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Monetary policy transmission through banking channel: is India ready for external benchmarking?

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Abstract

Objectives: This work assesses the effectiveness of various internal as well as external benchmarking systems with respect to transmission of RBI's monetary policy rates to bank lending rates in India.
Methods/Analysis: This study has used the database on Indian Economy published by Reserve Bank of India (RBI). A number of independent variables, including the lagged variants of some of them, have been used to perform the multivariate regression. Proper segregation of data has also been done to account for the impact of the major economic event of November 2016 namely 'demonetisation of higher denomination currency notes' in India.
Findings: Though this study finds that, barring the highly ineffective Benchmark Prime Lending Rate (BPLR) system, a significant progress has been made by Reserve Bank of India (RBI) in monetary policy transmission first through Base Rate System and then through Marginal Cost of funds based Lending Rate (MCLR) System. However, this paper finds that India is not yet ready to adopt the external benchmarking of lending rates, as proposed by an internal study group of RBI in 2017, primarily due to following reasons (a) Volatility issue of the proposed benchmark rates; (b) Lack of volumes, depth and maturity making them susceptible to manipulation; (c) Infeasibility of linking liability side and unilateral linking of asset side may hit banks' profitability badly; (d) Manipulation through spreads would still be possible; (e) Possibility of draconian centralization of powers in the hands of RBI may be dangerous for the economy; (f) Possibility of lobbying by banking industry to influence RBI cannot be ruled out; and (g) It would be against the spirit of liberalization.
Application: This paper not only attempts to give a perspective with respect to prevailing and proposed systems of monetary policy transmission, but also encourages further research, so as to facilitate better policy formulation by RBI, which is evaluating all possible options, including external benchmarking of lending rates, in quest of perfecting the monetary policy transmission in India.
Keywords: Monetary Policy Transmission, Interest Rate Pass-through, MCLR, External Benchmark Rate.
JEL Classification: E43, E50, E52, E58

1. Introduction

In 1994, the Reserve Bank of India (RBI) had deregulated the lending rates in order to give a free hand to banks, wherein the banks were required to declare their Prime Lending Rates (PLRs) for credits above Rupees 0.2 million, but this system fell short of attaining the desired objectives of having transparent and competitive lending rate regime as it resulted into varied rates of PLRs and the spreads thereupon. Moreover, the PLRs were not guided by the policy rates of RBI, thereby impacting the transmission. With an objective to correct the situation, RBI introduced a new system called Benchmark Prime Lending Rate (BPLR) in April 2003 whereby the banks were advised to compute their benchmark rates based on their cost of funds, operating expenses and a reasonable profit margin. It was expected that the BPLR would be the rate at which banks would grant loans to their most credit-worthy or prime customers and the lending rates of all other customers would be linked to this BPLR with some spread over and above BPLR depending upon their creditworthiness to account for the inherent risk. However, the BPLR system turned out to be a great disaster and failed to achieve the objectives of bringing transparency and ensuring effective transmission of interest rates, simply because there was no restriction on the banks to lend below BPLR. The banks were very quick in increasing their BPLR with any increase in policy repo rate, but did not show the same promptness when there was a decrease in the policy repo rate.

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This resulted into highly exorbitant lending rates for all the existing borrowers of the banks, while banks could easily lure the new customers by offering them rates below BPLR. In fact, by September 2008, sub-BPLR lending had risen to as high as 77% of total lending (RBI, 2017), thereby defeating the very purpose of having this benchmark rate. A number of unsuspecting borrowers, who had availed loans linked to BPLR, at very competitive rates to begin with, ended up paying highly exorbitant rates, due to upwardly moving BPLR. What is more, many of these borrowers never bothered to check the effective interest rates being charged to them, during the course of repayments, and felt cheated when they realised the huge outstanding principal towards the end of the tenure of their loans. The author of this paper, having served as a banker for around 10 years, had himself witnessed several cases of such unsuspecting borrowers, who had ended up paying highly exorbitant lending rates due to sheer lack of awareness about the prevailing system & movements of BPLR.

