

# VOLATILITY OF NAV WITH REFERENCE TO DEMONETISATION – A SPECIAL EMPHASIS TO SBI BANKING & FINANCIAL SERVICES FUND

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## ABSTRACT

A currency in circulation is being discontinued and replaced by a new one in the economy is the whole concept behind Demonetisation. Restricting of the 500 and 1000 section money notes happened as a lawful delicate on declaring demonetisation on November 2016 by Prime Minister Narendra Modi. In other words, it can also be said that demonetization is an act of stripping a currency unit of its status as legal tender. The sudden declaration of demonetisation in the country has created lots of chaos and confusion among the common people of the country. The government explains that the main objective of this move was to curb the black money, corruption and fake money menace. This study is conducted to understand the volatility of NAV due to demonetisation. Mutual fund's cost depends on price per unit, which is its Net Asset Value or NAV.

**Keywords: Demonetisation, Net Asset Value, Mutual fund**

## INTRODUCTION

Money is something which is accepted as a medium of exchange, a unit of account, a store of value and standard of deferred payments. Only cash and currency are included in definition of money. Demonetisation means making legal tender money invalid or taking away of the four above mentioned functions of money. Prime Minister Narendra Modi announced on 8<sup>th</sup> November, 2016 that Rs. 500 and Rs. 1000 would cease to be legal tender from midnight onwards. This announcement sucked out 86% of the currency notes amounting to 15.44 lakh crore, in circulation till then. The major reason for this drastic measure was taken to control back economy which is run by black money, havala money and fake currency, which is used to finance terrorism and other unlawful and underworld activities. Until December 30, 2016, the demonetised currency in possession can be deposited with the banking system.

Cash in the economy

Estimates suggest that the reduction in GDP could be somewhere between 10 to 330 basis points. Given the widespread reliance on cash, the actual impact could be bigger. The following highlight the dependence of the Indian economy on cash.

- India is amongst the most cash-intensive economies in the world with a cash –GDP ratio of 12%.
- Cash in circulation to private consumption ratio in India is 20%
- Card transaction account for 4% of the personal consumption expenditure.

In such a cash-dependent economy, all of a sudden around 86% of the cash supply has been rendered useless. This has effectively imposed a tight constraint on real economic activity. This constraint will initially be felt most acutely in the cash-intensive sectors such as agriculture, construction, gems, and jewellery, textile, trade, transportation, and real estate, as well as in the activities in the vast informal sector of the country. Beyond the initial impact, the shock from demonetisation is likely to set off a domino effects that will impinge on activities far removed from the cash intensive sectors. This impact may result in the protracted economic slowdown going beyond the current financial year.

It is likely that firms and household will innovative is an attempt to get around the cash constraint. Formal financial services will provide support to those who have access to them. Firms in the retail business that utilise the formal financial services will face a rise in demand as consumers shift from the cash economy to the digital economy. These innovations will dampen the effects of the shock to some extent, however, they cannot act as much of a cushion in an economy which is so overwhelmingly dependent on cash. So, even if the share of digital transactions doubles, it would still represent only a small portion of the transactions in the economy.

A mutual fund is a pool of funds collected from multiple investors which invests in assets like stocks and bonds. Mutual funds are managed by Asset Management Companies (AMCs). Each AMC will typically have several mutual fund schemes. The total size of the mutual fund industry in India crossed Rs 23 lakh crore in 2018.

People nowadays prefer mutual funds due to its liquidity. It gives them exposure to a basket of stocks and bonds at a very low cost. Mutual fund expense ratios are typically 1.5-2.5% of the investment. This amount pays for fund administration, fund manager fees and much else. This is possible because these costs are spread between hundreds of different investors. Mutual funds are tightly regulated by the Securities and Exchange Board of India (SEBI) and their NAV (Net

Asset Value) is disclosed on a daily basis. Their portfolios are also disclosed each month and various other details about are available in the public domain.

People will have to first select a fund category. Equity funds should be chosen if they are willing to take a high level of risk and have a time horizon of more than 5 years. For a moderate risk appetite, one will have to look at hybrid funds. If one have a low risk appetite, one can stick to debt funds. All mutual funds, even debt funds carry some risk.

Once the choice of fund category is done the next step is to select an individual fund by comparing its performance to its benchmark and peers over a reasonably long period of time. Other factors to be taken into consideration are fund manager's experience, portfolio, expense ratio, etc.

