

Aftershock: Impact of Demonetization on Indian Investments Market

Varsha Gupta¹

Dr. Sanjeev Chaddha²

Abstract: The act of discontinuing a particular currency from circulation and replacing it with a new currency was one of the major and historical decisions taken by our hon'ble Prime Minister Shri Narendra Modi on November 8, 2016 whereby currency notes of Rs 500 and Rs 1000 contributing 86.4% of the currency in circulation, was declared to be banned. It was very disquieting situation in an economy like India where approximately 98% of consumer transactions are cash based and a significant proportion of income is hold in cash form by households. Government opined that this move will tackle the menace of black money, corruption, fake-currency; problem of financial exclusion and will encouraged everyone to deposit hard money lying in their hands into bank accounts. The impact of demonetization was not confined to cash inflows in bank accounts only but it has affected investment market also. So the scope of this paper will include impact of demonetization on Rupee exchange rate, Insurance sector and Indian Stock market with reference to some selected sectors.

Key Words: *Demonetization, Rupee Exchange Rate, Income Disclosure Scheme, SENSEX*

1. Assistant Professor, Baddi University of Emerging Sciences and Technology.
2. Professor & Head MDC MGSIPA, Govt of Punjab, Chandigarh

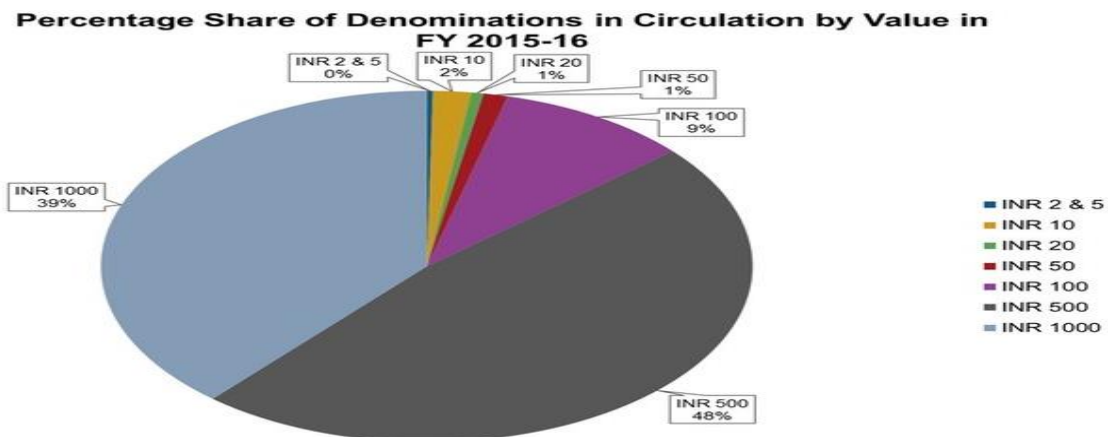
Introduction: On the evening of 8th November 2016, the Prime Minister of India announced one of the boldest moves in the history of India's socio-economic scene i.e. demonetization of old Rs. 500 notes and Rs. 1000. Here notes of 500 and 1000 were being declared invalid. As per Reserve Bank of India, total value of notes in circulation as on March 2016 was Rs. 16.42 lakh crore, out of the same around Rs. 14 lakh crore (87% Approximate) was in form of Rs. 500 and Rs. 1000 notes. Destroying 86% of highly weighted currency in a country like India where most of the transactions are cash based only, was not an easy decision for government. Further

announcement regarding issuance of new Mahatma Gandhi Series notes of Rs 500 and 2000 had been made for further circulation in economy.

