

IMPACT OF CRR ON RETURN OF COMMERCIAL BANKS IN INDIA

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Abstract : This paper Examine the impact of Cash Reserve Ratio (CRR) on the return of Commercial banks in India .CRR is the one of main component of Monetary policy of RBI .After every two months RBI releases Monetary policy by revising some components or sometimes giving the date of economy ,depending on other factors like fiscal depicts, balance of payment ,foreign Exchange Reserve ,inflation etc .in this paper we have taken date from financial year 2005-06 to 2017-18 i.e. 13 years , as it this period covers almost full cycle of market i.e. recession to boom to stagflation . a cut down in the percentage of CRR will lead to a fall in interest rate. In addition, a fall in interest rate will lead is downfall of investor saving in banks. In result investor will move towards stock market.

Index Terms -: CRR, Commercial bank, Stock market, Monetary Policy

I. INTRODUCTION

In every economy banking sector plays major role in development of that economy. Banking is backbone of any economy. There are number of factors which impacts this sector one of them is CRR. CRR is the cash reserve ratio, which means a prescribed percentage of funds commercial and scheduled banks excluding regional and rural banks must keep with RBI. The main basis points Increase in CRR percentage leads to more fund s banks has to keep with RBI which result drop in liquidity in market and will lead to high inflation rate consequently if CRR is decrease the liquidity with banks and market will be high and which leads to more lending facility from bank .Now the discussions arises when RBI releases monetary policy and CRR announced what happens to returns of commercial banks .in this paper we are checking the correlation of CRR and return of commercial bank .Increase in CRR leads to increases in interest rates have several implication .Hindering the general development in the economy , this viably implies interest for merchandise and Ventures and speculation movement , Aside from the way that general Development is affected , Organizations endure a short because of higher integrates cots as they need to hold up on their remarkable credits (to the degree their expense of assets is not secure) . Since certain financial specialist will in general influence and put resources into the securities exchanges, higher loan cost, increment desire for comes back from the securities exchanges, this has the effect of bringing down current stock prices. a general decrease in stock price has a falling impact as utilized position are loosened up) because of gathering edge perquisites) promoting still lower stock cost.

In Indian equity market there are three dimension of large scale risk, a high P/E, r relatively over valued rupees and interest rates that have remained moderately low thinking about dimension of monetary development and we associate these things with development .The P/E products are high since development is strong, the rupee has been firm insight of the fact that strong development has pulled in capital and that capital has helped keep loan fees low. With CRR increase RBI is going to end development party and on off the chance that development starts to back off, at the point you are probably going to see lower P/E, a low rupee and a possibly high Interest Rate.

1.1 Literature review

The concept of CRR was introduced in the year 1950 to safeguard the liquidity of bank deposits but consequently this has become important factor to examine the lending capacity of bank to control the money supply. Research done by (Rawat, Jul-Aug. 2014) examines the impact of CRR SLR and investment on loans and advances of SBI. By using the multiple regression analysis techniques author suggested CRR and SLR both have significant impact on loans and advances and that is negative impact which means if CRR and SLR rate are increasing than loans and advances will decrease.

Another research done by (Nhan Nguyen Thanh, July 2017) investigate the impact of monetary policy on commercial banks in Vietnam, by applying the methods of regression .Different parameter of monetary policy such as monetary base, discount rate and require reserve ratio were used as a substitute by author in his research and the effect was investigated by using profit before tax in 20 commercial banks in Vietnam. In his research (Nhan Nguyen Thanh, July 2017) he investigated that the impact was positive .in addition; among all other variable monetary base has positive impact.

Author research done by (Meshack, 2016) to create the effect of monetary policy on the financial performance of commercial banks in Kenya Nairobi security exchange .one more researcher is citing that CRR is negatively or inversely related with the financial performance of bank. A report published by federal bank of Philadelphia in business review measured the impact of monetary policy on commercial bank by (David P. Eastburn, July/August 1978) stated that introduction of monetary policy in banking system has upgrades the level of economy as well as posed some challenges to the banking sector .with introduction of monetary banking is regulated, organised and systematic than earlier, explores how fiscal arrangement influence bank gainfulness. By using Data of 109banks from different nation in 14 major advanced economies for period 1995 to 2012. Directly proportional relationship had been found between the level of short-term rates and the slope of the yield curve.