Having realized the loopholes in the system of BPLR, RBI introduced a new system of Base Rate in July 2010, which, to a large extent, was successful in bringing the transparency in the lending rate regime and in addressing the issue of the anomalies existing between the rates being charged to existing borrowers and the new borrowers, simply because banks were not allowed to lend below the Base Rate, except for certain specific categories like loans granted to bank employees, or loans granted under government subsidised schemes etc. However, the Base Rate system was also not very effective in ensuring the transmission of Policy Rate to the lending rates, because of the fact that banks had the freedom to compute their Base Rates either on the basis of their average cost of funds or on the basis of their marginal cost of funds, and since most banks chose the former, the transmission of the changes in RBI's policy repo rate, which had very little impact on the overall average cost of funds of the bank, was not very effective. In view of the imperfect transmission even during Base Rate regime, RBI introduced yet another system called Marginal Cost of funds based Lending Rate (MCLR) system in April 2016, wherein the banks were mandated to compute their MCLR based on their marginal cost of funds and not average cost of funds. Moreover, unlike Base Rate system wherein there was no prescribed frequency for banks to review their Base Rates, under the MCLR system, banks were mandated to review & announce their MCLRs every month, so that any change in the Policy Repo Rate during previous month will get incorporated in the MCLR computed in the next month. Further, unlike Base Rate system, wherein the risk associated with different tenures were added over and above Base Rates in the form of tenure premium, the MCLR system had in-built tenure premium leaving lesser room for banks to manipulate the final effective interest rates by playing with spreads. However, owing to the provision of in-built tenure premium, the banks were required to publish multiple MCLR for the following maturities e.g. Overnight MCLR, One-month MCLR, Three-months MCLR, Six-months MCLR, One-year MCLR and MCLR for any other maturity which the bank considered fit.

Although the base rate and MCLR systems have brought about significant improvements in the transparency in lending rate regime and transmission of policy rates, but it has still not attained the desired level of perfection. It is for this reason that RBI had constituted one internal study group in July 2017, to review the existing system of MCLR and suggest the ways to further improve the transmission. The Internal Study Group has submitted its report in September 2017 wherein they have recommended for external benchmarking of lending rates, in order to have uniformity across all the banks, leaving little scope for banks to manipulate the benchmark rates. They had considered 13 possible candidates for external benchmarking and had finally zeroed in on three suitable candidates namely RBI's Policy Repo Rate, Certificate of Deposit Rate and Treasury Bills Rate to act as external benchmark rate. However, the internal study group of RBI has also acknowledged that none of these shortlisted rates are perfect, and suffer from a number of issues like volatility and the lack of sufficient volume and depth of the secondary market, thereby making them susceptible to manipulation [1].

Reserve Bank of India (RBI) (2014) in its 'Report of the Expert Committee to Revise and Strengthen the Monetary Policy Framework' has mentioned that the interest rate channel is playing the most dominant role in the monetary policy transmission, as compared to the other channels of transmission like credit channel, exchange rate channel and asset price channel. The expert committee also felt that the benchmark rate should be determined based on the interest rates of not more than six months, so as to ensure quicker transmission. Moreover, the expert committee also felt the need of a market-driven external benchmark rate, but the role of RBI should be restricted to that of supportive only. The committee had also recommended that there is a need to rationalise the Statutory Liquidity Ratio (SLR) requirements, and the same should be brought down to the level of Liquidity Coverage Ratio prescribed as per Basel-III norms.

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Further, this committee has also mentioned that the effects of policy repo rate changes are felt on output changes with a lag of two to three quarters and on inflation with a lag of three to four quarters, and the effects persist for a period of 8-12 quarters [2]. Reserve Bank of India (RBI) (2017) in its 'Report of the Internal Study Group to Review the Working of the Marginal Cost of Funds Based Lending Rate System' has felt that the Marginal Cost of funds based Lending Rate (MCLR) introduced in 2016 has also fell short of its objective of effective transmission of monetary policy. The internal study group has felt the need for external benchmarking, and accordingly evaluated 13 possible candidates for external benchmarking and zeroed in on three of them namely, policy repo rate, treasury bill rate, and certificate of deposit rates as relatively better options to be considered for external benchmarking, however, with an acknowledgment of the fact that none of these shortlisted external benchmark rates are perfect and suffer with some shortfalls like low volume, high volatility and susceptibility to manipulation etc.

The internal study group had invited suggestions from all the stakeholders, and as expected, while the public-at-large, has supported the introduction of external benchmarking, the banking industry has raised its concerns citing a number of issues like profitability concern, bearing of interest rate risk, inability to align banks' liability side to any benchmark due to prevalence of other investment opportunities for depositors, which are offering them better post-tax returns etc [3] has examined the asymmetric pattern of monetary policy transmission in India and has concluded that unanticipated policy rate changes result in asymmetric transmission for a period less than eight quarters and attains symmetry after that [4] have investigated the impact of heterogeneity of banks in terms of their lending contract terms with their customers and have suggested that transmission of monetary policy stance will have varied impact due to imperfections in the market, especially with respect to unsecured loans [5]. In analyzed the regional asymmetries in monetary policy transmission in Greek regions using Vector Auto regression model, and concluded that the cross-regional asymmetries in Greek regions may be attributed to the varying interest rate sensitivities of different sectors like Agriculture, Forestry & Fishing, Construction, Manufacturing and Financial Services etc [6] through Vector Auto regression Model, observed that monetary policy changes have heterogeneous effects on different sectors in Indian economy [7]. This paper investigates into the issue and tries to evaluate the effectiveness of existing system of internal benchmarking of lending rates, and also assesses whether or not, India should adopt external benchmarking.