### **NEED FOR THE STUDY**

Anyone can invest in mutual funds. The minimum investment can be as low as Rs 500. Both resident Indians and NRIs (Non-resident Indians) can invest in mutual funds. Mutual fund investment can be done in the name of your spouse or kids. If the child is a minor (below 18), parents details have to be mentioned while investing and they have to operate the account till he or she turns 18. Even partnerships, LLPs, Trusts and Companies can invest in mutual funds. Mutual funds are raised through small investments. Due to demonetisations many changes have taken place in the financial sector. As lakhs of people have invested their hard earned money in mutual fund, the study to know their performance is necessary. So volatility of NAV is taken into consideration for this study.

### **SIGNIFICANCE OF THE STUDY**

A mutual fund's overall cost will depend on the price per fund unit. This is its Net Asset Value or NAV. Mutual funds begin with a unit cost of Rs. 10 and it rises as a fund's assets under the management grow. So, popular funds will have a higher NAV than a less popular one. Hence it is important to know the Net Asset Value when selecting a mutual fund. The unpredictability on the NAV due to demonetisation has to be scrutinised.

### **OBJECTIVES**

- To compare the volatility of NAV with reference to demonetisation
- To evaluate the performance of mutual funds in relation with demonetisation

**HYPOTHESIS**

There is no significant difference in the average price of net asset value of SBI mutual fund with reference to the three periods considered.

**PRE-DEMONETISATION NAV OF SBI BANKING & FINANCIAL SERVICES FUNDS**

Fund Name	Scheme Name	NAV Date	NAV			05-Aug-16	11.68880
SBI Banking & Financial Services Fund	SBI Banking & Financial Services Fund - Direct Plan - Dividend					08-Aug-16	11.70660
						09-Aug-16	11.67110
						10-Aug-16	11.52090
						11-Aug-16	11.47270
						12-Aug-16	11.64440
						16-Aug-16	11.64400
						17-Aug-16	11.70990
						18-Aug-16	11.81320
						19-Aug-16	11.83110
						22-Aug-16	11.79950
						23-Aug-16	11.76350
						24-Aug-16	11.80550
						25-Aug-16	11.81750
						26-Aug-16	11.85400
						29-Aug-16	11.86070
						30-Aug-16	11.98620
						31-Aug-16	12.14240
						01-Sep-16	12.11960
						02-Sep-16	12.10970
						06-Sep-16	12.38670
						07-Sep-16	12.28010
						08-Sep-16	12.39080
						09-Sep-16	12.28600
						12-Sep-16	12.02880
						14-Sep-16	12.07560
						15-Sep-16	12.05470
						16-Sep-16	12.07140
						19-Sep-16	12.01500
						20-Sep-16	11.93640
						21-Sep-16	11.97280
				22-Sep-16	12.19190		

**POST DEMONETISATION NAV OF SBI BANKING & FINANCIAL SERVICES FUNDS**

Fund Name	Scheme Name	NAV Date	NAV			02-Dec-16	11.0783
SBI Banking & Financial Services Fund	SBI Banking & Financial Services Fund - Direct Plan - Dividend					05-Dec-16	11.1068
						06-Dec-16	11.1147
						07-Dec-16	11.0105
						08-Dec-16	11.1683
						09-Dec-16	11.1864
						12-Dec-16	11.0214
						13-Dec-16	11.0249
						14-Dec-16	10.9684
						15-Dec-16	11.0734
						16-Dec-16	11.0476
						19-Dec-16	10.9819
						20-Dec-16	10.8781
						21-Dec-16	10.8812
						22-Dec-16	10.7468
						23-Dec-16	10.7349
						26-Dec-16	10.6197
						27-Dec-16	10.7183
						28-Dec-16	10.7388
						29-Dec-16	10.867
						30-Dec-16	10.932

	02-Jan-17	10.8505
	03-Jan-17	10.8788
	04-Jan-17	10.8549
	05-Jan-17	10.9632
	06-Jan-17	11.0024
	09-Jan-17	10.9938
	10-Jan-17	11.0724
	11-Jan-17	11.2733
	12-Jan-17	11.2547
	13-Jan-17	11.2972
	16-Jan-17	11.4042
	17-Jan-17	11.4194
	18-Jan-17	11.4658
	19-Jan-17	11.4501
	20-Jan-17	11.275
	23-Jan-17	11.3581
	24-Jan-17	11.449
	25-Jan-17	11.6665
	27-Jan-17	11.8078
	30-Jan-17	11.7261

	31-Jan-17	11.6637
	01-Feb-17	11.9854
	02-Feb-17	11.9961
	03-Feb-17	12.0243
	06-Feb-17	12.114
	07-Feb-17	12.1165
	08-Feb-17	12.068
	09-Feb-17	12.0405
	10-Feb-17	12.0341
	13-Feb-17	12.0565
	14-Feb-17	12.0833
	15-Feb-17	12.0252
	16-Feb-17	12.11
	17-Feb-17	12.2612
	20-Feb-17	12.3041
	21-Feb-17	12.3574
	22-Feb-17	12.3586
	23-Feb-17	12.4501
	27-Feb-17	12.3477
	28-Feb-17	12.3374