(Claudio Borio, October 2015)recommends the positive effect of the financial cost structure on net interest income dominate the negative one on loan loss provision and on net interest income. In addition, it is found that the impact of more when interest rate level is lower and incline less deep i.e. that non linearities are available this propose that uncommonly low cost and a curiously level term structured this integrate bank profitability.

Even (Gray, Mar., 1963) also suggested in his research saying that rigidly for imposing monetary policy in banking is bringing changes. Few are positive and rest are posing challenges but, make sure that none are negative. If government of any country is posing some rules and regulation to banking sector i.e. to make it even more organised and regulate.

(Anil K.Kashyap, June 1995) as has shown in their research paper utilized disaggregated information on bank accounting reports to give a trial of the lending prospective on financial arrangement transmission. It is contended that of the lending view is correct one ought to expect the credit and security arrangement of enormous and small banking to react differentially to withdrawal financial strategy. Initially this point is bullied up with the hypothetical model and then at that point tests to check whether the models forecast are borne out in the information. By enlarge the observational outcomes are strong of the lending views.

(Dare, Jul. -Aug .2017) conclude a study in Nigeria specifically in United Bank of Africa (UBA). As a case study to find relation between monetary policy and commercial bank credit performance (Dare, Jul. -Aug .2017) have estimated model expresses bank's operating performance as a function of monetary policy represented by monetary policy rates (MPR), cash reserve ratio (CRR), and liquidity ratio (LR) while return on asset (ROA) is used as a substitute for banks credit performance. After empirical study it was investigated that there is positive but statistically insignificant relation between MPR and ROA. But negative relation between CRR, LR, and ROA.

As research concluded by (Rao, March 2006) in the year 2006 saying that if overall monetary and macroeconomic conditions are going good then CRR rates should be fluctuating if it will not fluctuate then money supply will be same and we may not get exact position and health of the economy. Apart from CRR there are other factors which affect the profitability of the bank which includes different ratio of balance sheet and profit loss statement. As stated by (Stephen Oluwafemi Adeusi, Dec 2014) asset quality is very important among all the factors.

As stated by (Sayera Younus, 1991) before regulation of monetary policy and its instruments like CRR and SLR the banking system was facing a lot of challenges in Bangladesh. NPA of the commercial bank was increasing and bank are going into losses in 1990s but there were few researchers which still say that CRR, Liquidity ratio and Interest rates did not have any impact on the profitability of banks. As stated by (UDEH, 2015) Zenith Bank P/C in Nigeria did not have any significant impact on the profitability from the monetary policy 60% of the monetary instrument did not show any impact on the banking returns.

1.2 Objectives of the study

1. To know the impact of CRR on BANK Nifty & NIFTY PRICES.
2. To know the correlation of CRR on BANK NIFTY & NIFTY PRICES.

1.3 Hypothesis

H₀: There is no correlation between CRR and share stock prices.

H_a: There is correlation between CRR and stock price of commercial banks.

1.4 Research Methodology

The study is conducted with reference to the data related to HDFC Bank, AXIS Bank, ICICI Bank, KOTAK MAHINDRA Bank and SBI. These banks have been studied with respect to highest market capitalization in NIFTY 50 stocks. This study covers a period of twelve years from 2005-2006 to 2017-2018.

Dependent Variable

NSE-NIFTY 50 The National Stock Exchange of India was the first demutualized electronic trade in the nation and it was likewise the primary trade in the nation to give a cutting edge and completely computerized screen-based electronic exchanging framework which offered simple exchanging office to the speculators spread over the length and expansiveness of the nation. The index NIFTY 50 is NSE's benchmark wide based financial exchange list for the Indian securities exchange which speaks to the weighted normal of 50 Indian organization stocks. The list was propelled by the NSE in 1996. In this examination, a normal of open and close cost has been taken as the intermediary of NIFTY 50.

Independent Variables

Cash Reserve Ratio Cash Reserve Ratio is a certain percentage of bank deposits which banks are required to keep with RBI in the form of reserves. Higher the CRR with the RBI lower will be liquidity in the system and lower the CRR with the RBI higher will be liquidity. The RBI uses the CRR to drain out excessive money from the system.

Secondary data.

