An Analytical Study Of The Impact Of Monetary Policy Rates On Price Level Changes (Inflation Rates Based On Combined Consumer Price Index)

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Abstract

India is an economy, where the financial diversity is found. Except that there is also a problem of increasing price level. The RBI had been established in the year 1935, with the objective of regulating the money supply in India. Monetary policy is a tool, by which RBI regulates the overall circulation of money or currency in an economy. With the help of monetary policy price stability, economic growth etc. is maintained by the Government. In India the whole money market is controlled and regulated by Reserve Bank of India. The Monetary policy is determined by goal of the policy, the tools, its implementation and efficiency, price stability etc.

The Monetary policy is an effective tool to maintain price stability. The Monetary policy report is the document, published every six months by the Reserve Bank of India, which shows the trend and pattern of policy rates and inflation.

This study focuses on the study of the impact of Monetary Policy on Price Level Changes, mainly monetary policy rates such as Bank rate, Policy Repo Rate, Reverse Repo Rate, Cash Reserve Ratio, Statutory Liquidity Ratio and Marginal Standing Facility& Inflation Rates based on combined consumer price index.

In this study, secondary data has been used for analysis. For the analytical study trend analysis, correlation and regression statistical tools have been used. The analysis has been presented through tables and bar charts. It was found that for controlling inflation in the economy, many changes are made in the monetary policy rates & these changes are effective collectively.

Keywords: *Monetary Policy Rates (Quarter 1 & quarter 2 of 2017-18 & 2018-19), Inflation rate based on Combined Consumer Price Index.*

Introduction:

The financial market works like the heart in an economy and Money market is a part of it. Monetary policy acts like the kidney, which cleans the money supply according to the need of the economy. Monetary policy is the macroeconomic policy laid down by the central bank of a nation. This being the demand side economic policy, the supply of money in the economy and rates of interest are regulated in order to maintain consumption and growth as well as rein in inflation and to keep required liquidity.

The preamble of the Reserve Bank of India, (the supreme statutory body) states the objective as bringing about monetary stability in India. RBI aims to ensure growth in the economy together with maintenance of price equilibrium. It regulates the issue of Bank notes and maintains reserves and operates the currency and

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credit system of the country for its benefit. Further it keeps a modern monetary policy framework in order to meet the increasing challenges of a complex economy.

Monetary policy is an instrument through which Reserve Bank of India maintains the money supply in the economy, so that the value of money can be made stable.

The main objective of the monetary policy is to maintain price stability. Through different instruments used in the Monetary Policy this aim is achieved. These instruments are Repo Rate, Bank Rate, Reverse Repo rate, CRR, SLR and MSF:

Bank Rate: It is charged by the Central Bank for lending funds to commercial banks. It influences lending rates of commercial banks. The Central bank may raise the bank rate whenever it wants to reduce liquidity, similarly it may reduce bank rates to bring in liquidity.

Repo rate: Commercial Banks when in need of funds borrow from RBI by pledging their Government securities, the rate at which is called the repo rate. These funds are required for day-to day meeting of obligations of commercial banks.

Reverse repo rate: Commercial Banks park their surplus funds for short durations from the RBI at a rate of interest. Such rate is called the Reverse Repo rate. This is done by Banks when they do not have any lending or investment option for their extra funds and wish to earn interest on them.

Cash Reserve Ratio: It is the percentage of cash deposits that banks need to keep with the Reserve Bank of India on a fortnightly basis.

Fig. 1.1

Statutory Liquidity Ratio: It is mandatory for the Commercial Banks to keep a fixed percentage of their deposits invested in financial securities as may be specified like the Central Government or State Government securities known as the Statutory Liquidity Ratio. Statutory Liquidity Ratio enables the Banks to earn interest on such investments as against the Cash Reserve Ratio where there are no earnings. These funds are mainly invested in Government Approved Securities (bonds) and/or Gold.