Although the movement was not new in India as the same kind of steps has been taken by other governments in previous years also. Before independence 500, Rs. 1,000 and Rs. 10,000 notes were declared invalid as legal tender on January 12, 1946. Then new notes of Rs. 1000, Rs. 5000 and Rs. 10,000 came into economy in 1954. On 16th January 1978, the Morarji Desai led-Janata Party demonetized banknotes of denomination Rs. 1000, 5000 and 10000. RBI introduced a new banknote of Rs. 500 into the economy in 1987 to contain inflation. Denominations of 1, 2, 3, 5, 10, 20 & 25 paise were in circulation till June 30, 2011 but were then withdrawn.

Now on November 8, 2016 the old banknotes of Rs. 500 and Rs. 1000 were barred from being legal tender and new notes of Rs. 2000 were announced to be introduced in economy. According to the RBI's (Reserve Bank of India) Annual Report for April 2015 to March 2016, the value of the currency notes at the end of March 2016 was 16.42 trillion Indian rupees. The 500 rupee and 1,000 rupee currency notes formed 86.4% of the value. In one stroke, the government removed 86.4% of the currency in circulation by value. In terms of volume, the currency notes of these two denominations formed 24.4% of a total 90.27 billion pieces.

RBI data showed that as of March 2016, 632,926 currency notes which were in form of FICN (Fake Indian Currency Note) were counterfeit. As a proportion of NIC (Notes in Circulation), the 1,000 rupee and 500 rupee notes were the highest. Nullifying these FICNs was also part of the demonetization move



The journey started with a big movement in economy by the announcement of Pradhan Mantri Jan Dhan Yojana which was declared on August 15, 2014 by Hon'ble Pradhan Mantri Sh. Narendra Modi. Approx 12.5 crore accounts were opened in just five months upto Jan 31, 2015 having deposit of Rs. 1049962.62 lakhs. The number of accounts further increased to 21.9 crore indicating growth of 82% and amount deposited into these accounts raised to 3804765.47 lakhs indicating 262% increase at the end of May 2016. So the basic purpose of the paper is to analyse the pre and post scenario of demonetization with reference to bank deposits, Jan Dhan Accounts and other investment options.

Figure-1

Objectives of Study

1. To compare the changeover in rupee exchange rate during demonetization time vis a vis since the BJP has been into power.
2. To investigate the impact of demonetization on saving and investment pattern in banking sector, insurance sector and equity market.
3. To analyze the actions taken by government for curbing the black money from economy.

Scope of Study:

On one hand, the opening of the Jan Dhan accounts resulted in a wave of financial inclusion among people and on the other side announcement of income declaration scheme 2016 contributed towards curbing the black money from economy. So paper includes money mobilized under IDS schemes, amount of money deposited, exchanged & withdrawn from banks during demonetization time window, Impact of Demonetization causing change in net inflows of cash deposits in Pradhan Mantri Jan Dhan Accounts (PMJDA), Insurance Sector and equity market. For analyzing the impact and growth scenario in PMJDA, month on month basis (MoM) and year on year basis (YoY) ratios has been calculated based on $(\text{current data} - \text{previous data} / \text{previous data} * 100)$. Apart from this to investigate the difference between Jan Dhan accounts opened, funds deposited there in and number of Zero balance accounts, and Insurance premium collected in current year vis a vis previous year, one way Anova has been used. To

analyze the scenario of equity market, five top companies from each retail, Bank, Food processing, Infrastructure and Automobile Sector has been taken.

Percentage change in return of security's stock price has been calculated. Window of (T-40 to T+40) where in T is the Announcement Date. So Price of Security and Sensex Index value is taken for the window and Return is calculated:

- 1) Percentage changeover in return is calculate using formula $P_1 - P_0 / P_0 * 100$ where in P_1 stands for current day price and P_0 stands for Previous day price
- 2) Abnormal Return is the excess of security return over market return for the period.
- 3) Average Abnormal return is average of all five companies' abnormal return
- 4) CAAR, cumulative average abnormal return has been calculated based on adding next day's value to previous day's value to check the sector wise variation.