Table 1: CRR in % and closing prices of HDFC Bank, AXIS Bank, ICICI Bank, KOTAK MAHINDRA Bank, SBI In ₹

Note: CRR in %, HDFC Bank, AXIS Bank, ICICI Bank, KOTAK MAHINDRA Bank, SBI In ₹							
year	quarter	CRR	HDFC Bank	Axis Bank	ICICI Bank	KOTAK MAHINDRA Bank	SBI
2018	Q1	4	2108.45	525.65	275.4	1342.95	1,257.00
	Q2	4	2006.05	613.25	305.55	1142.6	264.35
	Q3	4	2122.9	620.85	360.75	1242.35	294.8
	Q4	4	2318.9	730.1	400.5	1334.5	303.5
2017	Q1	4	1652.05	504.65	291.85	955.75	272.45
	Q2	4	1805.7	516.15	270.6	1002.25	252.55
	Q3	4	1872.4	563.95	314	1010.2	308.4
	Q4	4	1886.1	510.5	278.35	1047.8	249.9
2016	Q1	4	1161.9	510.5	209.95	733.9	217.2
	Q2	4	1272.85	541.35	229.23	777	249
	Q3	4	1206.2	438.1	232.09	719.12	250.2
	Q4	4	1442.55	490.8	249.77	872.2	293.4
2015	Q1	4	1062.85	585.5	283.36	690.15	259.65
	Q2	4	1051.4	517.45	243.91	654.45	241.9

	Q3	4	1073	440.65	234.5	701.35	228.2
	Q4	4	1049.35	412.8	212.91	659.95	197.55
2014	Q1	4	816.2	381.84	251.75	465.5	263.9
	Q2	4	871.65	407.65	268.72	512.17	244.57
	Q3	4	948.65	494.94	319.05	618.15	307.65
	Q4	4	1014.65	546.4	285.95	649.58	267.9
2013	Q1	4	665.05	265.04	194.68	378.35	194.85
	Q2	4	608.05	220.47	179.5	341.42	167.61
	Q3	4	660.5	247.96	197.76	370.03	175.85
	Q4	4	744.95	281.36	220.91	389	176.75
2012	Q1	4.5	547.55	203.15	154.85	290.55	211.34
	Q2	4.5	625.15	227.2	193.73	233.23	224.06
	Q3	4.25	688.75	264.25	207.55	332.28	237.09
	Q4	5.25	657.8	260.14	180.67	337.36	207.28
2011	Q1	6	469.86	254.25	188.35	219.95	240.47
	Q2	6	467.65	203.78	155.41	229.85	195.14
	Q3	6	426.85	175.99	124.48	215.28	164.75
	Q4	6	507.85	229.24	165.55	269.58	211.75
2010	Q1	5.87	389.53	249.82	155.74	187.68	230.2
	Q2	6	480.12	301.37	202.58	236.63	324.05
	Q3	6	443.68	264.71	203.3	225.45	274.63
	Q4	5.6	453.01	253.14	188.28	226.68	274.93
2009	Q1	5	311.77	163.67	137.48	157.39	174.53
	Q2	5	321.71	182.77	157.18	183.21	217.08
	Q3	5	342.13	197.84	159.48	201.39	222.43
	Q4	5.16	363.97	243.13	172.27	187.73	207.29
2008	Q1	8.06	219.65	140.74	118.57	148.75	120.43
	Q2	8.83	248.94	140.02	101.89	144.55	151.81
	Q3	5.77	178.06	109.2	74.73	189.9	126.42
	Q4	7.5	200.29	65.98	56.12	75.43	102.36
2007	Q1	6.37	229.35	119.95	165.22	168.26	137.3
	Q2	7	287.12	152.92	193.96	230.55	170.52
	Q3	7.5	346.06	195.14	223.04	322.83	212.97
	Q4	7.58	254.52	161.44	139.67	136.57	171.37
2006	Q1	5	149.88	53.59	92.37	60.33	68.75
	Q2	5	185.07	75.7	127.3	83.35	91.59
	Q3	5.12	213.59	92.26	162.09	99.95	114.64
	Q4	5	190.83	89.74	162.11	119.85	96.82
2005	Q1	5	115.26	48.1	76.06	39.24	63.49
	Q2	5	133.99	53.16	109.4	47.36	88.39
	Q3	5	144.06	57.39	106.37	59.48	84.74
	Q4	5	154.85	71.21	107.1	69.87	91.56

The primary source of secondary data related to cash reserve ratios has been collected from data base of RBI from the duration of 2005 - 06 to 2017-2018. The share price of each selected commercial bank is retrieved from the official website of NATIONAL STOCK EXCHANGE from the duration of 2005-06 to 2017-18 in the quarterly basis.

