

# RELATIONSHIP BETWEEN INTEREST RATE AND EXCHANGE RATE AND THEIR IMPACT ON BANK STOCK RETURN: EVIDENCE FROM INDIAN BANKS

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## ABSTRACT

*This study examine the Relationship between exchange rate and interest rate and their impact on bank stock return for which time period of January 2005 to December 2015 has been taken. Exchange rate and interest rate is used as the variable of the study with the objective of checking the Relationship between exchange rate and interest rate and their impact on bank stock return. ADF test committed that the observed variable are integrated of order zero except exchange rate and interest rate and least square test confirmed that the exchange rate has an impact on bank stock return whereas the interest rate has null impact on bank stock return.*

## INTRODUCTION

### 1.1 Conceptual Framework

#### **Bank**

A bank will be a budgetary organization authorized on accept stores and settle on advances. Banks might additionally give fiscal services, for example, riches management, money return also safe store boxes. There would two sorts for banks: commercial/retail banks Also speculation banks. Clinched alongside practically countries, banks are controlled Eventually Tom's perusing the national administration alternately national bank.

Business banks would normally worried with overseeing withdrawals Furthermore accepting stores and additionally supplying fleeting credits on people and little organizations. Customers fundamentally use these banks to fundamental checking Also investment funds accounts, certificates for store (CDs) Also home Contracts. Cases for business banks incorporate JPMorgan pursue & particular organization What's more bank from claiming America enterprise.

A speculation bank is regularly An privately owned business that gives Different financial-related and other administrations should individuals, corporations, Also administrations for example, raising budgetary money Eventually Tom's perusing underwriting or acting Similarly as the client's agenize in the issuance about securities. A speculation bank might additionally help organizations included On mergers and acquisitions (M&A) and provide people of old administrations for example, showcase making, exchanging of subsidiaries Also value securities, What's more FICC benefits (fixed wage instruments, currencies, What's more commodities).

### **Bank stock return**

Stock return is the appreciation in the price plus any dividends paid, divided by the original price of the stock. The income sources from a stock is dividends and its increase in value. The first portion of the numerator of the total stock return formula looks at how much the value has increased ( $P_1 - P_0$ ). The denominator of the formula to calculate a stock's total return is the original price of the stock which is used due to being the original amount invest

### **Exchange rate**

Those cost of a nation's cash As far as another coin. A trade rate In this way need two components, those household money What's more a outside currency, What's more might make cited whichever specifically alternately by implication. On An immediate quotation, those value of a unit from claiming outside money may be communicated As far as those down home money. For a backhanded quotation, the value of a unit of down home coin is communicated As far as the outside coin. A trade rate that doesn't have those household money Likewise a standout amongst those two money parts may be known as An cross currency, alternately cross rate.

### **Interest rate**

Investment rate will be the measure about premium expected for every period, Likewise An extent of the add up lent, stored or acquired (called the central sum). Those downright investment on a add up Loaned or obtained relies on the vital sum, those premium rate, those aggravating frequency, and the period about the long run through which it will be lent, saved alternately obtained.

It may be characterized as the extent from claiming a measure loaned which a bank charges as interest of the borrower, regularly communicated similarly as a twelve-month rate. [1] It will be the rate an bank or different moneylender charges should acquire its money, alternately those rate a bank visits its savers to keeping cash clinched alongside a record.

Investment rate may be the measure charged communicated Likewise a rate of principal, toward a bank with a borrower to the utilization about holdings. Interest rates need aid regularly noted once a yearly basis, known as the twelve-month rate (APR). Those benefits acquired Might include, cash, customer goods, huge assets, for example, such that a vehicle or building. Interest may be basically a rental, or leasing charge of the borrower, to those asset's utilization. On account of a substantial asset, like a vehicle or building, the investment rate will be now and then known as the "lease rate". When the borrower is An low-risk party, they will generally a chance to be charged An low premium rate; whether

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the borrower will be viewed as secondary risk, those investment rate that they would charged will be higher.

## **REVIEW OF LITERATURE**

Tripathi .v et al. (2012) looks at the impacts of financing cost changes on saving money stock returns in India. This study has been utilized OLS and GARCH estimation models for examination the information. The study found that a negative yet frail relationship between Bank stock returns and financing cost changes in India. Not surprisingly, saving money stock returns display huge positive relationship with market returns. However loan fee unpredictability is found to influence fundamentally the stock instability if there should arise an occurrence of a large portion of the banks in India.

Mouma. A et al investigated the impact of the market file, loan fee and remote conversion scale hazard on Tunisian banks stock returns this study has been utilized OLS and GARCH estimation models for examination the information. The study found that conversion scale and market record have an effect and a critical part in deciding the progression on the contingent bank stock return.

Merikas.A ,(1999), directed a study examine the auxiliary relationship between the conversion scale presentation and the stock estimation of the principle Greek managing an account organizations. This study has been utilized OLS show for examination the information. The study found that the empherical result demonstrates that the stock return of Greek banks are affected uniquely in contrast to the variety of three noteworthy monetary forms USD,DEM and YEN against the GRD.

Butt.B.Z ,(2009), inspects the stock returns variety to particular monetary factors. This study has been utilized multi-figure model and GARCH display for examination the information. The study discovered that economic introduction is higher at industry level than firm level stock returns. Results likewise show that stock returns of various firms carry on diversely in comparative economic conditions that familiarize speculators about the hazard broadening opportunity in the stock exchange.

Park.j et al, (2011), directed a study is to research loan cost affectability of the US property/risk (P/L) back up plans stock returns. This study has been utilized two-list demonstrates for examination the information. The study found that the US P/L safety net providers' stock returns are affectability to loan cost changes. The effect of genuine financing cost changes on the stock returns is minimal not the same as that of unexpected financing cost changes,

Elyasiani.E et al, (2008), examine a study looks at two connections First, the relationship between value returns of business banks, reserve funds and credits (S&Ls) and life coverage organizations (LICs), and those of the land speculation trusts (REITs), an intermediary for the land part execution Second, the relationship between contingent volatilities of the stock returns of these budgetary middle people (FIs) and that of REITs. The study has been utilized GARCH show for examination of information. In the first

place, FI returns take after a GARCH procedure and ought to be demonstrated inside this general system. Second, the discoveries here strengthen the conclusion came to in the before studies that the REITs returns ought to be demonstrated utilizing the Fama-French variable model.

Kuwornu J.k.m , (2012), conducted a study the impact of macroeconomics factors on the Ghanaian securities exchange returns utilizing month to month information The study has been utilized ADF test .This paper examines the impacts of macroeconomic factors on the share trading system returns in Ghana utilizing Johansen Multivariate Co integration Analysis and month to month information .

Li Yun, (2004), examines a study experimental research has been committed to breaking down the effect of changes in money related approach on stock costs. The study has been utilized VAR display. To inspect the affectability of results to option distinguishing proof methodologies and the nearness of these riddles, both recursive suspicions and non-recursive presumptions are used in this exploration.