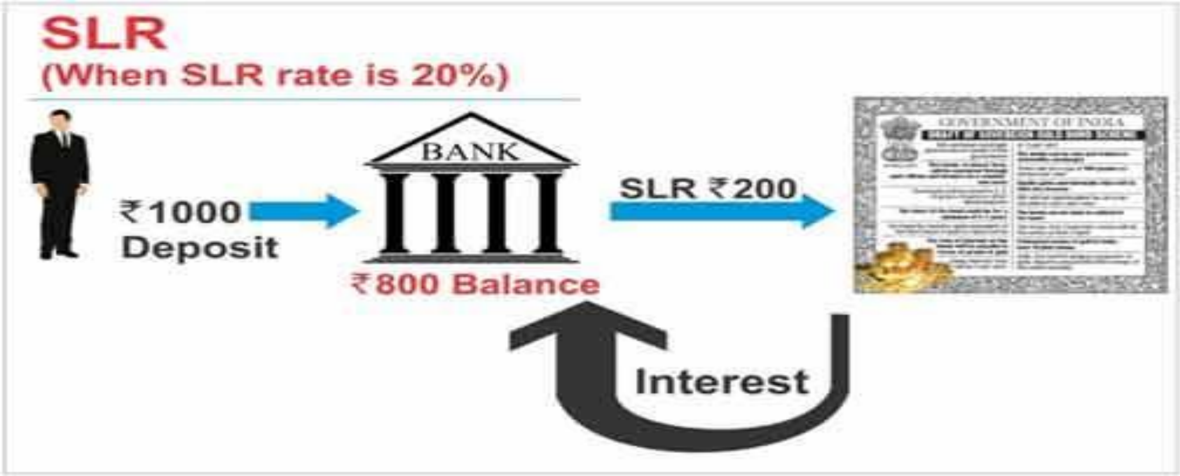

Fig. 1.2

Fig. 1.3

Marginal Standing Facility: It is the facility granted by RBI when Inter-bank lending is not forthcoming and banks are in a dire situation. Under the LAF i.e. Liquid Adjustment Facility the commercial banks pledge their Government securities at a rate higher than the Repo rate. This rate is pegged at100 basis points or one percentage point above the repo rate. This facility enables banks to borrow up to 1% of their net demand and time liabilities.

Objectives of the study:

- To study the pattern of Monetary Policy Rates during 2018.
- To study the trend in inflation rate based on CPI rural basket.
- To analyse the relationship between monetary policy rates and inflation rate.

Significance of the study:

This study will provide relevant result to different research scholars, investigators and concerned institutes. This will also help the policy makers.

Review of Literature:

Mark Bils, Peter J. Klenow & Benjamin A. Malin, (2009) explained in their study based on the topic, ***Reset Price Inflation and the Impact of Monetary Policy Shocks***: that the real variables are affected by monetary policy changes for a longer number of years much more than the nominal prices.

Iyiola, R. O. and Adetunji, A. A. (Vol. 1 Issue 6, August 2014.) concluded in his research work based on the topic: '***THE EFFECT OF MONETARY POLICY ON CONSUMER PRICE INDEX'*** that monetary policy has a great impact on consumer price index. The analysis of effect on inflation rate, GDP and credit to private sector on consumer price index indicated a direct relation between the two variables. The implication is that with the increase in the consumer price index, the inflation rate, GDP and credit to private sector also goes up, whereas there is an inverse relationship of consumer price index with Broad money and net credit to Government.

RBI WORKING PAPER SERIES Inflation-Forecast Targeting For India: An Outline of the Analytical Framework (2016) in this paper a broad overview of the analytical under pinning's of FIT implementation was given. It was found that a credible monetary policy can bring about macro- economic stability by reducing the supply shocks to inflation. The core-QPM for India specific features revealed how it could be used for FIT implementation.

Bhavesh Salunkhe& Anuradha Patnaik (2017), in their study, ***THE IMPACT OF MONETARY POLICY ON OUTPUT AND INFLATION IN INDIA: A FREQUENCY DOMAIN ANALYSIS*** used the ***frequency domain causality approach*** developed by Lemmens et al. (2008), their purpose was to study the relationship of rates of monetary policy with inflation as well as between rates of monetary policy and production in India. They found that monetary policy officials were equally concerned about inflation as well as production/growth when deciding the policy. They established a bi-directional causality between policy rate and inflation and policy rate and production. While RBI implemented an inflation control policy the growth in the economy wash it, thus a balance needs to be struck between a tight monetary policy and the growth process. The researchers established the relationship between policy rate and inflation using both retail and wholesale inflation, separately.

Macroeconomic Outlook:

Monetary Policy Rates Outlook:

On 03/11/2012Cash Reserve Ratio was 4.25% it was reduced to 4.00% on 29/01/201, since then it is stable at 4.00%. While on 24/06/2017 Statutory Liquidity Ratio was 20.00% and it was reduced to 19.50% on 02/08/2017.