Descriptive Statistics

The mean of 55 observations of the independent variable i.e. CRR is 5.033 % and the mean of 55 observations of dependent variables i.e. HDFC, AXIS BANK, ICICI BANK, KOTAK MAHENDRA BANK, SBI are ₹728.415, ₹293.513, ₹196.3371, ₹418.150, 203.4965 respectively. The dispersion of the data i.e. standard deviation of independent and dependent variables is 1.223 %, ₹ 583.0851, ₹ 182.313, ₹ 73.800, ₹ 343.722, ₹ 68.9254 respectively. Skewness of the independent variable is 1.25 % positively. Among the dependent variables, SBI have negative skewness of -0.39274, remaining variables has positive skewness of 1.160, 0.526, 0.456, 1.048 respectively.

Table 2: Descriptive Statistics of secondary data

Descriptive statistics	CRR	HDFC	AXIS	ICICI	KOTAK	SBI
Mean	5.033818	728.4145	293.5136	196.3371	418.1505	203.4965
Standard Error	0.16502	78.62318	24.58315	9.951234	46.34748	9.293909
Median	5	507.85	249.82	193.73	269.58	212.97
Mode	4	#N/A	510.5	#N/A	#N/A	#N/A
Standard Deviation	1.22382	583.0851	182.3135	73.80033	343.7221	68.92547
Sample Variance	1.497735	339988.3	33238.22	5446.488	118144.9	4750.721
Kurtosis	1.056968	0.473724	-0.85806	0.096908	0.094941	-0.73683
Skewness	1.250806	1.160993	0.526532	0.456141	1.048744	-0.39274
Range	4.83	2203.64	682	344.38	1295.26	260.56
Minimum	4	115.26	48.1	56.12	39.24	63.49
Maximum	8.83	2318.9	730.1	400.5	1334.5	324.05
Sum	276.86	40062.8	16143.25	10798.54	22998.28	11192.31
Count	55	55	55	55	55	55

Correlation Analysis

Table 3: Correlation analysis of secondary data

	CRR	HDFC	AXIS	ICICI	KOTAK	SBI
CRR	1					
HDFC	-0.60837	1				
AXIS	-0.60568	0.932769	1			
ICICI	-0.58791	0.882674	0.92206	1		
KOTAK	-0.59606	0.991006	0.94764	0.891889	1	
SBI	-0.38957	0.707912	0.823973	0.824605	0.704049	1

Table 3. results in the correlation of independent variable and dependent variables, the nature of the correlation is inverse relationship, where in the increase of cash reserve ratio will affect the overall performance of the commercial banks as the cash reserved in the RBI every year is a dead investment to the banks so they may have to recover the losses by increasing the interest rates. But initially when there is a change in the CRR immediately there will be a opposite impact of the stock market performance as we know it is directly related to the actual market performance. So the correlation of independent and dependent variables can be explained as for 1 degree variation in CRR can change - 0.608, -0.605, -0.58791, -0.59606, - 0.38957 degrees of variation in dependent variables respectively. Another important observation to be noted is correlation values of all five dependent variables are almost similar, which means there will be same impact on all commercial banks assuming conditions to be the same.

Table 4: Correlation Slabs details

Correlation slabs	Effects	Skewness, kurtosis and Regression on basis of correlation value
0.1 to 0.3	Slightly Correlated	
0.3 to 0.7	Moderately Correlated	Skewness
0.7 to 1	Strongly Correlated	Regression

Correlation Analysis

Table 4: Correlation analysis of secondary data

	<i>CRR</i>	<i>HDFC</i>	<i>AXIS</i>	<i>ICICI</i>	<i>KOTAK</i>	<i>SBI</i>
<i>CRR</i>	1					
<i>HDFC</i>	-0.60837	1				
<i>AXIS</i>	-0.60568	0.932769	1			
<i>ICICI</i>	-0.58791	0.882674	0.92206	1		
<i>KOTAK</i>	-0.59606	0.991006	0.94764	0.891889	1	
<i>SBI</i>	-0.38957	0.707912	0.823973	0.824605	0.704049	1

Table 4. results in the correlation of independent variable and dependent variables, the nature of the correlation is inverse relationship, where in the increase of cash reserve ratio will affect the overall performance of the commercial banks as the cash reserved in the RBI every year is a dead investment to the banks so they may have to recover the losses by increasing the interest rates. But initially when there is a change in the CRR immediately there will be a opposite impact of the stock market performance as we know it is directly related to the actual market performance. So the correlation of independent and dependent variables can be explained as for 1 degree variation in CRR can change – 0.608, -0.605, -0.58791, -0.59606, - 0.38957 degrees of variation in dependent variables respectively. Another important observation to be noted is correlation values of all five dependent variables are almost similar, which means there will be same impact on all commercial banks assuming conditions to be the same.