An Jiyoun,(2014), examine a study swapping scale chance, firm size, the book-to-market proportion, and the net wage proportion are imperative in clarifying future bank stock returns amid ordinary times. The contemplate has been utilized cross sectional variety and regression. This paper researches that conversion standard hazard, firm size, and BM proportion is critical in clarifying expected stock returns. In addition, the net salary proportion clarifies the cross-sectional stock returns of business banks.

Ali Hamden, (2014), conducted a study experimental research has been committed to breaking down the effect of changes in money related approach on stock costs. The study has been utilized VAR display. To inspect the affectability of results to option distinguishing proof methodologies and the nearness of these riddles, both recursive suspicions and non-recursive presumptions are used in this exploration.

Ito.T,(2013), investigation that inspects two vital issues, in particular those association of the reit business sector for stock costs Also enthusiasm rates. Those fundamental destination of the investigation might have been sway from claiming stock costs and interest rates on the reit showcase on Japan. The examine need been utilized OLS model to this paper. The contemplate uncovers that those effect of enthusiasm rates may be negative demonstrate that an increment from claiming investment rates reasons a decay for reit costs. Directed an investigation that looks at two vital issues, in particular those relationship of the reit advertise with stock costs Furthermore interest rates. The fundamental destination of the examine might have been effect about stock costs Furthermore premium rates on the REIT showcase on Japan. Those consider need been utilized OLS model to this paper. Those examine uncovers that those effect of interest rates will be negative demonstrate that an increment about premium rates makes a decrease On REIT costs.

Khan zohaib, (2012), investigation that investment rates what's more conversion scale What's more expansion need relationship for stock costs. This considers will make led with test this relationship observationally. The investigation need been utilized relapse model Furthermore anova. This paper instigates those effect for premium rate, expansion What's more conversion scale on the stock returns for KSE 100. Effects of the various regressions showed a feeble variety in the subordinate variable because of autonomous variables.

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Sokolov.V, (2006), examines the study those ways about reliance looking into two plan B characterization of conversion scale approach. This study need been utilized board information set about 180 nations and relapse test. This ponder discovered that that nations that need more open capital business sectors background An more amazing decrease clinched alongside instability over nations shut with worldwide money streams. Those nations that have that have only the tip of the iceberg open capital businesses encounter a more stupendous diminishment done instability over nations shut on global capital streams.

Abdelbaky.M, (2006), investigation on analyze the impacts about liberalization - connoted by applying All the more adaptable conversion scale regimes - on the level from claiming joining under global monetary business sectors measured Likewise the extent of the overabundance exchange In the thing that revealed investment rate equality predicts. This consider need been utilized a markov exchanging administration model as the experimental methodology of the dissection.

Hwang NING .Y,(2006), investigation on investigate the part of propensity framing in the open economy, over particular, its sway on the genuine conversion scale hold on in What's more return rate regime. This examine need been utilized DSGE model to dissection those information. This contemplate found that propensity shaping doesn't expansion true conversion scale persistence, despite the fact that propensity creation does enhance the fitting of the model of the information.

Islami.M, (2013), et, al, investigation request on inspect at whatever possibility joins between ostensible securities exchange list What's more ostensible trade rate. This study need been utilized Granger causality tests to dissection the information. This consider found that critical joins exist the middle of those stock exchange record and the remote trade rate to three countries, the place for Poland, both long haul Furthermore fleeting joins exist.

Elsherif.A.M, (2003), investigation will inspect observationally how national bank about Egypt activities impact conversion scale instability. This investigation need been utilized summed up autoregressive restrictive heteroscedasticity (1,1) model under Gaussian ordinary distribution, this consider discovered that show those vicinity from claiming instability grouping Be that as this instability shocks would not thus truly constant. National bank movements affected conversion scale instability positively through investment rate, What's more negatively through stores sum.

Ishioro B.O,(2014), investigation about conversion scale desires shaping essential arises a direct result budgetary operators Previously, choosing which strategy to take after would continually faced with an dubious surroundings predominant for practically created Furthermore Creating countries' monetary divisions Furthermore businesses. This examine need been utilized ECM & ADF. This ponders discovered that a long-run harmony relationship exists between trade rates what's more rate of expansion. Thus, trade. Rate desires might be settled further more regulated through inflationary desires observing and regulation.

Samuel o.s., (2012), investigation from claiming how enthusiasm rates influence the benefit of store cash banks to Nigeria. Those consider might have been In light of organizations in the nation aggravator level twelve-month information that secured a period from claiming thirteen quite some time 1999 will 2012 Furthermore made

utilization of multivariate relapse investigation under an econometric skeleton. This examine need been utilized within ADF & roe. This paper investigated that the investigation discovered no critical relationship the middle of investment rate variables (minimum rediscount rate, prime loaning rate, reserve funds store rate, greatest giving rate and additionally treasury bills rate) and net premium edge of store cash banks Previously, Nigeria.

Soriano's et al, (2015), investigation to investigate the association the middle of those securities exchange What's more trade business of Pakistan purposes of presentation. This contemplate need been utilized KSE-100 list will be utilized as a substitute of stock costs. This examine discovered that there is no association exists between conversion scale Furthermore stock cost What's more both those variables would autonomous about one another.

Égert.B, (2009), investigation Figure solid nonlinear impacts for product prices, discerned organizations in the nation What's more developing showcase danger premium and progressions in the dollar-euro conversion scale on progressions done Every day returns of the rand-dollar return rate This study need been utilized DOLS model & GARCH model. This contemplate need been investigated found some proof to extremely fleeting impacts on the rand-dollar conversion scale of Different macroeconomic surprises Also national bank correspondence pointed toward talking dependent upon the rand (but not debilitating it).

Kabir S.H, (2014), investigation if there will be whatever noteworthy association the middle of the stock prices, macroeconomic variables also outside stock costs on an economy. This ponder need been utilized ADF & p. P test. This contemplate investigated will this demonstrates those presence from securing a statistically critical long run association "around the variables. Therefore, a straight mix about these variables has a tendency towards harmony.

Ghosh R, (2011), Directed An investigation with dissect the transforms over capital controls On India, should arrange the conversion scale administration Furthermore will examine if those transforms On capital controls required an impact on the conversion scale administration. This ponder need been utilized CIP &AREAR. That study investigated to Figure that conversion scale rigidity might prompt fiscal arrangement distortions.

Adam.p (2015), investigation comes about of the information examination reveals to that interest rates would impact Eventually Tom's perusing expansion, current record harmony, government deficit. This investigation need been utilized lvar model Furthermore ADF test. This investigation investigated reaction about bi interest rates will progressions that happened in outer factors, especially in the costs for reality raw petroleum Furthermore transforms outside diversions rates.

Vaz.J.J(2008), investigation analyzes that impact of openly affirmed progressions for official investment rates on the stock returns of the major banks over Australia Throughout the time starting with 1990 should over 2,800 doctor look assignments led from April 1, 2009 to March 31, 2010. This ponder need been utilized CAPM model. This study investigates the response of bank stock returns should transforms in the trade rate, as measured toward their abnormal and combined returns.