About Income Disclosure Scheme (IDS) 2016: Income Declaration Scheme (IDS) 2016 was announced by Narendra Modi led NDA government. According to the terms of this IDS 2016, any income tax assesses might file returns for assets or income that had not been disclosed in the ITR of previous years and thereby they could regularize their wealth. The scheme became effective from 1 June, 2016 and continued till September 30, 2016. Under this scheme, Government had offered a one-time chance to holders of income and assets that had illegally escaped taxes, to come clean by paying a tax and penalty of 45 per cent.

In the biggest ever black money disclosure, approx Rs 65,250 crore of undisclosed assets were declared in the one-time compliance window yielding Rs 29,362 crore in taxes to the government. State of Andhra Pradesh disclosed the highest amount of Rs 13,000 crore followed by finance city of India, Mumbai with a declaration of Rs 8,500 crore. Delhi and Gujarat were almost equal to each other by contesting the number three position, as both states have recovered an amount of Rs 6,000 crore. Again Rs 4,000 crore (Approx) has been collected from Kolkata.

Table-1 indicates the data of voluntary disclosed

Table-1 indicates that in 2016, income disclosure amount raised from Rs. 337 Billions to Rs. 650 billions which is just double of income disclosed twenty years back in Voluntary Disclosure of Income Scheme 1997.

Scenario of cash seize Post Demonetization

Black money mop up in India			
<i>figures in Rs. Billion except when stated otherwise</i>			
Year	Scheme	Income Disclosed	Income as % of GDP/GVA
1951	VDIS Tyagi Scheme	0.7	0.6
1965	VDIS 60:40 scheme	0.5	0.2
1965	VDIS Block Scheme	1.5	0.5
1965	National Defence Gold Bonds & Remittance	0.9	
1975	VDIS	7.4	0.9
1981	Special Bearer Bonds	9.6	
1985	Amnesty Circulars	107.8	4.2
1991	Foreign Remittance Scheme	67.0	
1997	VDIS	337.0	2.3
2013	VCES	NA	NA
2016	Income Declaration*	650.0	0.6

Notes: VDIS=Voluntary Disclosure of Income Scheme; NA=Not Available; VCES=Service Tax Voluntary Compliance Encouragement Scheme, 2013; (*) The income declaration of 2016 has two parts – The IDS window which ended on 31 October; and the current exercise that is ongoing. Figures for the ongoing exercise have not been compiled.

Source: Jefferies report of 2 May 2014 "What's Next: No 5 VDIS?"; Indian Public Finance Statistics; Government data; Media reports;
http://www.aiftponline.org/journal/July_2016/Disclosure%20Schemes.htm

After demonetization, people were standing in long queues outside banks and ATMs while most of the banks were complaining about shortage of new currency. On the other hand, regular income tax seizures of cash and gold, sometimes in new currency, have been reported from different parts of the country. Post announcement of demonetization soon two individuals were being arrested in New Delhi with Rs 3.5 crore in the form of new currency notes. On 30th November again four persons in Karnataka and Goa were caught red handed with 6 crore of rupees out of which 4 crore were in form of new currency. On December 6, Rs 33 Lakh in form of Rs 2,000 notes was confiscated followed by 1.5 crore rupees confiscation on December 7 from Goa. On December 8, IT officials busted a major exchange racket operating from Chennai and seized Rs 90 crore in cash including Rs 70 crore in new currency. On 9th December again 1.57 crore new currency notes were seized from Surat and 24 crore from Vellore. Further 7.2 lakh and 5.7 crore uncounted money has been collected along with 32 kg in gold bullion. By the end of Dec 10, 2017 countrywide Rs 242 crore in new currency and jewellery worth Rs 15 crore has been seized.

As per records of Central Board of Direct Taxes (CBDT) on Dec 17, 2017 the government has uncovered concealed income to the tune of Rs 2,600 crore and has seized a total of currency notes over Rs 316 crore in raids, including Rs 80 crore in new notes besides, jewellery of 76 crore making it equaling to Rs. 393 crore.