Reserve Ratios	**2017-18**	**2017-18**		**2018-19**	
	(1)	**Q 1 (2)**	**Q 2 (3)**	**Q 1 (4)**	**Q 2 (5)**
Cash Reserve Ratio %	**4.00**	**4.00**	**4.00**	**4.00**	**4.00**
Statutory Liquidity Ratio %	19.50	20.00	19.50	19.50	19.50

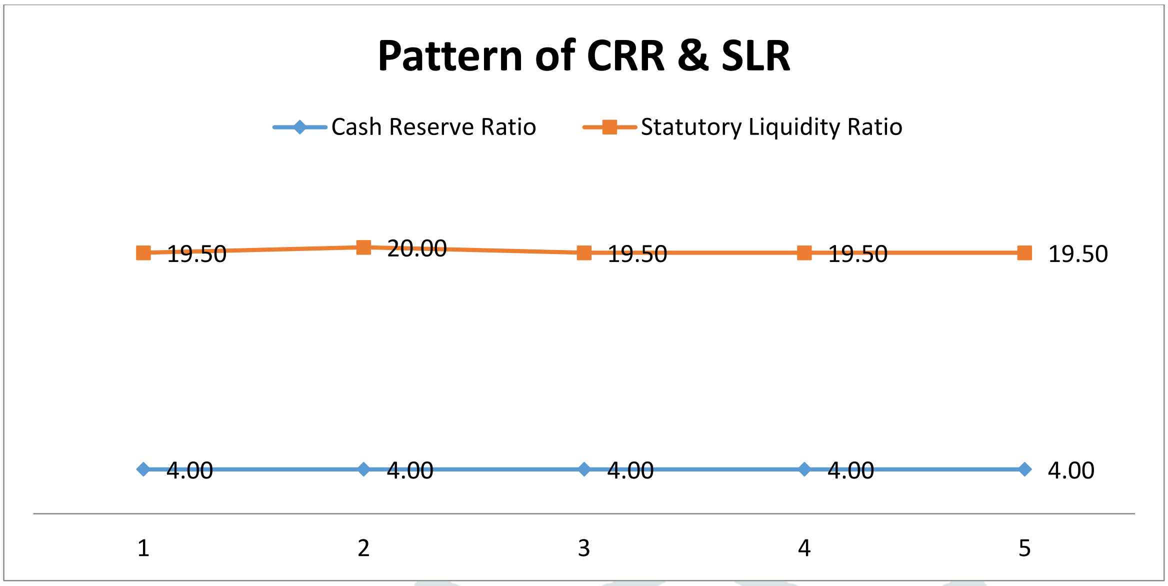

Fig. 1.4

Fig. 1.5

Before 02/08/2017, Repo Rate was fixed at 6.00%, it was increased to 6.25% on 06/06/2018 and to 6.50% on 01/08/2018. While before 04/10/2016, Reverse Repo Rate was 5.75%, it was increased to 6.00% on 06/04/2017 and on 02/08/2017 it was reduced to 5.75% again increased to 6.00% on 06/06/2018 and to 6.25% on 01/08/2018.

Interest Rates %	2017-18	2017-18		2018-19	
	(1)	(2) Q 1	(3) Q 2	(4) Q 1	(5) Q 2
Policy Repo Rate	6.00	6.00	6.00	6.50	6.50
Reverse Repo Rate	5.75	5.75	5.75	6.25	6.25