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Chen Haiyan(2015), Direct an investigation estimates the collaboration between interest rates Also stock returns done china Eventually Tom's perusing utilizing the structural vector autoregressive (SVAR) models for a long-run restriction, and the association over us is broke down similarly as an examination. Those investigation need been utilized GARCH MODEL,VAR model & SVAR model. This contemplates Figure the association relationship between investment rates furthermore stock returns for china Furthermore clarify it.

**OBJECTIVES OF THE STUDY**

- The objective is to examine the relationship between exchange rate and interest rate and their impact on bank stock return.
- To open new vista for further research.

**RESEARCH METHODOLOGY**

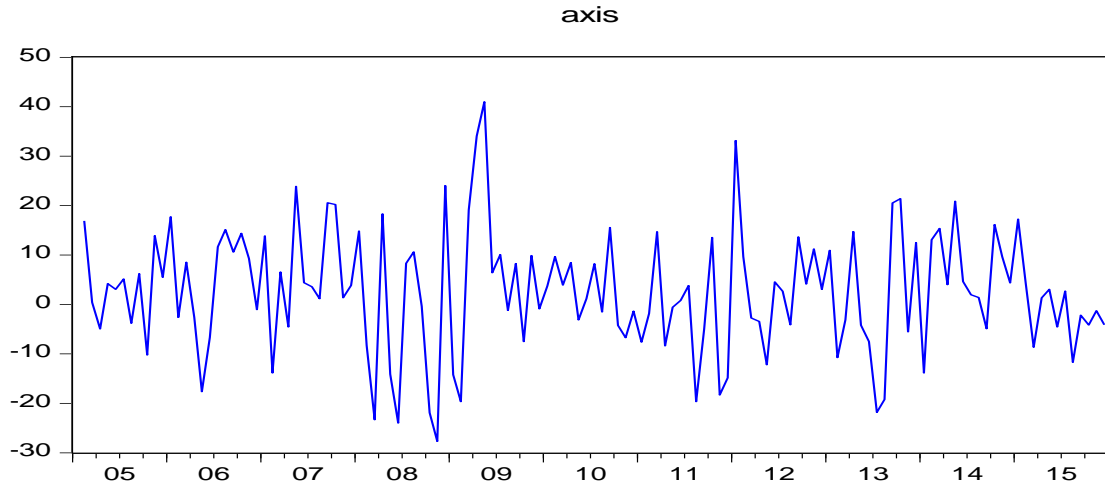
- **The study:** The study was causal in nature.
- **Population:** The population for study includes bank stock return , exchange rate and interest rate
- **Sample size:** Sample size for the study is Monthly data of Bank stock return 2005 to 2015.
- **Sample element:** Bank stock return, Exchange rate, Interest rate.
- **Sampling Technique:** Non probability purposive sampling technique has used.
- **Tools used for Data Collection:** Secondary data of bank stock return collected from money control website and interest rate and exchange rate data collected from official website of **RBI**.
- **Tools used for data analysis**
- Augmented Dickey – Fuller (ADF) test: To check the stationary of the Data.
- Least Square Linear: To establish cause and effect relationship among variables.

**HYPOTHESIS**

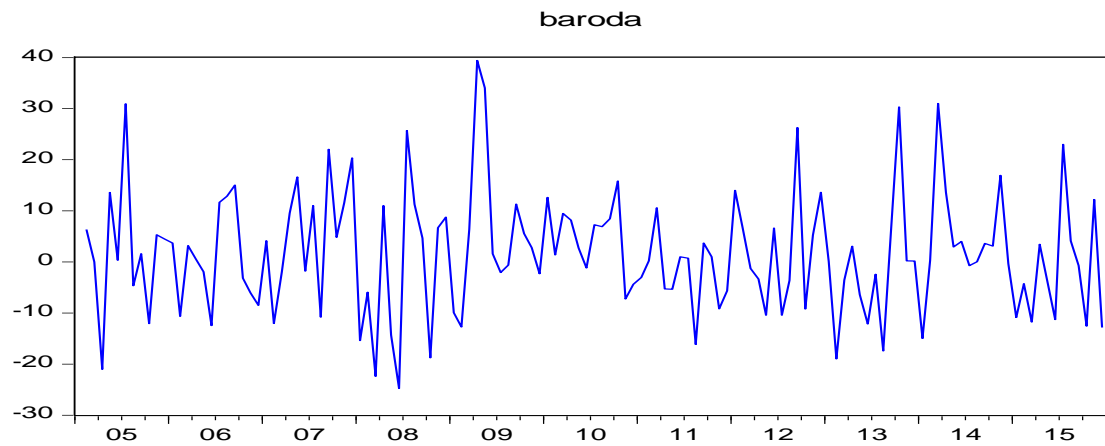
$H_{01}$  : there is no significant relationship between exchange rate and interest rate and their impact on bank stock return.

**RESULT AND DISCUSSION**

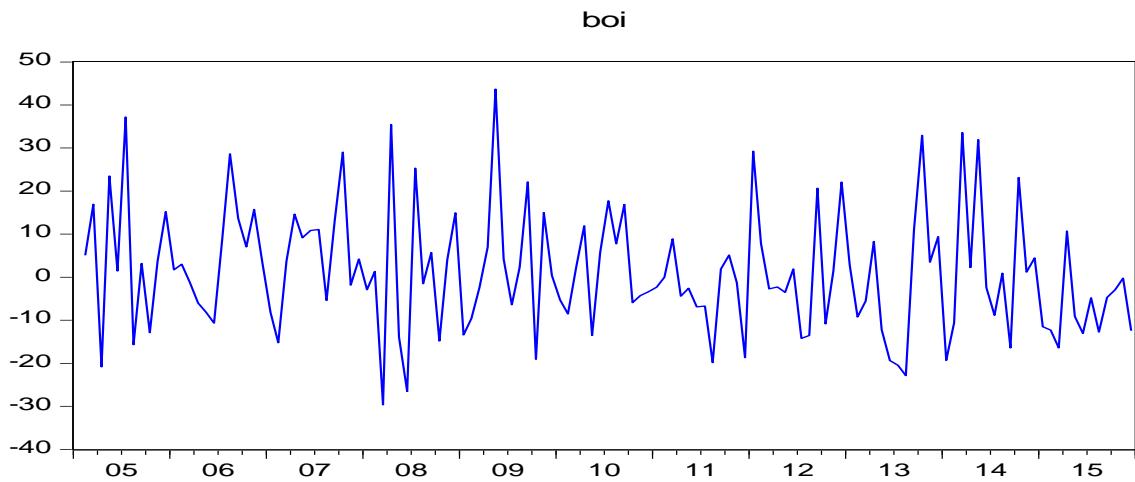
All graphs are showing **intercept** flow of studied data. This helps to analyze data when we apply unit root test to find the Stationarity of data.