Regression analysis of HDFC Bank

Table 5. results in the regression analysis of share price of HDFC bank

Multiple R	0.610259
R Square	0.372416
Adjusted R Square	0.360794
Standard Error	484.8813
Observations	56

Graph 1: Regression line of HDFC BANK

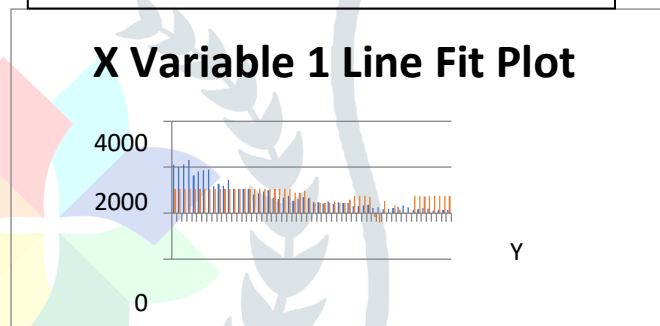


Table 5. results in the regression analysis of share price of HDFC bank and cash reserve ratio, and the quarterly data is considered for the analysis, multiple R i.e. 0.6102 is the correlation between the two variables, R square value i.e. 0.3725 represents the actual dependency of the dependent variable on the independent variable, adjusted R square i.e. 0.36079 is accurate value of the dependence where the noise and errors are considered. According to Table 6. Null hypothesis is rejected, and alternative hypothesis is accepted. And can conclude that there is a correlation which is influencing value of share price of HDFC bank for a short period of time.

Table 6.results the ANOVA test, where F value represents the significance of the regression

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	7533923	7533923	32.04426	5.93E-07
Residual	54	12695933	235109.9		
Total	55	20229856			

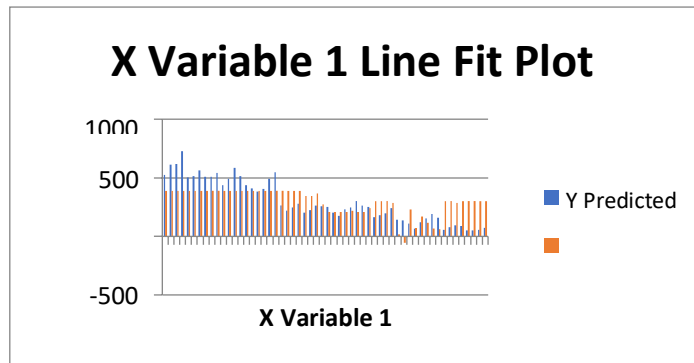
Table 7: Hypothesis Testing of HDFC Bank

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	2273.948	276.375	8.227764	4.24E-11	1719.85	2828.047	1719.85	2828.047
X Variable 1	-303.247	53.5699	-5.66077	5.93E-07	410.648	-195.845	410.648	-195.845

From table 7 we can confirm the rejection of null hypothesis due to the deflection in the P values, therefore the correlation and influence is confirmed, and alternative hypothesis is accepted.

Regression Analysis of AXIS Bank

Multiple R	0.612262
R Square	0.374865
Adjusted R Square	0.363288
Standard Error	146.2569
Observations	56



Graph 2: Regression line of AXIS Bank

Table 8. results in the regression analysis of share price of Axis bank and cash reserve ratio, and the quarterly data is considered for the analysis, multiple R i.e. 0.6122 is the correlation between the two variables, R square value i.e. 0.374 represents the actual dependency of the dependent variable on the independent variable, adjusted R square i.e. 0.363 is accurate value of the dependence where the noise and errors are considered. According to Table 9. Null hypothesis is rejected, and alternative hypothesis is accepted. And can conclude that there is a correlation which is influencing value of share price of axis bank for a short period of time.