2. Methodology

This research paper has used the database on Indian economy published by Reserve Bank of India (RBI). In [8] the monthly, quarterly and annual data, as taken from RBI's data warehouse are modified, primarily for calculating weighted averages, as per the requirement of further analysis. For instance, if different rates of Statutory Liquidity Ratio (SLR) prevailed in one year for different time periods, then the weighted average of the same has been calculated by the author, before tabulating the same for further analysis. Some of the variables like 'Prevalence of Base Rate System' and 'Prevalence of MCLR System' have been used as dummy variables, in order to assess their impact on the monetary policy transmission. These dummy variables, along with some other independent variables, including the lagged variants of some of them [9-11], have been used to perform the multivariate regression, with an objective to determine the factors influencing average lending rates as well average deposit rates. The analysis has been performed both on the annual as well as monthly data to ascertain the exact impact of different factors depending upon their frequencies of occurrence. While understanding the impact of monetary policy transmission, the care has also been taken to account for the impact of one major economic event namely 'demonetisation of higher denomination currency notes' as announced by government of India during November 2016, and the data has been segregated & analysed accordingly.

3. Monetary policy transmission through internal benchmarking: an empirical analysis

3.1. Factors influencing average lending rate

An iterative step-by-step multivariate analysis was carried out in order to determine the factors influencing the dependent variable viz. Annual 'Average Lending Rates' of scheduled commercial banks of India for the period 2002-03 to 2017-18 using the data as tabulated in Table 1.

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To begin with, a number of independent variables were taken into consideration, viz. 'Weighted Average Cash Reserve Ratio', 'Weighted Average Statutory Liquidity Ratio', 'Average Deposit Rate', 'Weighted Average Repo Rate' and its one year lagged variant 'Weighted Average Repo Rate (y-1)'. The data taken from RBI website were used for computing the above-mentioned average rates, before tabulating the same for carrying out the multiple regressions. Further, two dummy variables namely 'Prevalence of Base Rate System' and 'Prevalence of MCLR System' were also included in the initial multiple regression model. Since MCLR was introduced from April 01, 2016 the period 2016-17 and 2017-18 were assigned a value of one and the periods before that were assigned the value of zero. However, since Base Rate was introduced with effect from July 01, 2010 i.e. after the lapse of first quarter of the year 2010-11, the value of 0.75 was assigned to this financial year for this particular independent variable as the base rate system remained in effect only for the last three quarters of FY 2010-11. All the financial years subsequent to 2010-11 were assigned the value of one and the years prior to that were assigned zero value due to existence and non-existence of Base Rate System respectively.

Table 1. Annual average interest rates of all the scheduled commercial banks of India and the key factors influencing the same

	Rates in percentage terms						Dummy Variables	
Financial Year	Average Lending Rate [LENDING]	Average Deposit Rate [DEPOSIT]	Weighted Average Repo Rate [REPO]	Weighted Average Repo Rate (y-1) [OYL_REPO]	Weighted Average CRR [CRR]	Weighted Average SLR [SLR]	Prevalence of Base Rate System [BASE]	Prevalence of MCLR System [MCLR]
2017-18	7.93	6.42	6.00	6.25	4.00	19.62	1.00	1.00
2016-17	7.93	6.73	6.25	6.84	4.00	20.70	1.00	1.00
2015-16	9.50	7.26	6.84	7.70	4.00	21.50	1.00	0.00
2014-15	10.13	8.54	7.70	7.71	4.00	21.78	1.00	0.00
2013-14	10.13	8.91	7.71	7.72	4.00	23.00	1.00	0.00
2012-13	9.98	8.83	7.72	8.18	4.27	23.00	1.00	0.00
2011-12	10.38	9.04	8.18	6.12	5.37	24.00	1.00	0.00
2010-11	8.88	8.58	6.12	4.99	6.00	24.00	0.75	0.00
2009-10	13.38	6.96	4.99	7.06	5.53	25.00	0.00	0.00
2008-09	14.13	8.25	7.06	7.75	6.67	24.00	0.00	0.00
2007-08	14.00	8.50	7.75	7.27	7.28	25.00	0.00	0.00
2006-07	13.50	8.13	7.27	6.36	5.40	25.00	0.00	0.00
2005-06	11.50	6.58	6.36	6.00	5.00	25.00	0.00	0.00
2004-05	10.63	5.92	6.00	6.00	4.88	25.00	0.00	0.00
2003-04	10.63	5.13	6.00	7.41	4.50	25.00	0.00	0.00
2002-03	11.13	5.63	7.41	8.06	4.79	25.00	0.00	0.00
Weighted Average Repo Rate (y-1) : Weighted Average Repo Rate of previous year OR One Year Lagged Weighted Average Repo Rate [OYL_REPO]								