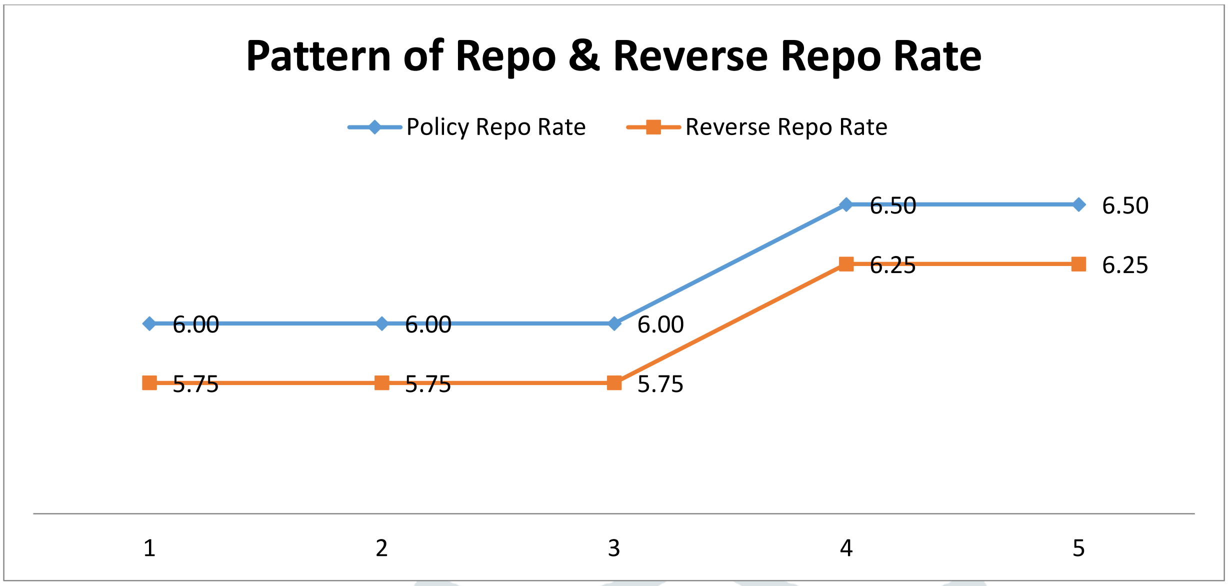

Fig. 1.6

On 06/04/2017 bank rate was 6.50%, it was reduced to 6.25% on 24/06/2017. On 14/10/2017 it was increased to 6.50% and to 6.75% on 01/08/2018.

Interest Rates %	2017-18	2017-18		2018-19	
	(1)	(2) Q 1	(3) Q 2	(4) Q 1	(5) Q 2
Bank Rate	6.25	6.25	6.25	6.75	6.75

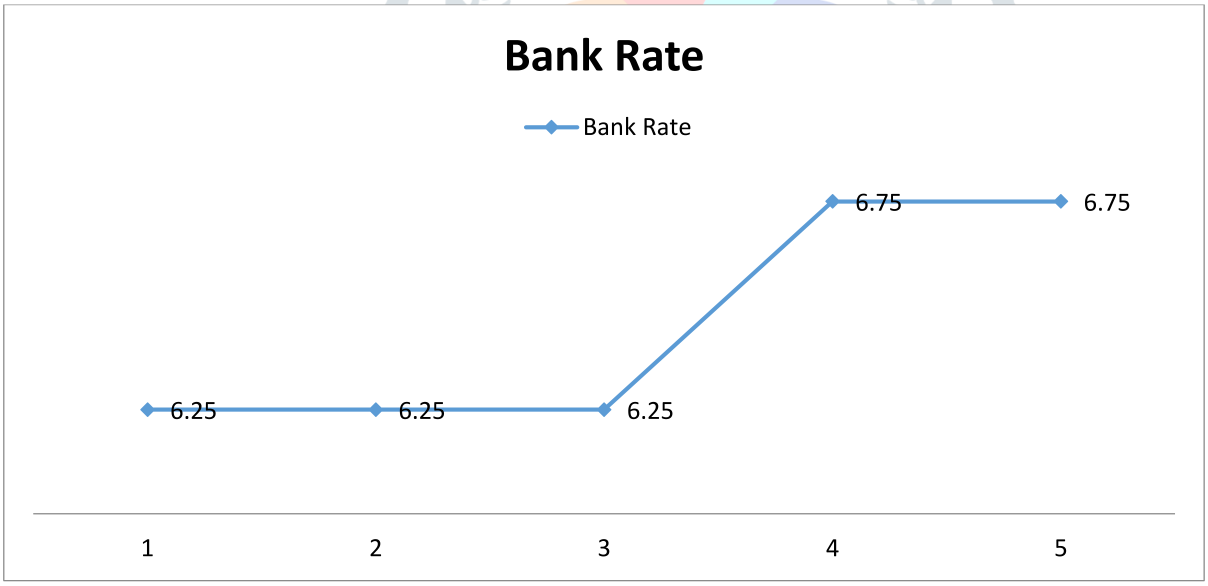

Fig. 1.7

On 02/08/2017 MSF was 6.25%, it was increased to 6.50% on 06/06/2018 and to 6.75% on 01/08/2018.

Interest Rates %	**2017-18**	**2017-18**		**2018-19**	
	(1)	(2) Q 1	(3) Q 2	(4) Q 1	(5) Q 2
Marginal Standing Facility (MSF) Rate	6.25	6.25	6.25	6.75	6.75