Table 9.results the ANOVA test, where F value represents the significance of the regression

	df	SS	MS	F	Significance F
Regression	1	692670.6	692670.6	32.38128	5.32E-07
Residual	54	1155118	21391.08		
Total	55	1847789			

Table 10: Hypothesis testing of AXIS Bank

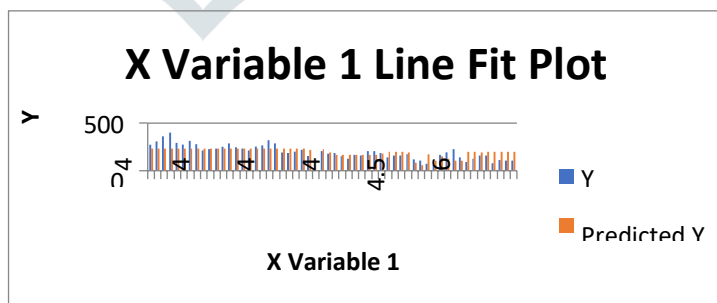
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	758.8179	83.36422	9.102442	1.71E-12	591.6827	925.9531	591.6827	925.9531
X Variable 1	-91.9494	16.15853	-5.69046	5.32E-07	-124.345	-59.5535	-124.345	-59.5535

From table 10 we can confirm the rejection of null hypothesis due to the deflection in the P values, therefore the correlation and influence is confirmed, and alternative hypothesis is accepted.

Graph 3: Regression line of AXIS Bank

Regression analysis of ICICI Bank

Multiple R	0.594313
R Square	0.353208
Adjusted R Square	0.341231
Standard Error	59.96898
Observations	56



Interpretation

Table11. results in the regression analysis of share price of ICICI and cash reserve ratio, and the quarterly data is considered for the analysis, multiple R i.e. 0.5942 is the correlation between the two variables, R square value i.e. 0.353 represents the actual dependency of the dependent variable on the independent variable, adjusted R square i.e. 0.343 is accurate value of the dependence where the noise and errors are considered. According to Table 12. Null hypothesis is rejected, and alternative hypothesis is accepted. And can conclude that there is a correlation which is influencing value of share price of axis bank for a short period of time.

Table 12.results the anova test, where F value represents the significance of the regression.

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	106050.7	106050.7	29.489	1.37E-06
Residual	54	194199	3596.278		
Total	55	300249.7			

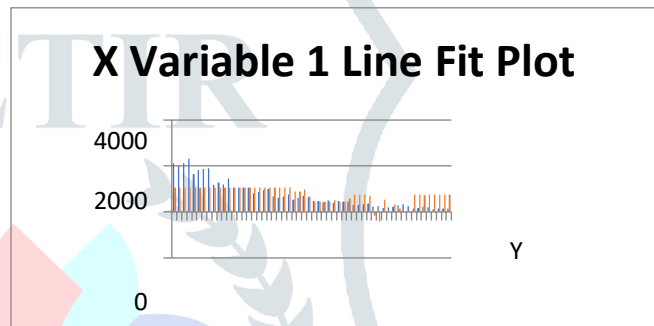
Table 13: Hypothesis testing of ICICI Bank

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	378.1936	34.18141	11.06431	1.69E-15	309.664	446.7232	309.664	446.7232
X Variable 1	-35.9784	6.6254	-5.43038	1.37E-06	49.2615	-22.6953	49.2615	-22.6953

From table 13 we can confirm the rejection of null hypothesis due to the deflection in the P values, therefore the correlation and influence is confirmed, and alternative hypothesis is accepted.

Regression analysis of KOTAK MAHINDRA Bank

<i>Table 14: Regression Statistics of ICICI Bank</i>	
Multiple R	0.594313
R Square	0.353208
Adjusted R Square	0.341231
Standard Error	59.96898
Observations	56



Interpretation

Table14. results in the regression analysis of share price of ICICI and cash reserve ratio, and the quarterly data is considered for the analysis, multiple R i.e. 0.5942 is the correlation between the two variables, R square value i.e. 0.353 represents the actual dependency of the dependent variable on the independent variable, adjusted R square i.e. 0.343 is accurate value of the dependence where the noise and errors are considered. According to Table 15. Null hypothesis is rejected, and alternative hypothesis is accepted. And can conclude that there is a correlation which is influencing value of share price of axis bank for a short period oftime.

Table 15.results the anova test, where F value represents the significance of the regression.