Source: Author's work based on the data compiled from the website www.rbi.org.in

As a consequence of iterative regression process carried out on the annual data given in Table 1, some of the independent variables were eliminated one-by-one, either due to poor correlation with dependent variable 'Average Lending Rate [LENDING]', or due to high multicollinearity with other independent variables, and finally only three independent variables namely 'Average Deposit Rate [DEPOSIT]', 'Prevalence of Base Rate System [BASE]', and 'Weighted Average Repo Rate (y-1) [OYL_REPO]' were found to have significant influence in the determination of annual Average Lending Rates, with Coefficient of Determination i.e. Adjusted R^2 of 0.93 and F-Statistic value of 57.06 with a very good significance level (P = 0.00). The results of the t-test for each of these three independent variables as shown in Table 2 also demonstrate significant evidence in support of their correlation with dependent variable.

Table 2. Multiple regression results for dependent variable 'Average Lending Rate' [LENDING]

	Independent variables		
	Average Deposit Rate [DEPOSIT]	Prevalence of Base Rate System [BASE]	Weighted Average Repo Rate (y-1) [OYL_REPO]
t-Statistic	7.32	-12.65	3.13
P-value	0.00	0.00	0.01

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The regression equation as derived from this multivariate model may be expressed as under: [LENDING] =2.39+[0.93]*[DEPOSIT]–[4.13]*[BASE]+[0.50]*[OYL_REPO] ..Equation: 01

The Equation: 01 indicates the strong inverse relationship between the Prevalence of Base Rate System and the Average Lending Rate, which, in turn, signifies the critical role played by Base Rate System in achieving the objective of effective transmission of policy rate to the banks' lending rates. The other independent variables, which were eliminated from the final regression model due to the problem of multicollinearity, were also found to have strong correlation with the dependent variable 'Average Lending Rate', with their correlation coefficient being as strong as 0.74 with 'Weighted Average CRR', 0.72 with 'Weighted Average SLR' and -0.57 with 'Prevalence of MCLR'.

The MCLR system which was introduced in April 2016 with an objective to bring about further improvement over the base rate system, did achieve some marginal improvement in the transmission of policy rate. However, the multivariate regression carried out on annual dataset did not show the clear picture of the correlation of 'Prevalence of MCLR System' with 'Average Lending Rate', as it had remained in existence for only two years out of the total period of study. Therefore, in order to assess the actual impact of MCLR system, along with some other important variables, month-wise data were compiled as tabulated in Table 3.

Table 3. Month-wise average interest rates of all scheduled commercial banks of India and the factors influencing the same