This number increased to 3,185 crore of un-disclosed income with 86 crore of new currency notes till December 22, 2017. The process doesn't end here as during elections, crores of rupees has been forfeited from Punjab and related areas. In the same movement, The Income Tax department further claimed to have detected undisclosed income worth Rs. 120 crore and seized cash worth Rs. 1.10 crore and 10 kg of gold as on Feb 12, 2017. Again they seized cash and valuables totalling Rs. 600 crore in search and survey operations post demonetization of high value currency notes of Rs. 500 and Rs. 1000 as on march 28, 2017.

Scenario of Bank Deposit and Exchange due to demonetization:

A new phase of Indian monetary system emerged with the announcement of demonetization on November 8, 2017. Huge crowd rushed towards banks when they opened for Exchange and Deposits. During the period of November 10 to 18, on an average, Rs. 3,667 crore was exchanged over the counter every day. However, from November 19 to November 24, after which exchange was stopped, the total amount exchanged was just Rs. 942 crore, which means Rs. 157 crore per day, on an average.

Amount in Crore	Exchange	Deposits	Withdrawal
Nov 10 - Nov 18	33,006.00	511,565.00	1,03,316
Nov 19 - Nov 27	942.00	299,468.00	1,13,301

Total of Rs 8.44 lakh crore were being received by various banks in the form of cash deposit and exchange. Out of this, Rs 33,948 crore has been exchange while Rs 8,11,033 crore were deposited in old notes. In totality 15.4 lakh crore worth junked in totality by the end of demonetization window as on Dec 31, 2016.

Table 2: Status of Account Opening, Amount collected and Zero Balance Accounts Since June 2016

Months FY 2016-17	Bank Account Opening			Amount collected in accounts			Zero Balance Accounts		
	Total	MoM	YoY	Total	MoM	YoY	Total	MoM	YoY
June	222882387	1.6	35.67	3925157.26	3.2	106.42	56365831	0.2	-33.82
July	226504194	1.6	32.65	4075082.23	3.8	99.04	54758680	-2.9	-36.18
August	241008384	6.4	34.64	4209423.83	3.3	83.81	58684211	7.2	-26.99
September	247357897	2.6	33.40	4353266.58	3.4	74.56	59497551	1.4	-20.43
October	253164267	2.3	33.08	4486727.78	3.1	73.14	59336401	-0.3	-16.85
November	257847514	1.8	33.30	7432155.25	65.6	175.71	58914748	-0.7	-12.94
December	262019458	1.6	32.08	7103658.91	-4.4	143.06	63216560	7.3	0.16
January	273081870	4.2	33.42	6732497.79	-5.2	118.61	66824084	5.7	5.35

*source: www.pmjdy.gov.in

After demonetization, there was huge cash deposit reported by RBI in various banks especially in the month of November 2017. Deposit reflected a sharp growth by 5.35 percent in absolute terms in the month of November which further reduced by (0.01percent) in the month of December 2017. Even on a year-on- year basis, the growth in deposits in November is highest

and it grew by 15.93 percent. Even before demonetization, cash deposit in September was the highest in at least two years and it grew by 11.30 per cent since last year.

Considering account opening, cash deposited into accounts and zero balance account since June 2016 to Jan 2017, it can be stated that there is significant difference between Cash Deposit in accounts vis-a-vis Accounts opening and Zero balance account.

Table :3 ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Between Groups		1491474367720.177	2	745737183860.088	97.950	.000
Within Groups		159881690122.981	21	7613413815.380		
Total		1651356057843.158	23			
Multiple Comparisons						
(I) time	(J) time	Mean Difference (I-J)	Std. Error	Sig.	95 percent Confidence Interval	
					Lower Bound	Upper Bound
Accounting opening	Cash Deposit in Account	-528726.63875*	43627.43923	.000	-6.1945E5	-4.3800E5
	Zero Balance Account	188.28250	43627.43923	.997	-90539.9441	90916.5091
Cash Deposit in Account	Accounting opening	528726.63875*	43627.43923	.000	437998.4121	619454.8654
	Zero Balance Account	528914.92125*	43627.43923	.000	438186.6946	619643.1479
Zero Balance Account	Accounting opening	-188.28250	43627.43923	.997	-90916.5091	90539.9441
	Cash Deposit in Account	-528914.92125*	43627.43923	.000	-6.1964E5	-4.3819E5
*. The mean difference is significant at the 0.05 level.						