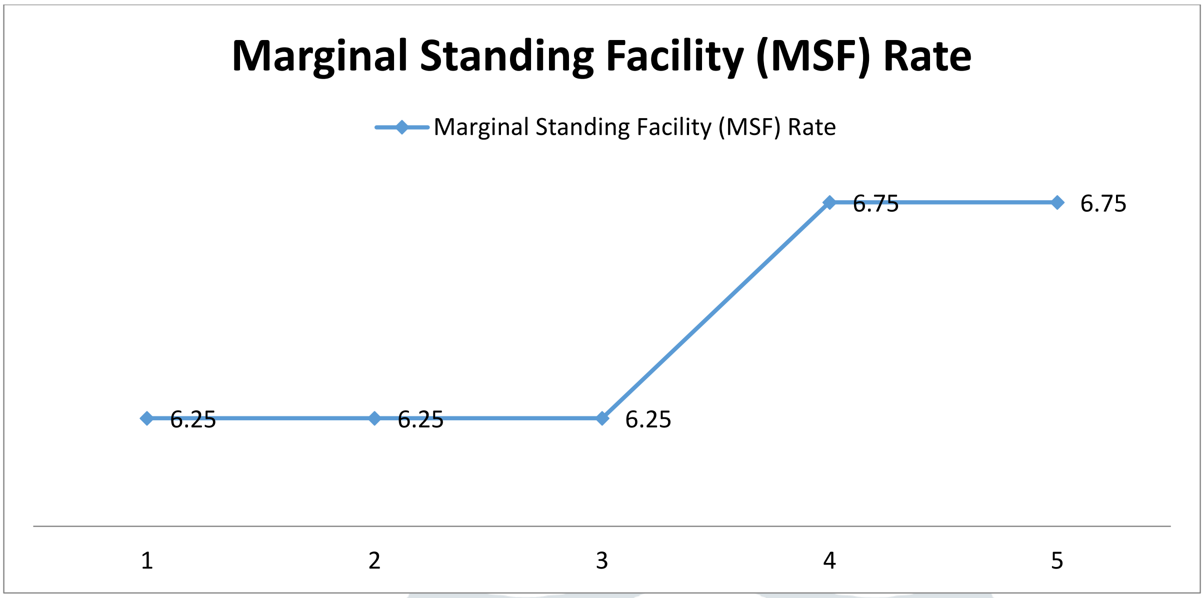

Fig. 1.8

Inflation Outlook:

Inflation Rates %	**2017-18**	**2017-18**		**2018-19**	
	(1)	(2) Q 1	(3) Q 2	(4) Q 1	(5) Q 2
All India Consumer Price Index	3.60	3.30	3.60	3.70	3.30

The above figure shows the continuous fluctuation in inflation rate based on combined CPI. It is moving in between 3.30% to 3.70%.