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	106050.7	106050.7	29.489	1.37E-06
Residual	54	194199	3596.278		
Total	55	300249.7			

Table 16: Hypothesis testing of KOTAK MAHINDRA Bank

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	378.1936	34.18141	11.06431	1.69E-15	309.664	446.7232	309.664	446.7232
X Variable 1	-35.9784	6.6254	-5.43038	1.37E-06	49.2615	-22.6953	49.2615	-22.6953

From table 16 we can confirm the rejection of null hypothesis due to the deflection in the P values, therefore the correlation and influence is confirmed, and alternative hypothesis is accepted.

Regression analysis of SBI Bank

Multiple R	0.594313
R Square	0.353208
Adjusted R Square	0.341231
Standard Error	59.96898
Observations	56

Graph 5: Regression line of SBI BANK

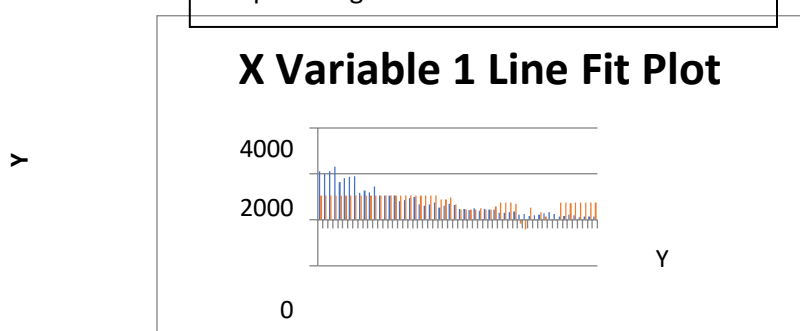


Table 17. results in the regression analysis of share price of ICICI and cash reserve ratio, and the quarterly data is considered for the analysis, multiple R i.e. 0.5942 is the correlation between the two variables, R square value i.e. 0.353 represents the actual dependency of the dependent variable on the independent variable, adjusted R square i.e. 0.343 is accurate value of the dependence where the noise and errors are considered. According to Table 18. Null hypothesis is rejected, and alternative hypothesis is accepted. And can conclude that there is a correlation which is influencing value of share price of axis bank for a short period of time.

Table 18. results the anova test, where F value represents the significance of the regression.

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	106050.7	106050.7	29.489	1.37E-06
Residual	54	194199	3596.278		
Total	55	300249.7			

Table 19: Hypothesis testing of SBI Bank

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	378.1936	34.18141	11.06431	1.69E-15	309.664	446.7232	309.664	446.7232
X Variable 1	-35.9784	6.6254	-5.43038	1.37E-06	49.2615	-22.6953	49.2615	-22.6953

From table 19 we can confirm the rejection of null hypothesis due to the deflection in the P values, therefore the correlation and influence is confirmed, and alternative hypothesis is accepted.

II. CONCLUSION

Hikes in CRR leading to raise interest rates have several implications including. Slowing down the overall growth in the economy; this effectively means that demand for goods and services, and investment activity, gets adversely impacted. Apart from the fact that overall growth is impacted, companies take a hit on account of higher interest costs that they have to bear on their outstanding loans (to the extent their cost of funds is not locked in). Since some investors tend to leverage and invest in the stock markets, higher interest rates increase expectation of returns from the stock markets; this has the impact of lowering current stock prices. An overall decline in stock prices has a cascading effect as leveraged positions are unwound (on account of meeting margin requirements), leading to still lower stock prices.

In Indian equity markets there are three levels of macro risk; a high P/E, a relatively overvalued rupee and interest rates that have stayed relatively low considering the level of economic growth, and we associate these things with growth. The P/E multiples are high because growth is strong, the rupee has been firm because strong growth has attracted capital and that capital has helped keep interest rates low. With CRR hike RBI is about to end the growth party and if growth begins to slow down then you are likely to see a lower P/E, a low rupee and a potentially higher interest rates.

A cut in CRR would lead to a fall in interest rate. A cut in interest rates would make savings in banks unattractive. Thus, depositors may move to the stock market at a time when the revival of the bourses is crucial for regenerating Indian industry. Thus a reduction in CRR would boost the securities prices and players are also expecting the Government to align the savings rate to the same structural levels.

III. LIMITATIONS OF THE STUDY

1. The study is primary based on secondary data. Different tools used for the study may suggest different results as the approach differs. Some changes in accounts procedure by concern may often make financial analysis misleading.
2. It does not consider changes in price level.
3. The study considers data of only limited duration of time.
4. It is based on only on monetary information and non-monetary factors are ignored.
5. It is only study of interim reports of the concern.
6. The study is based on selected schemes therefore limiting the area of research.

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