Using SPSS for Account opening, Cash collected in accounts and Zero balance account, p value is <0.05 which shows that there is significant difference between the three groups during the given period. Using Post Ad hoc test LSD, it can be stated that there is no such significance difference between Jan Dhan Account opening and Zero balance accounts during June 2016 to Jan 2017 as the p value is >0.05 but there is a significant difference between Cash Deposit in accounts vis-a-vis Accounts opening and Zero balance account.

Impact on Insurance Cash Inflow

According to the monthly business figures for life insurance companies released by the Insurance Regulatory and Development Authority of India (IRDAI), Individual single premiums collected in November for all the life insurers was Rs6,692 crore; 507percent more than the Rs1,103 crore collected in November 2015. Even on a month-on-month basis, the segment grew 170percent from Rs 2,481 crore in October. The total first-year premium (regular plus single premium) has grown 113percent year-on-year (y-o-y) and 45percent, compared to October 2016. Group single premium collected in November 2016 was 5021 crore, 68 percent more than premium collected last year in 2015. Group Non single premium had also increased by 45 percent over last year. Maximum inflows amounting Rs 9668 crore in Group single premium and Rs. 1013.2 crore in Non Single premium has been collected in the month of September 2016 which was 77.5 percent more than Rs 6016 crore collected in group insurances in September 2015.

In totality, the industry on an average was growing at 28percent month-on-month. But in the month of November, it grew over 40percent (Report of IRDAI).

There is no significant difference between funds inflow in insurance sector under single premium and regular premium plans (non single plan) in FY 2015-16 and FY 16-17 from June to January

		Sum of Squares	df	Mean Square	F	Sig.
Individual single	Between Groups	8274611.816	1	8274611.816	5.474	.035
	Within Groups	21163368.800	14	1511669.200		
	Total	29437980.620	15			
Individual_ Non single	Between Groups	1326948.485	1	1326948.485	3.985	.066
	Within Groups	4661726.669	14	332980.476		
	Total	5988675.154	15			
Group_ Single	Between Groups	9523797.184	1	9523797.184	3.375	.088
	Within Groups	39510592.810	14	2822185.200		
	Total	49034389.990	15			
Group_ Non single	Between Groups	8425.863	1	8425.863	.426	.525
	Within Groups	277081.483	14	19791.535		
	Total	285507.346	15			

As $p < 0.05$ for individual single premium plan, it indicates that there is a significant difference between premium inflow during last two years while for Individual Non single, Group single and

Group Non Single plan are having $p > 0.05$ indicating no significant difference between insurance inflow during last two years

Impact on Rupee vis a vis other currencies

After demonetization Indian rupee became stronger than currency of 143 countries out of 161 countries' currency. Further it turned weaker than 17 currencies and remained at par for one currency of a country. Rupee appreciated by 0.95% compared to US Dollar (\$) from INR 66.40 to 65.78 per unit US Dollar as shown in figure 2. Rupee also appreciated against some popular currencies like Euro, Australian Dollar, Swiss Franc, Singapore Dollar, Japanese Yen, British Pound, Canadian Dollar and Hong Kong Dollar and depreciated against Russian Ruble and South African Rand. Indian rupee (INR) became stronger than currencies of other south Although Indian rupee grew stronger to 107 currencies during BJP government but after Demonetization the number increased to 143.