### CURRENT NAV OF SBI BANKING & FINANCIAL SERVICES FUNDS

Fund Name	Scheme Name	NAV Date	NAV			
SBI Banking & Financial Services Fund	SBI Banking & Financial Services Fund - Direct Plan - Dividend	03-Dec-18	14.8249		22-Jan-19	15.0839
		04-Dec-18	14.8266		23-Jan-19	15.0503
		05-Dec-18	14.7197		24-Jan-19	15.0387
		06-Dec-18	14.5697		25-Jan-19	14.9501
		07-Dec-18	14.8181		28-Jan-19	14.7053
		10-Dec-18	14.4994		29-Jan-19	14.6852
		11-Dec-18	14.559		30-Jan-19	14.8667
		12-Dec-18	14.8936		31-Jan-19	15.1201
		13-Dec-18	15.1141		01-Feb-19	14.9807
		14-Dec-18	15.2276		04-Feb-19	14.9658
		17-Dec-18	15.3433		05-Feb-19	14.9941
		18-Dec-18	15.4334		06-Feb-19	15.13
		19-Dec-18	15.6467		07-Feb-19	15.2644
		20-Dec-18	15.5393		08-Feb-19	15.249
		21-Dec-18	15.3399		11-Feb-19	15.1762
		24-Dec-18	15.1942		12-Feb-19	15.0804
		26-Dec-18	15.2626		13-Feb-19	15.0512
		27-Dec-18	15.2219		14-Feb-19	15.0622
		28-Dec-18	15.3209		15-Feb-19	14.9117
		31-Dec-18	15.4436		18-Feb-19	14.8193
		01-Jan-19	15.539		19-Feb-19	14.8634
		02-Jan-19	15.3874		20-Feb-19	14.9749
		03-Jan-19	15.2582		21-Feb-19	15.1368
		04-Jan-19	15.314		22-Feb-19	15.1279
		07-Jan-19	15.2819		25-Feb-19	15.1327
		08-Jan-19	15.2843		26-Feb-19	15.0277
		09-Jan-19	15.2947		27-Feb-19	15.0139
		10-Jan-19	15.3294		28-Feb-19	15.0282
		11-Jan-19	15.2961		01-Mar-19	15.1553
		14-Jan-19	15.1738		05-Mar-19	15.5334
		15-Jan-19	15.2815		06-Mar-19	15.6592
		16-Jan-19	15.2646		07-Mar-19	15.6455
		17-Jan-19	15.3016		08-Mar-19	15.7213
18-Jan-19	15.1997		11-Mar-19	15.9451		
21-Jan-19	15.1869		12-Mar-19	16.0671		
			13-Mar-19	16.1706		
			14-Mar-19	16.166		
			15-Mar-19	16.3778		
			18-Mar-19	16.3521		
			19-Mar-19	16.3384		
			20-Mar-19	16.2901		
			22-Mar-19	16.2281		
			25-Mar-19	16.0262		

		26-Mar-19	16.2462			29-Mar-19	16.7007
		28-Mar-19	16.621				

## FINDINGS AND INTERPRETATIONS

Compare the volatility of NAV with reference to demonetisation

One factor ANOVA					
Mean	n	Std. Dev			
11.74791	77	0.430847	PRE-NAV		
11.41675	77	0.511909	POST-NAV		
15.26406	77	0.431686	CURRENT NAV		
12.80957	231	1.803664	Total		
ANOVA table					
Source	SS	df	MS	F	p-value
Treatment	700.050217	2	350.0251083	1656.18	0.000
Error	48.186516	228	0.2113444	RESULT	
Total	748.236732	230	SIGNIFICANT		
Post hoc analysis					
Tukey simultaneous comparison t-values (d.f. = 228)					
		POST-NAV	PRE-NAV	CURRENT NAV	
		11.41675	11.74791	15.26406	
POST-NAV	11.41675				
PRE-NAV	11.74791	4.47*			
CURRENT NAV	15.26406	51.93*	47.46*		
critical values for experiment wise error rate:					
0.05			2.38		

From the table in order to make a detailed analysis of net asset value of SBI mutual fund for 77 weeks where complied by the researcher. Here, the period for the data collection has been grouped into three namely, pre-demonetisation period of 77 weeks, post demonetisation period of 77 weeks, and current period of 77 weeks. According to the table, the pre-demonetisation period average price of net asset value of SBI mutual fund is computed as Rs. 11.47, S.D. 0.43 and post demonetisation net asset value price of SBI mutual fund was Rs. 11.41, S.D. 0.51 and also net asset value of current period of SBI mutual fund is computed as Rs. 15.26, S.D. 0.43