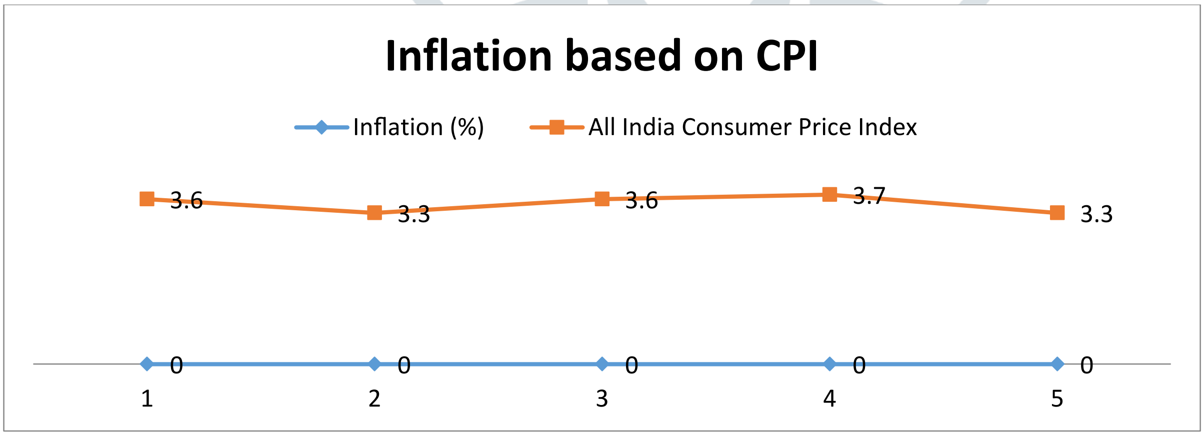

Fig. 1.9

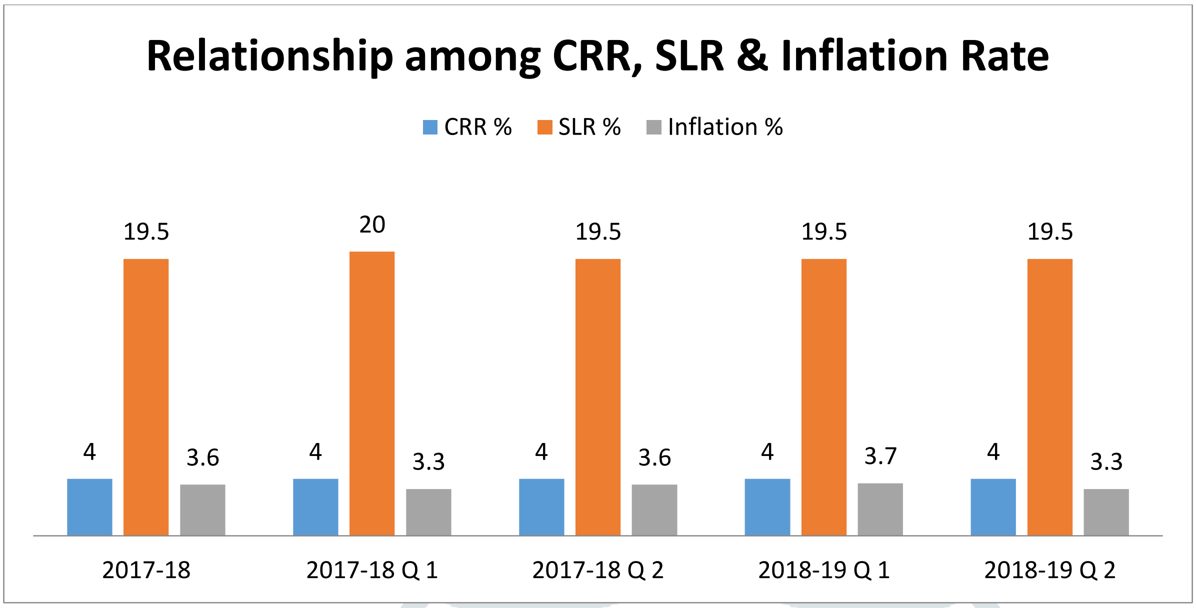

Fig. 1.10

The above figure shows the relationship among Cash Reserve Ratio, Statutory Liquidity Ratio & Inflation Rate. It reflects the positive impact of SLR on rate of inflation, while CRR is constant during this time period that is why nothing can be said about the effect of CRR.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.597614
R Square	0.357143
Adjusted R Square	-1.66667
Standard Error	0.20702
Observations	1

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	0.071429	0.014286	1.666667	#NUM!
Residual	3	0.128571	0.042857		
Total	8	0.2			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept							-1E-285	1.4E-285
All India Consumer Price Index							1.6E-261	1.6E-261
3.6							4E+176	-4E+176
3.3							4.7E-269	4.7E-269
3.6	22.1	1.938704	11.39937	0.001449	15.93018	28.26982	15.93018	28.26982
3.7	-0.71429	0.553283	-1.29099	0.28719	-2.47508	1.046509	-2.47508	1.046509

3.3

In this study the significance level is taken at 5% on using the statistical tool. The regression analysis shows that the P value is 0.001, which is less than alpha value 0.05. Therefore it can be concluded that SLR is having significant impact on inflation rate based on combined CPI.

