemlata Tiwari, 2017)* According to him demonetarization is a positive step taken by the central government because all sectors in Indian economy shows a positive performance in post demonetarization period apart from unorganized sector and rural sector due to liquidity.
V. **Objective of the study**

- To assess the pre and post trend in NSE with respect to Demonetarization
- To understand the trend if Demonetarization was not implemented

VI. **Methodology of the study**

An analytical study entirely based on secondary data collected from NSE website, Newspapers, Websites and research articles. In order to determine the trend and trend forecast on NIFTY 50, a 201 day NIFTY 50 closing point to be considered dated from 13th June 2016 to 3rd April 2017, exactly 100 days before and 100 days after (October 8, 2016) demonetarization. In this study, I will try to analyse the pre-and post-trend in the NIFTY 50 index with regard to the currency ban in 2016 and what was the trend if the central government did not implement the currency ban through Linear regression analysis.

**Linear regression**

Linear regression attempts to model the relationship between two variables by fitting a linear equation to observed data. One variable is considered to be an explanatory variable, and the other is considered to be a dependent variable.

A linear regression line has an equation of the form \[Y = b_0 + b_1x_1 + b_2x_2 + \ldots + b_nx_n\]

- Where \(X = \) Dependent Variable (DV)
- \(X_1, X_2, X_n = \) Independent Variable (IV)
- \(b_0 = \) Intercept
- \(b_1, b_2 \ldots = \) Coefficient
- \(n = \) number of observation

VII. **Analysis and interpretation**

![Pre demonetarization trend of NIFTY-50](image)

Figure 1

Pre demonetarization Trend of NIFTY-50

Data represented - 13th Jun 2016 to 8th November.

The resultant straight line is upward sloping which indicate that this is a positive relationship in between given variable dates and Index, i.e. as date advances NIFTY- 50 increasing. As per Least Square Principle (Line of Fit) the trend line is upward sloping which means there is a direct relationship between the date and NIFTY- 50.

Here, \(r^2 = 0.412\), and \(Y = 2.964x - 117735\)
Figure 2
Actual trend and Forecasted trend of NIFTY -50

Data represented – 13th June2016 to 3rd April 2017

The above graph shows the actual performance of NIFTY-50 (pre and post demonetarization) and forecasted trend of, if there was no demonetarization. The average trend of pre demonetarization was upward slopping however the trend was slightly slopping down which is close to the demonetarization date (8th November 2016). In the early days of note ban, NIFTY-50 could be see collapsing and it took about three months for back to the forecasted trend. The impact of demonetarization makes only a temporary to NIFTY -50 in long run we cannot seen any impact of demonetarization effect on NIFTY-50 as well as the entire capital market in the country.

VIII. Findings
The study found out that the demonetization on NIFTY -50 negatively influenced during the first two weeks, however it could not makes far reaching effect on NIFTY -50. The figure-2 represents the actual trend and forecasted trend, if there was no demonetarization. In long run both lines are moving in the same trend which means that after 100 days of demonetarization no impact in the market.

IX. Conclusion
The act of currency ban implemented in India with multiple objectives but the primary objective is that the revival of Indian economy, still there is a strong discussion on it weather it is successful or not, indicate the effect over economy. In this study the performance of NIFTY-50 analyzed with reference to pre and post demonetarization period for a period of 201 days. The study shows that the currency ban only influenced the stock markets in India for a shorter period of time; in long run demonetarization could not make any impact over NIFTY-50.

X. Bibliography