Table-5 Trend of change in Indian Rupee vis a vis other currencies

Period	Stronger	Weaker	Same
After demonetization (08-11-16 to 14-03-17)	143	17	1
In Modi government (26-05-14 and 14-03-17)	107	53	1
In Modi govt before demonetization (26-05-14 and 08-11-16)	93	67	1

Data as on March 14, 2017 (collected from <http://statisticstimes.com/economy/indian-rupee-after-demonetization.php>)

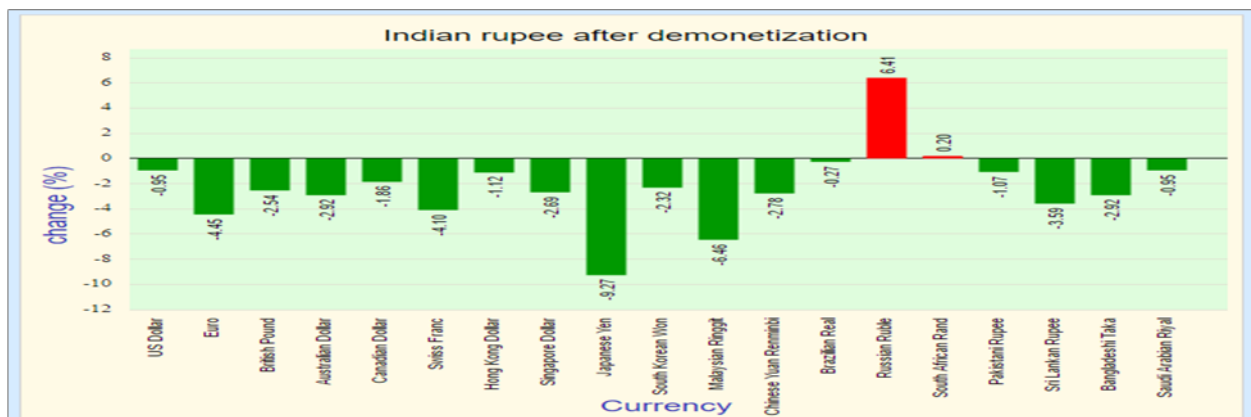


Figure-2 Percentage change in Indian rupee after demonetization

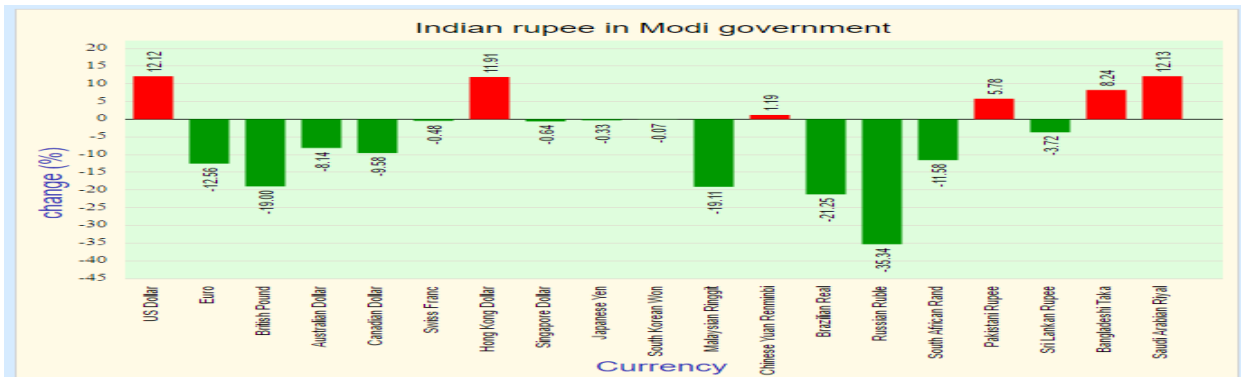


Figure-3 Percentage change in Indian rupee during Modi Government

Impact on Stock Market with special reference to Retail, Automobile, Bank, Food Processing (FP) and Infrastructure sector.