Relationship among Repo, Reverse Repo Rate & Inflation Rate

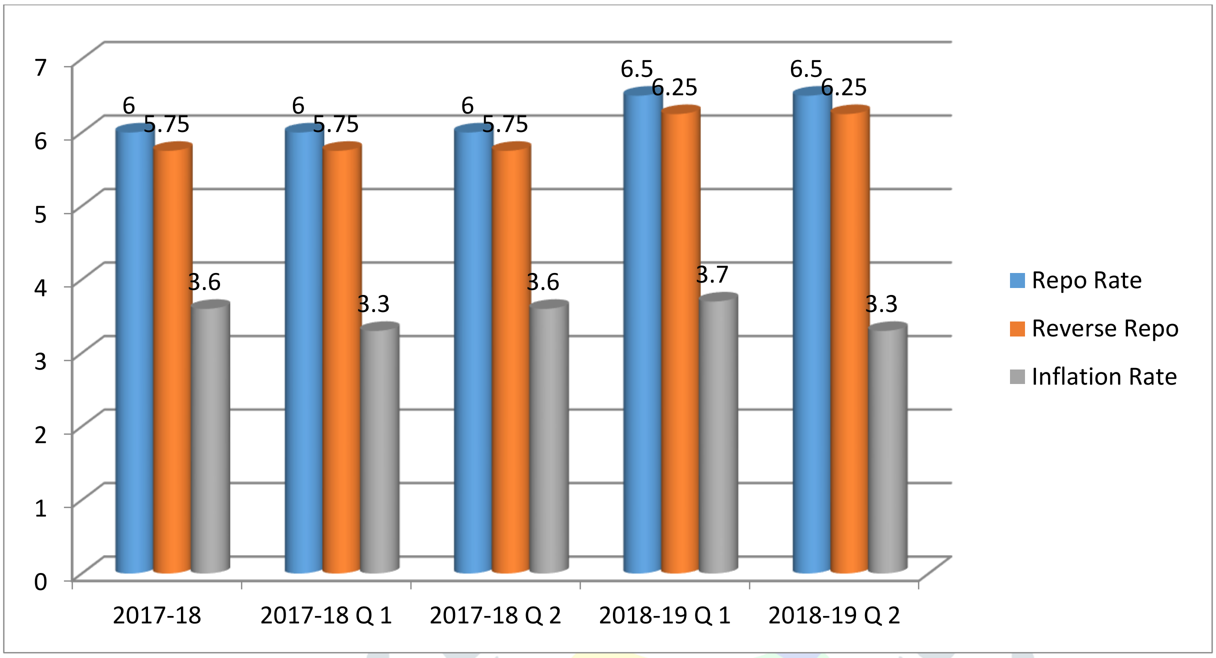

Fig. 1.11

The above figure shows the composite impact of Repo & Reverse Repo rate on inflation rate. This graphical presentation shows the repo and reverse repo rate are increased, it will affect inflation rate negatively.

Relationship between Bank Rate, MSF& Inflation Rate

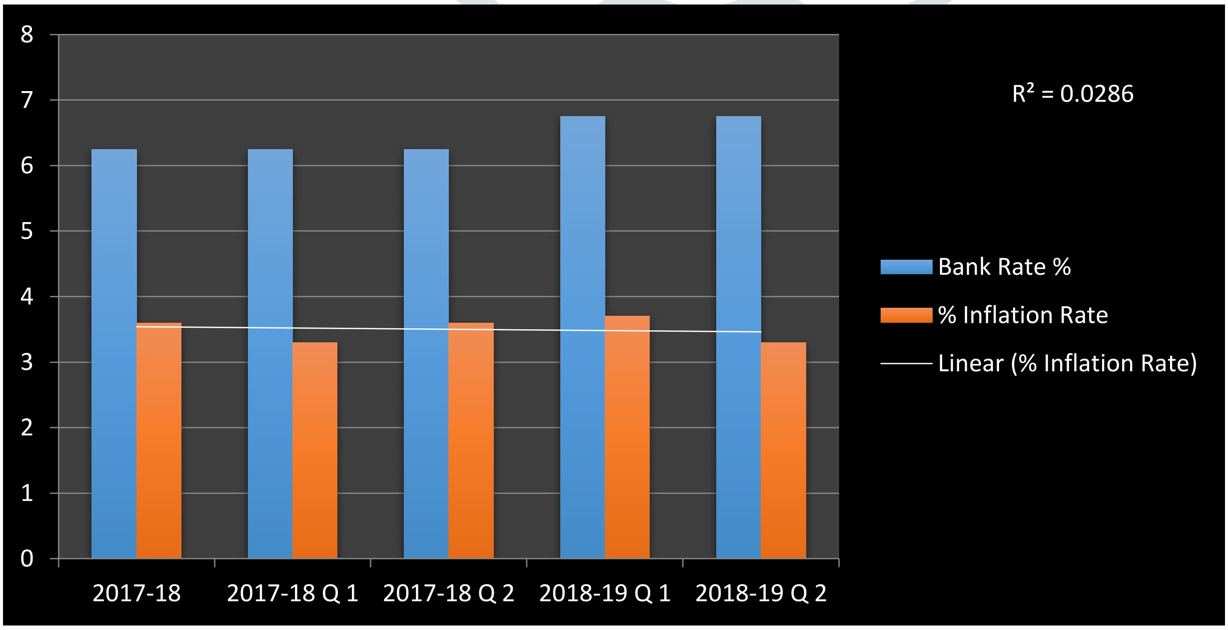

Fig. 1.12

The figure shows that any increase in bank rate will decrease in the rate of inflation.

Composite Effect of all instruments on inflation rate:

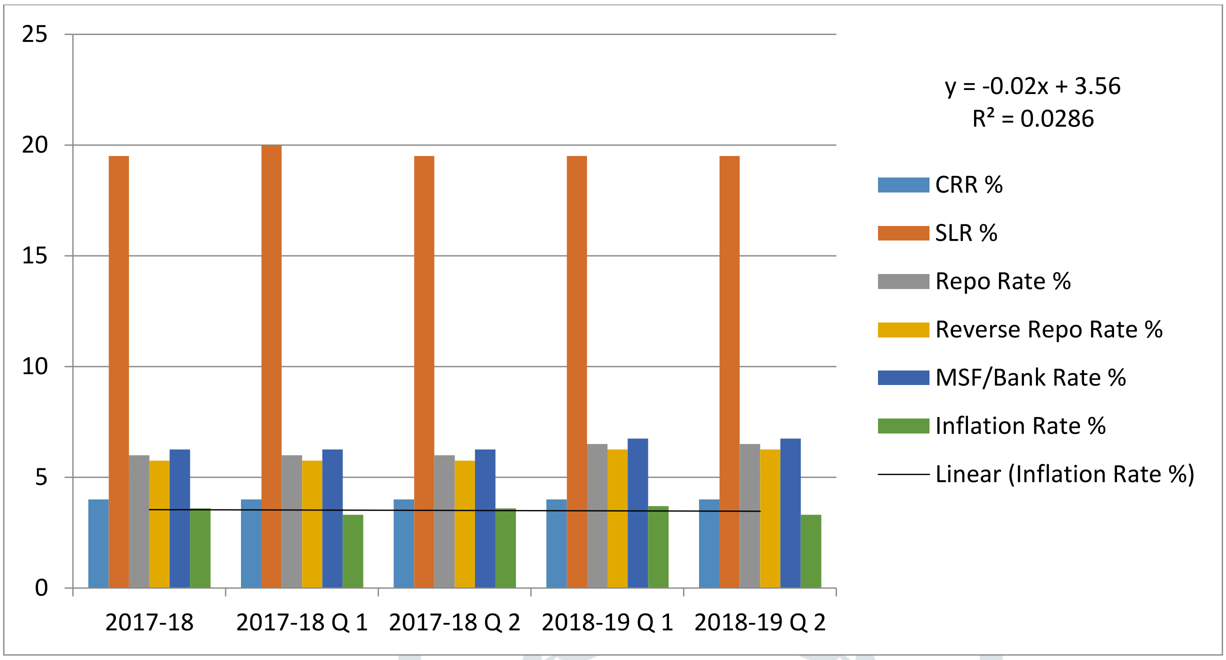

Fig. 1.13

The above figure shows that all policy rates and interest rates are positively related to inflation rate based on combined consumer price index. It refers that any change in any of the all instruments will affect the rate of inflation, which may be positive or negative.

Conclusion:

The impact of monetary policy measures and rates on bringing about price stability/reducing inflation has been analysed in this study. After analysing all the factors affecting Monetary policy as above, it was found that in the short-run (2018 & 2019), most of the monetary policy rates are responsible for maintaining price stability in India except for Cash Reserve Ratio which had no impact on inflation. It is suggested that the Cash Reserve Ratio may further increased from 4% to be effective in inflationary conditions.

The study found that Statutory Liquidity Ratio has an inverse relationship with inflation rate based on Combined Consumer Price Index, meaning there by that if the Statutory Liquidity Ratio is increased it will help the Government in reducing inflation. It may thus be deduced that all the instruments of monetary policy have a composite effect in controlling the inflation rate.

References:

- Mark Bils, P. J. (February 2009). *Reset Price Inflation and the Impact of Monetary Policy Shocks* .
- *Jhingan, M. Money,Banking, International Trade & Public finance-Monetary policy.*
- *Publication, R. (2017). Monetary policy . www.rbi.org.in.*

- Iyiola, R. O. (August 2014). *THE EFFECT OF MONETARY POLICY ON CONSUMER PRICE INDEX* . www.ijiset.com.

- *WPS (DEPR): 07 /2016 RBI WORKING PAPER SERIES; Inflation-Forecast Targeting For India: An Outline of the Analytical Framework by Jaromir Benes, Kevin Clinton, Asish Thomas George, Joice John, Ondra Kamenik, Douglas Laxton, Pratik Mitra, G.V. Nadhanael, Hou Wang & Fan Zhang*

- Patnaik, B. S. (March 2017). *THE IMPACT OF MONETARY POLICY ON OUTPUT AND INFLATION IN INDIA: A FREQUENCY DOMAIN ANALYSIS.* ECONOMIC ANNALS.

- https://www.businesstoday.in/sectors/banks/what-is-crr-slr-repo-rate-reverse-repo-rate/story/234473.html
- https://economictimes.indiatimes.com/definition/marginal-standing-facility
- https://www.businesstoday.in/sectors/banks/what-is-repo-rate-crr-slr-how-do-they-affect-you/story/261417.html
- CPI-Rural, Urban, Combined (All India), base:2012=100, https://dbie.rbi.org.in/DBIE/dbie.rbi?site=home
- Major Monetary Policy Rates & reserve Requirements-BAN RE*PO & MSF) Rates, CRR & SLR, https://dbie.rbi.org.in/DBIE/dbie.rbi?site=home*