**BANK OF BARODA STOCK RETURN**



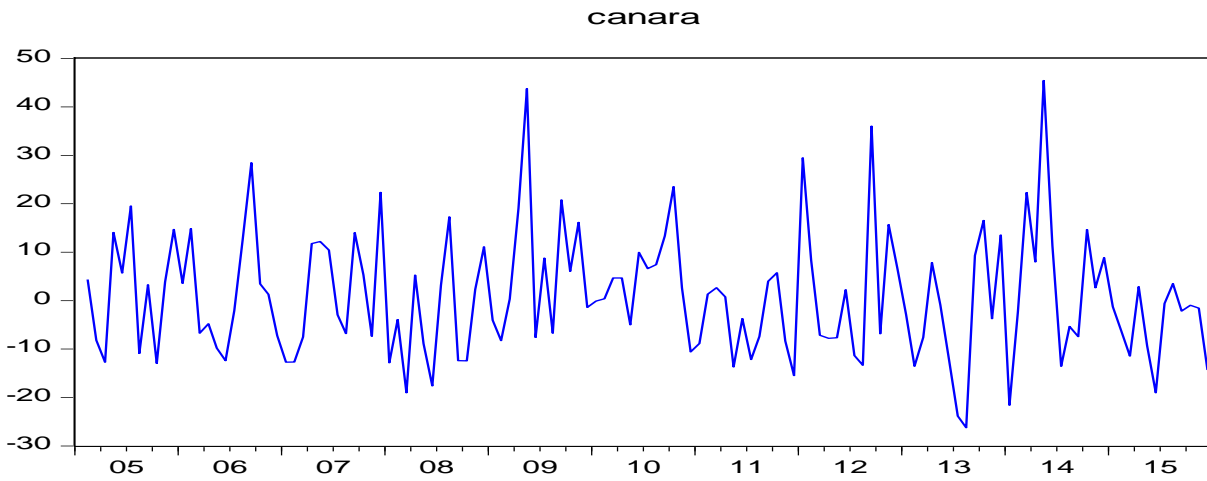
**BANK OF INDIA STOCK RETURN**



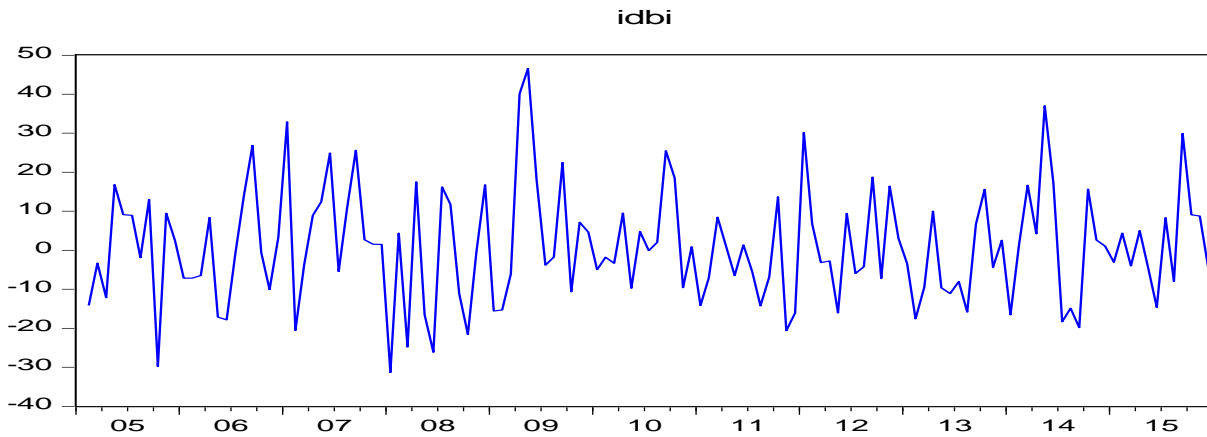
**CANARA STOCK RETURN**



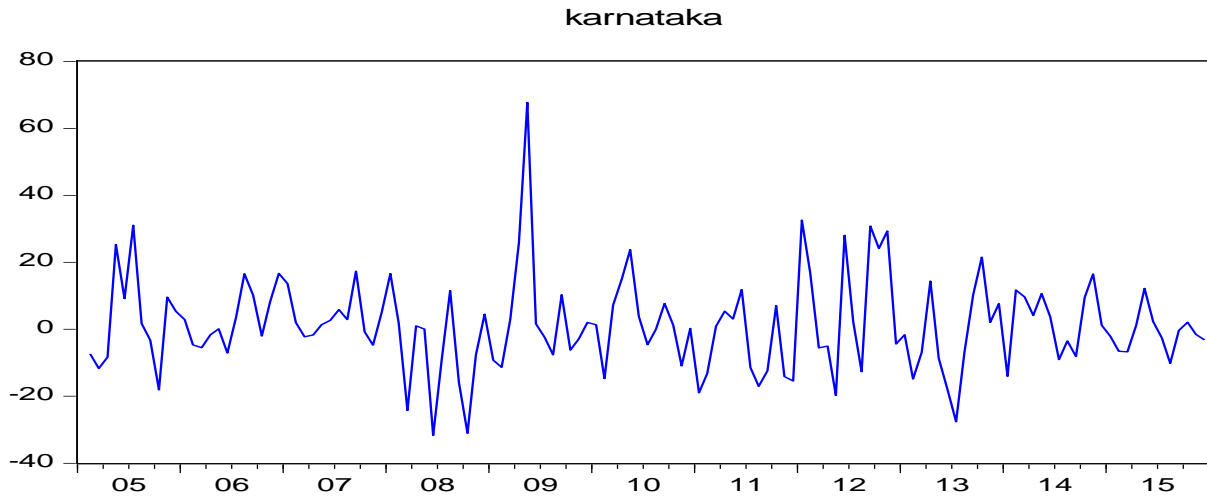
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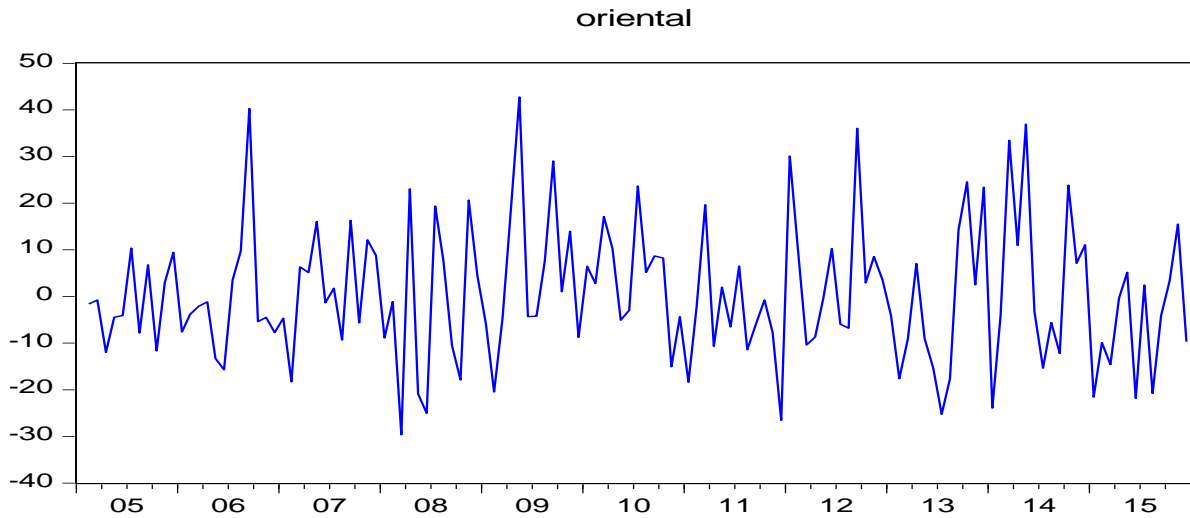
IDBI STOCK RETURN