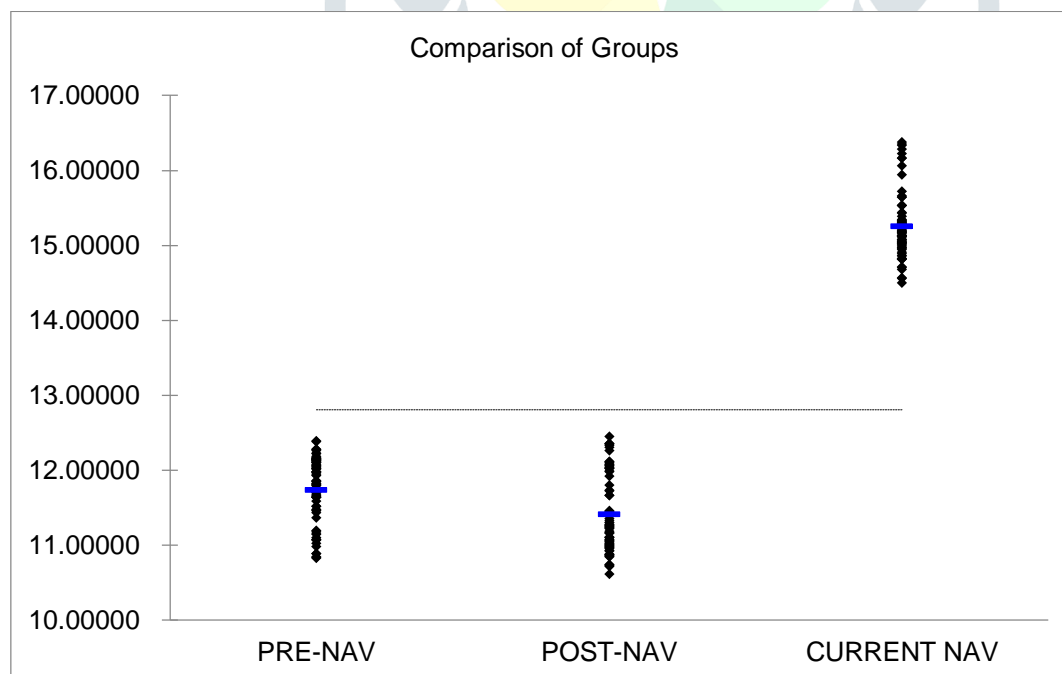
In order to examine the statistical significance of the net asset value and to ascertain whether there is any difference in the price of net asset value for the three periods, one factor ANOVA was performed.

Accordingly the F value is 1656.18 and p value is 0.00 (p less than 5%), which shows that there is significant difference in the average price of net asset value of SBI mutual fund with reference to the three periods considered. Thus the null hypothesis formulated in this regard is rejected.

In order to ascertain the reason for the difference Post hoc analysis with the help of Tukey simultaneous comparison method was performed.

Accordingly the error rate between current NAV and post NAV is 51.93 and current NAV with pre NAV is 47.46 are significant at 5% error rate of 2.38. This implies that the performance of SBI mutual fund during the current period is much more better than post demonetisation period as well as pre demonetisation period, based on the higher mean rate. Similarly, the NAV of pre demonetisation period and post demonetisation period was also examined and it is understood from the analysis that the NAV of pre demonetisation period is more than post demonetisation period.

#### Evaluate the performance of mutual funds in relation with demonetisation



## Correlation Matrix

	<i>PRE-NAV</i>	<i>POST-NAV</i>	<i>CURRENT NAV</i>
<i>PRE-NAV</i>	1.000		
<i>POST-NAV</i>	.352*	1.000	
<i>CURRENT NAV</i>	.354*	.515*	1.000

77

sample size

S

± .224

critical value .05 (two-tail)

A correlation matrix was formed by the researcher to examine the relationship between pre, post and current period NAV. Accordingly, the correlation between post NAV and pre NAV is 0.352 and that of current period NAV with pre NAV is 0.354, but the correlation between current NAV and post NAV is 0.515. All correlation values are significant at 5%.

**CONCLUSION**

From the study it can be concluded that demonetisation has an immediate direct impact on the performance of SBI mutual fund. That means with reference to the effect of demonetisation to the financial sector a slight decrease in the performance of NAV was affected to the SBI mutual fund. But fortunately now the SBI has really revoked from the unfortunate line and now in the growth stage. Hence it is recommended that investors invest their surplus savings into the NAV of SBI mutual fund and it is the best option for the small and margin investors.

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