	N	Minimum	Maximum	Mean	Std. Deviation
CAAR_retail	49	-8.04	6.14	-1.9528	3.99800
CAAR_Automobile	49	.56	12.78	9.6030	2.79208
CAAR_Bank	49	-7.17	35.07	9.2212	11.00283
CAAR_FP	49	-31.02	6.76	-10.8296	8.44380
CAAR_Infra	49	-4.53	12.62	3.2110	4.49559
Valid N (listwise)	49				

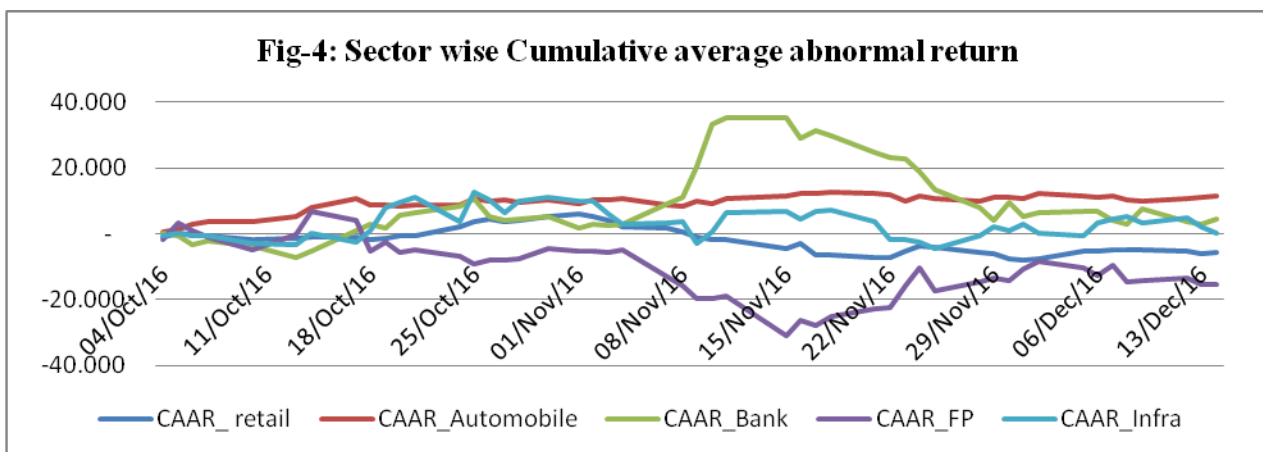


Table-5 depicted that out of five sectors Automobile sector had been the most consistent during demonetization window as its standard deviation is least among all i.e. at 2.79. While banking sector followed by food processing sector had been the most volatile. Maximum variations can

be noticed during November 9, 2016 to November 29, 2016. CAAR of Banking sector was maximum on November 15, 2017 at 35.071 while that of Food processing sector was least at - 31.0185.

Findings and Conclusion

Demonetization has both way impact on economy. On the one side currency notes of 500/1000 amounting Rs.15.4 lakh crore (Approx) that were in circulation, before November 8, 2016, were pulled back by government into bank accounts for deposit and exchange. On the other side as per IDS 2016, Rs 65,250 crore of undisclosed assets were declared in the one-time compliance window, yielding Rs 29,362 crore in taxes to the government in FY 2016-17. In individual single premium insurance, premium grew by 170 percent in November but in mutual fund, a minor growth of 13.5 percent has been noticed after declaration of demonetization. Approximately Rs. 2616931.13 lacks additional deposits have been mobilized in the months of November and December 2016 in Jan Dhan Accounts. Also cash deposits in November, as per RBI data have increased by 5.35 percent in one month and 15.9 percent in one year after announcement of demonetization. Banking sector and automobile sector opened the door for increased returns and there were negative returns in food processing sector causing Sensex to fall at 26602.8 on December 14, 2016 from 28243.3 on October 3, 2016.

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