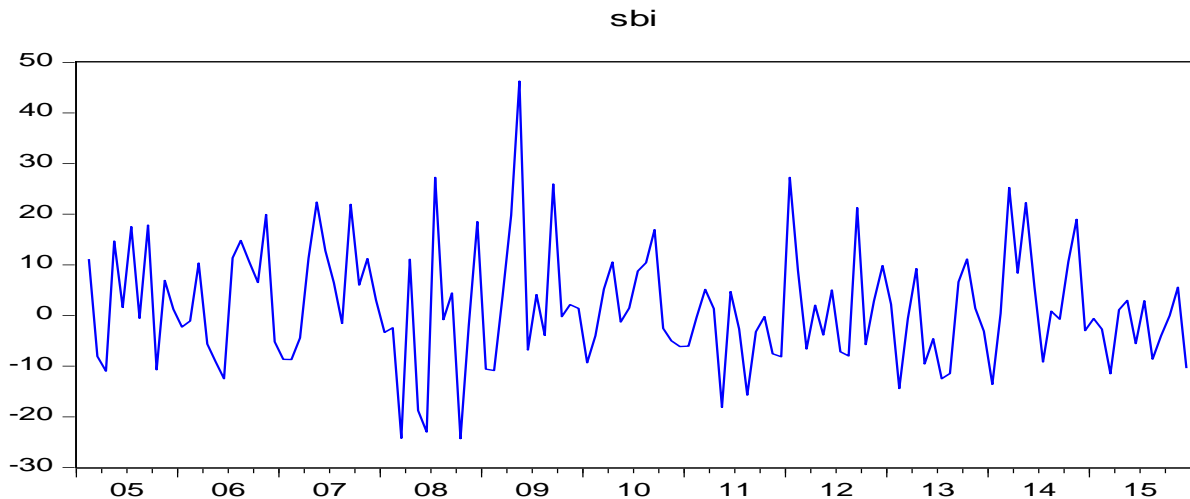
KARNATAKA STOCK RETURN



**ORIENTAL BANK OF COMMERCE STOCK RETURN**

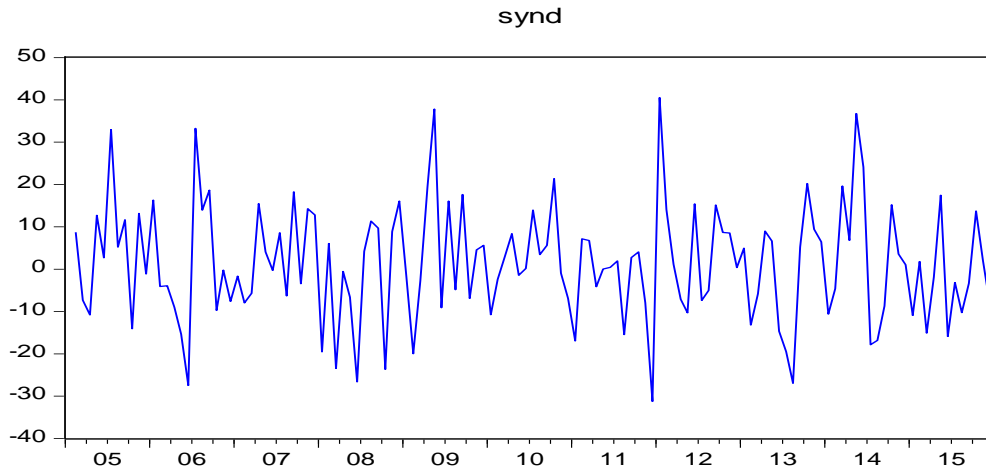


**S.B.I STOCK RETURN**

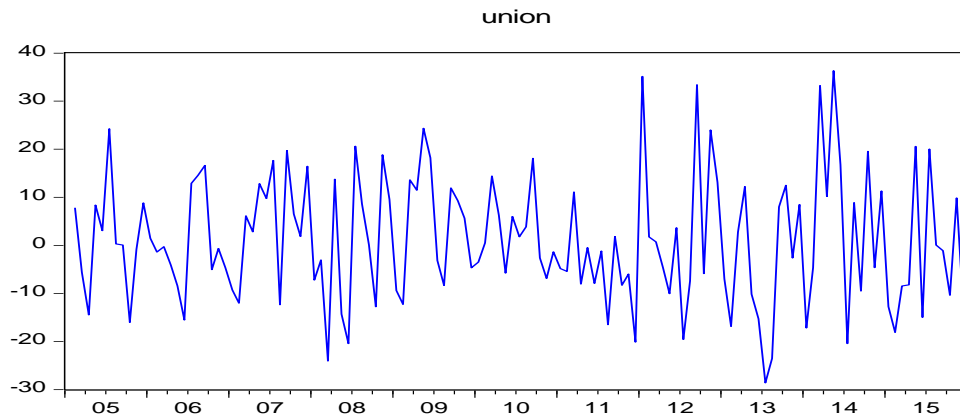


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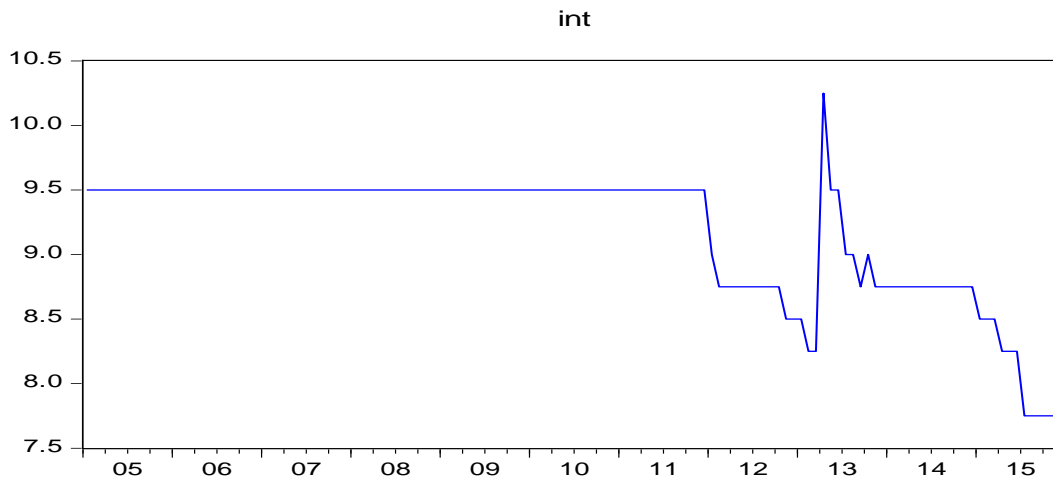
SYNDICATE STOCK RETURN



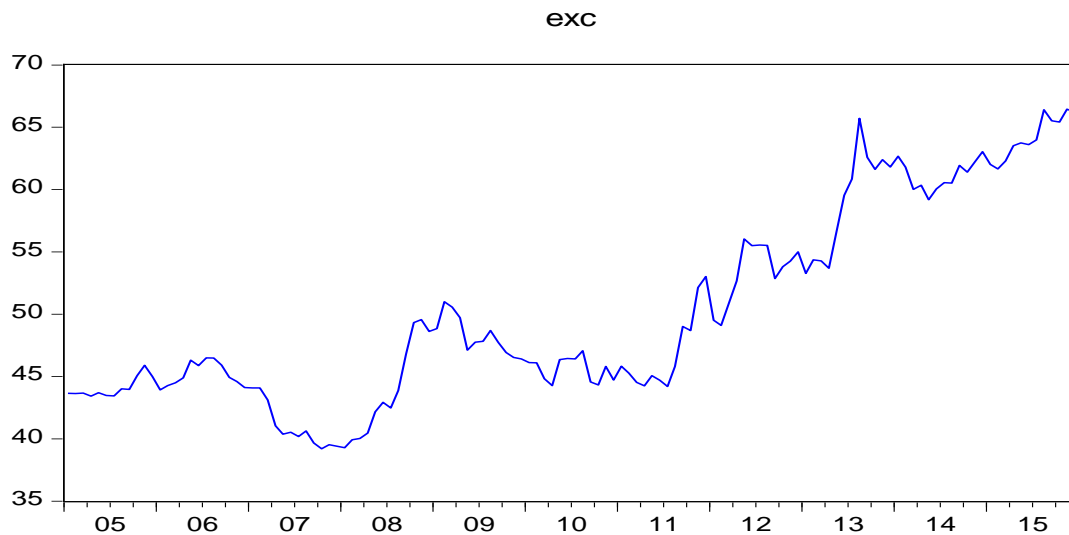
UNION STOCK RETURN



INTEREST RATE



**EXCHANGE RATE**



**DATA DESCRIPTIVE STATISTICS**

**TABLE NO 1**

	AXIS	BANK_OF_BARODA	BOI	CANARA	EXC	INT	IDBI	KARNATAKA	ORIENTAL	SBI	SYNDICATE	UNION
Mean	2.585253	1.701768	1.210681	0.859671	50.09973	9.232824	0.863144	1.226860	0.398397	1.635875	1.297726	1.067627
Median	3.050101	0.734029	0.378047	-0.610320	46.81500	9.500000	-0.604961	1.027832	-1.617716	-0.021075	0.427533	-0.286416
Maximum	40.98803	39.41590	43.67425	45.43490	66.46200	10.25000	46.54088	67.71782	42.74286	46.28630	40.51095	36.32153
Minimum	-27.68397	-24.73616	-29.66208	-26.24719	39.19500	7.750000	-31.33696	-31.66095	-29.64954	-24.30238	-31.25941	-28.61745
Std. Dev.	12.33357	11.87461	14.30324	12.83129	7.814177	0.444183	14.57089	13.79575	14.57557	11.52569	13.68194	13.19715
Skewness	0.089869	0.526989	0.574110	0.792768	0.638900	-1.201039	0.472352	0.934588	0.565657	0.598951	0.257451	0.343370
Kurtosis	3.297269	3.621589	3.182655	4.056335	2.091830	3.764508	3.268997	6.427893	3.272475	4.026490	3.292191	2.810969
Jarque-Bera	0.658682	8.172455	7.378414	19.81250	13.41410	34.68469	5.266336	83.20832	7.391206	13.58389	1.913140	2.769250
Probability	0.719398	0.016803	0.024992	0.000050	0.001222	0.000000	0.071850	0.000000	0.024832	0.001123	0.384208	0.250418
Sum	338.6682	222.9317	158.5992	112.6169	6563.065	1209.50	113.0718	160.7186	52.19003	214.2997	170.0021	139.8592

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Sum	197	18330.84	265	214	793	25.6	276	24741.	2761	172	24335.	226
Sq. Dev.	75.2		95.7	03.4	7.97	4885	00.4	94	8.15	69.4	40	41.4
Dev.	1		4	7	7		2			0		3
Observations	131	131	131	131	131	131	131	131	131	131	131	131

**According to table no.1** The descriptive statistics for all the variables under study, namely, Bank stock return, interest rate, exchange rate, The value of skewness of the above variables has pointed all variables had extreme value during the study period. It indicates a deviation from normal distribution of the data and volatility in those parameters and interest rate had low value. The value for kurtosis exchange rate and union bank stock return has lighter kurtosis as its value less than 3 of normal distribution, other variable are heavier kurtosis as its value is more than 3 which is more than normal distribution and other to variable shows normal distribution as its equal to 3. **Jarque-Bera test** statistic measures the difference of the skewness and kurtosis of the data series with those from the normal distribution. The significant coefficient of Jarque-Bera statistics indicates that Axis, syndicate and union data has normalized data as its value is more than 0.05. Other variables are not normalized because data as its value is more than 0.05.

**UNIT ROOT TEST TABLE**

TABLE NO 2

Variables	ADF Test	Order of Integration
	H0: Variable is not stationary	
<b>Exogenous</b>	<b>Constant</b>	
<b>Bank stock return</b>		
<b>Axis</b>	-10.46295	I(0)
<b>Bank Baroda</b>	-10.80763	I(0)
<b>Bank of India</b>	-11.96242	I(0)
<b>IDBI</b>	-10.61405	I(0)
<b>Canara</b>	-9.946187	I(0)
<b>Karnataka</b>	-8.405287	I(0)
<b>Oriental</b>	-10.97677	I(0)

<b>SBI</b>	-10.63046	I(0)	
<b>Syndicate</b>	-11.05281	I(0)	
<b>Union</b>	-11.11072	I(0)	
<b>Interest rate</b>	-14.81354	I(1)	
<b>Exchange rate</b>	-10.52631	I(1)	
<b>Asymptotic critical values</b>			
<b>Test critical value</b>	<b>Bank return</b>	<b>Exchange rate</b>	<b>Interest rate</b>
<b>1% Level</b>	-3.481217	-3.481217	-3.481217
<b>5% Level</b>	-2.883753	-2.883753	-2.883753
<b>10% Level</b>	-2.578694	-2.578694	-2.578694

**Note:** \*\*\* implies significant at 1% level, \*\* implies significant at 5% level and \* implies significant at 10% level.

In statistics, the unit root test is applied to test the stationarity of the data. There exist several test to test the presence of unit root in the series among them, the most commonly used in the literature is the Augmented Dickey-Fuller (ADF) test to analyze stationarity in the time series. The application of unit root test is initial step before proceeding to the Least Square regression test and vector auto-regression test.

**The above Table no.2** shows that Axis bank stock return variables are stationary at level but Interest rate and Exchange rate which is stationary at first level difference. This analyzes that the series of Interest rate and Exchange rate is integrated of order one, I (1) except bank stock return which is integrated at order zero, I (0).

### LEAST SQUARE METHOD

TABLE NO.3.1- Axis Bank

Dependent Variable: AXIS				
Method: Least Squares				
Date: 03/21/17 Time: 13:35				
Sample (adjusted): 2005M02 2015M12				
Included observations: 131 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.649374	0.851695	4.284836	0.0000

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D(INT)	1.979891	4.016894	0.492891	0.6229
D(EXC)	-6.024685	0.659740	-9.131912	0.0000
R-squared	0.397677	Mean dependent var		2.585253
Adjusted R-squared	0.388266	S.D. dependent var		12.33357
S.E. of regression	9.646508	Akaike info criterion		7.393704
Sum squared resid	11911.06	Schwarz criterion		7.459548
Log likelihood	-481.2876	Hannan-Quinn criter.		7.420459
F-statistic	42.25535	Durbin-Watson stat		1.964946
Prob(F-statistic)	0.000000			

According to table no 3.1 the impact of axis bank stock returns on exchange and interest rate. Interest rate having positive relationship on bank stock return but insignificant. Exchange rate having negative relation on bank stock return but significant. R-square value is 0.397677 Durbin –Watson standard value is 2, here 1.964946 so that it is good. F-statistic value standard value is 42 here 42.25535 and prob value is 0.000 so it is significant.

**TABLE NO. 3.2- BANK OF BARODA**

Dependent Variable: BARODA				
Method: Least Squares				
Date: 03/21/17 Time: 13:45				
Sample (adjusted): 2005M02 2015M12				
Included observations: 131 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.371787	0.956897	2.478622	0.0145
D(INT)	-0.414668	4.513065	-0.091882	0.9269
D(EXC)	-3.922267	0.741232	-5.291554	0.0000
R-squared	0.179780	Mean dependent var		1.701768
Adjusted R-squared	0.166964	S.D. dependent var		11.87461
S.E. of regression	10.83806	Akaike info criterion		7.626639
Sum squared	15035.32	Schwarz criterion		7.692483

resid			
Log likelihood	-496.5448	Hannan-Quinn criter.	7.653394
F-statistic	14.02782	Durbin-Watson stat	2.049967
Prob(F-statistic)	0.000003		

According to table no.3.2 impact of bank of baroda bank stock return on exchange and interest rate . interest rate having negative relationship on bank stock return and also insignificant. Exchange rate having negative relation on bank stock return but significant . R-square value is 0.179780. durbin –watson standard value is 2 , here 2.049967 so it is not good . f-statistic value standard value is 42 here 14.02782 and prob value is 0.003 so it is not significant.

**TABLE NO. 3.3- BANK OF INDIA**

Dependent Variable: BOI				
Method: Least Squares				
Date: 03/21/17 Time: 13:47				
Sample (adjusted): 2005M02 2015M12				
Included observations: 131 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.169529	1.114700	1.946289	0.0538
D(EXC)	-5.310901	0.863469	-6.150657	0.0000
D(INT)	3.302451	5.257320	0.628162	0.5310
R-squared	0.232840	Mean dependent var		1.210681
Adjusted R-squared	0.220853	S.D. dependent var		14.30324
S.E. of regression	12.62537	Akaike info criterion		7.931928
Sum squared resid	20403.20	Schwarz criterion		7.997773
Log likelihood	-516.5413	Hannan-Quinn criter.		7.958684
F-statistic	19.42453	Durbin-Watson stat		2.268982
Prob(F-statistic)	0.000000			

According to table no. 3.3 impact of boi bank stock return on exchange and interest rate . interest rate having positive relationship on bank stock return but insignificant. Exchange rate having negative relation on bank stock return but significant . R-square value is 0.232840. durbin –watson standard value is 2 , here 2.268982 so it is good . f-statistic value standard value is 42 here 19.42453 and prob value is 0.000 so it is significant.

**TABLE NO. 3.4- CANARA BANK**



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Dependent Variable: CANARA				
Method: Least Squares				
Date: 03/21/17 Time: 13:49				
Sample (adjusted): 2005M02 2015M12				
Included observations: 131 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.757818	0.976681	1.799787	0.0742
D(INT)	0.652800	4.606371	0.141717	0.8875
D(EXC)	-5.163976	0.756556	-6.825635	0.0000
R-squared	0.268182	Mean dependent var		0.859671
Adjusted R-squared	0.256747	S.D. dependent var		12.83129
S.E. of regression	11.06213	Akaike info criterion		7.667567
Sum squared resid	15663.45	Schwarz criterion		7.733411
Log likelihood	-499.2256	Hannan-Quinn criter.		7.694322
F-statistic	23.45341	Durbin-Watson stat		1.825960
Prob(F-statistic)	0.000000			

According to table no.3.4 impact of canara bank stock return on exchange and interest rate . interest rate having positive relationship on bank stock return but insignificant. Exchange rate having negative relation on bank stock return but significant . R-square value is 0.268182 . durbin –watson standard value is 2 , here 1.825960 so it is good . f-statistic value standard value is 42 here 23.45341 and prob value is 0.000 so it is significant.

**TABLE NO. 3.5- IDBI Bank**

Dependent Variable: IDBI				
Method: Least Squares				
Date: 03/21/17 Time: 13:50				
Sample (adjusted): 2005M02 2015M12				
Included observations: 131 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

C	1.882747	1.107585	1.699867	0.0916
D(INT)	0.378341	5.223762	0.072427	0.9424
D(EXC)	-5.890437	0.857957	-6.865653	0.0000
R-squared	0.270172	Mean dependent var		0.863144
Adjusted R-squared	0.258768	S.D. dependent var		14.57089
S.E. of regression	12.54478	Akaike info criterion		7.919121
Sum squared resid	20143.57	Schwarz criterion		7.984966
Log likelihood	-515.7025	Hannan-Quinn criter.		7.945877
F-statistic	23.69188	Durbin-Watson stat		1.896453
Prob(F-statistic)	0.000000			

According to table no. 3.5 impact of idbi bank stock return on exchange and interest rate . interest rate having positive relationship on bank stock return but insignificant. Exchange rate having negative relation on bank stock return but significant . R-square value is 0.270172. durbin –watson standard value is 2 , here 1.896453 so it is good . f-statistic value standard value is 42 here 23.69188 and prob value is 0.000 so it is significant.

**TABLE NO 3.6- KARNATAKA BANK**

Dependent Variable: KARNATAKA				
Method: Least Squares				
Date: 03/21/17 Time: 13:51				
Sample (adjusted): 2005M02 2015M12				
Included observations: 131 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.196907	1.058597	2.075301	0.0400
D(INT)	3.317233	4.992717	0.664414	0.5076
D(EXC)	-5.374776	0.820010	-6.554524	0.0000
R-squared	0.256279	Mean dependent var		1.226860
Adjusted R-squared	0.244659	S.D. dependent var		13.79575
S.E. of regression	11.98993	Akaike info criterion		7.828646
Sum squared resid	18401.09	Schwarz criterion		7.894490
Log	-509.7763	Hannan-Quinn criter.		7.855402

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likelihood			
F-statistic	22.05383	Durbin-Watson stat	1.569571
Prob(F-statistic)	0.000000		

According to table no. 3.6 impact of karnatka bank stock return on exchange and interest rate . interest rate having positive relationship on bank stock return but insignificant. Exchange rate having negative relation on bank stock return but significant . R-square value is 0.256279. durbin –watson standard value is 2 , here 1.569571 so it is good . f-statistic value standard value is 42 here 22.05383 and prob value is 0.000 so it is significant.

**TABLE NO. 3.7- ORIENTAL BANK OF COMMERCE**

Dependent Variable: ORIENTAL				
Method: Least Squares				
Date: 03/21/17 Time: 13:44				
Sample (adjusted): 2005M02 2015M12				
Included observations: 131 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.449754	1.102671	1.314765	0.1909
D(EXC)	-5.940104	0.854151	-6.954397	0.0000
D(INT)	2.114927	5.200586	0.406671	0.6849
R-squared	0.277098	Mean dependent var		0.398397
Adjusted R-squared	0.265802	S.D. dependent var		14.57557
S.E. of regression	12.48913	Akaike info criterion		7.910228
Sum squared resid	19965.22	Schwarz criterion		7.976073
Log likelihood	-515.1200	Hannan-Quinn criter.		7.936984
F-statistic	24.53203	Durbin-Watson stat		2.082259
Prob(F-statistic)	0.000000			

According to table no. 3.7 impact of oriental bank of commerce bank stock return on exchange and interest rate . interest rate having positive relationship on bank stock return but insignificant. Exchange rate having negative relation on bank stock return but significant . R-square value is 0.277098 . durbin –watson standard value is 2 , here

2.082259 so it is good . F-statistic value standard value is 42 here 24.53203 and prob value is 0.000 so it is significant.

**TABLE NO. 3.8- SBI**

Dependent Variable: SBI				
Method: Least Squares				
Date: 03/21/17 Time: 13:42				
Sample (adjusted): 2005M02 2015M12				
Included observations: 131 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.465693	0.873358	2.823233	0.0055
D(INT)	1.866573	4.119065	0.453155	0.6512
D(EXC)	-4.673121	0.676520	-6.907584	0.0000
R-squared	0.274747	Mean dependent var		1.635875
Adjusted R-squared	0.263415	S.D. dependent var		11.52569
S.E. of regression	9.891871	Akaike info criterion		7.443938
Sum squared resid	12524.69	Schwarz criterion		7.509782
Log likelihood	-484.5779	Hannan-Quinn criter.		7.470694
F-statistic	24.24508	Durbin-Watson stat		2.000672
Prob(F-statistic)	0.000000			

According to table no. 3.8 impact of sbi bank stock return on exchange and interest rate. Interest rate having positive relationship on bank stock return but insignificant. Exchange rate having negative relation on bank stock return but significant. R-square value is 0.274747. Durbin –Watson standard value is 2, here 2.000672 so it is good. f-statistic value standard value is 42 here 24.24508 and prob value is 0.000 so it is significant.

**TABLE NO 3.9- SYNDICATE BANK**

Dependent Variable: SYND				
Method: Least Squares				
Date: 03/21/17 Time: 13:39				
Sample (adjusted): 2005M02 2015M12				
Included observations: 131 after adjustments				

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Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.107486	1.091208	1.931333	0.0557
D(INT)	-0.286193	5.146523	-0.055609	0.9557
D(EXC)	-4.723640	0.845271	-5.588311	0.0000
R-squared	0.196550	Mean dependent var		1.297726
Adjusted R-squared	0.183996	S.D. dependent var		13.68194
S.E. of regression	12.35930	Akaike info criterion		7.889328
Sum squared resid	19552.28	Schwarz criterion		7.955173
Log likelihood	-513.7510	Hannan-Quinn criter.		7.916084
F-statistic	15.65648	Durbin-Watson stat		2.065700
Prob(F-statistic)	0.000001			

According to table no. 3.9 of impact of syndicate bank stock return on exchange and interest rate. Interest rate having negative relationship on bank stock return but insignificant. Exchange rate having negative relation on bank stock return but significant. R-square value is 0.196550. Durbin-Watson standard value is 2, here 2.065700 so it is good. F-statistic value standard value is 42 here 15.65648 and prob value is 0.000 so it is significant.

**TABLE NO. 3.10- UNION BANK**

Dependent Variable: UNION				
Method: Least Squares				
Date: 03/21/17 Time: 13:38				
Sample (adjusted): 2005M02 2015M12				
Included observations: 131 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.946256	1.029076	1.891265	0.0608
D(INT)	2.548147	4.853486	0.525014	0.6005
D(EXC)	-4.903651	0.797143	-6.151535	0.0000
R-squared	0.231979	Mean dependent var		1.067627
Adjusted R-squared	0.219978	S.D. dependent var		13.19715
S.E. of	11.65557	Akaike info criterion		7.772080

regression			
Sum squared resid	17389.10	Schwarz criterion	7.837925
Log likelihood	-506.0713	Hannan-Quinn criter.	7.798836
F-statistic	19.33102	Durbin-Watson stat	2.082101
Prob(F-statistic)	0.000000		

According to table no. 3.10 Impact of union bank stock return on exchange and interest rate . interest rate having positive relationship on bank stock return but insignificant. Exchange rate having negative relation on bank stock return but significant . R-square value is 0.231979 . Durbin –watson standard value is 2 , here 2.082101 so it is not good . f-statistic value standard value is 42 here 19.33102 and prob value is 0.000 so it is significant.

### **LIMITATIONS**

- DATA was available in quarterly format and other variable were not available.
- Time period for research was short.
- DATA available on site of RBI if it is wrong it would result in failure of research.

### **CONCLUSION**

Our study investigated the relationship between exchange rate and interest rate and their impact on bank stock return . The analysis is carried on the monthly in the time span of January 2005 to December 2015. The results of ADF test confirmed that the observed variables are integrated of order zero i.e., I (0) except interest rate and exchange rate . This suggest that the interest rate and exchange rate are non stationary (unit root ) at their levels and then stationary at their first difference and other variables are stationary at their levels. Least square test says that the exchange rate has an impact on bank stock return and the interest rate has no impact on bank stock return.

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