Period	WALR-O (All SCBs)	WALR-F (All SCBs)	WADTDR (All SCBs)	Prevalence of MCLR system	Statutory Liquidity Ratio	Policy Repo Rate	Period	WALR-O (All SCBs)	WALR-F (All SCBs)	WADTDR (All SCBs)	Prevalence of MCLR System	Statutory Liquidity Ratio	Policy Repo Rate
Mar-2018	10.16	9.34	6.67	1.00	19.50	6.00	Aug-2015	11.60	10.97	8.27	0.00	21.50	7.25
Feb-2018	10.25	9.55	6.60	1.00	19.50	6.00	July-2015	11.60	10.98	8.35	0.00	21.50	7.25
Jan-2018	10.22	9.43	6.54	1.00	19.50	6.00	Jun-2015	11.61	11.03	8.43	0.00	21.50	7.25
Dec-2017	10.27	9.41	6.53	1.00	19.50	6.00	May-2015	11.68	11.06	8.49	0.00	21.50	7.50
Nov-2017	10.36	9.56	6.50	1.00	19.50	6.00	Apr-2015	11.73	11.23	8.51	0.00	21.50	7.50
Oct-2017	10.43	9.48	6.54	1.00	19.50	6.00	Mar-2015	11.76	11.07	8.57	0.00	21.50	7.50
Sep-2017	10.45	9.53	6.65	1.00	20.00	6.00	Feb-2015	11.86	11.28	8.59	0.00	21.50	7.75
Aug-2017	10.59	9.53	6.69	1.00	20.00	6.00	Jan-2015	11.85	11.22	8.61	0.00	22.00	7.75
July-2017	10.59	9.80	6.75	1.00	20.00	6.25	Dec-2014	11.84	11.45	8.64	0.00	22.00	8.00
June-2017	10.67	9.50	6.81	1.00	20.00	6.25	Nov-2014	11.90	11.51	8.68	0.00	22.00	8.00
May-2017	10.66	9.84	6.86	1.00	20.50	6.25	Oct-2014	11.91	11.49	8.68	0.00	22.00	8.00
Apr-2017	10.73	9.81	6.92	1.00	20.50	6.25	Sep-2014	11.90	11.52	8.70	0.00	22.00	8.00
Mar-2017	10.80	9.74	6.97	1.00	20.50	6.25	Aug-2014	11.94	-	8.75	0.00	22.00	8.00
Feb-2017	10.96	9.80	7.06	1.00	20.50	6.25	Jul-2014	11.98	-	8.76	0.00	22.50	8.00
Jan-2017	11.01	9.93	7.14	1.00	20.50	6.25	Jun-2014	12.10	-	8.73	0.00	22.50	8.00
Dec-2016	11.07	10.12	7.19	1.00	20.75	6.25	May-2014	12.11	-	8.73	0.00	23.00	8.00
Nov-2016	11.12	10.22	7.32	1.00	20.75	6.25	Apr-2014	12.11	-	8.78	0.00	23.00	8.00
Oct-2016	11.09	10.48	7.38	1.00	20.75	6.25	Mar-2014	12.11	-	8.79	0.00	23.00	8.00
Sept-	11.13	10.3	7.41	1.00	21.00	6.50	Feb-	12.16	-	8.75	0.00	23.00	8.00

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2016		5					2014						
Aug-2016	11.17	10.40	7.44	1.00	21.00	6.50	Jan-2014	12.17	-	8.76	0.00	23.00	8.00
July-2016	11.19	10.39	7.48	1.00	21.00	6.50	Dec-2013	12.18	-	8.78	0.00	23.00	7.75
June-2016	11.19	10.43	7.52	1.00	21.25	6.50	Nov-2013	12.19	-	8.76	0.00	23.00	7.75
May-2016	11.22	10.61	7.59	1.00	21.25	6.50	Oct-2013	12.17	-	8.84	0.00	23.00	7.50
Apr-2016	11.23	10.59	7.64	1.00	21.25	6.50	Sep-2013	12.25	-	8.91	0.00	23.00	7.50
Mar-2016	11.20	10.47	7.73	0.00	21.50	6.75	Aug-2013	12.17	-	8.81	0.00	23.00	7.25
Feb-2016	11.31	10.54	7.75	0.00	21.50	6.75	Jul-2013	12.13	-	8.70	0.00	23.00	7.25
Jan-2016	11.30	10.67	7.78	0.00	21.50	6.75	Jun-2013	12.12	-	8.73	0.00	23.00	7.25
Dec-2015	11.31	10.59	7.83	0.00	21.50	6.75	May-2013	12.11	-	8.68	0.00	23.00	7.25
Nov-2015	11.36	10.69	7.86	0.00	21.50	6.75	Apr-2013	12.14	-	8.76	0.00	23.00	7.50
Oct-2015	11.35	10.78	7.91	0.00	21.50	6.75	Mar-2013	12.19	-	8.81	0.00	23.00	7.50
Sep-2015	11.53	10.77	8.03	0.00	21.50	7.25							

Based on the month-wise data compiled in Table 3, the correlation coefficients were calculated for weighted average lending rates with other variables like 'Weighted Average Domestic Term Deposit Rate' (WADTDR), 'Prevalence of MCLR', 'Statutory Liquidity Ratio' (SLR) and 'Policy Repo Rate'. Factors like 'Cash Reserve Ratio' (CRR) and 'Prevalence of Base Rate System' were not considered, as there was no change in these parameters during the period of study i.e. April 2013 to March 2018. It is pertinent to note here that in the month of November 2016, government of India had announced demonetisation of higher denomination notes of ₹500 and ₹1000. This step had multi-fold and long-lasting impact on the overall economy, and one major impact was the huge inflow of cash at all the bank branches, which suddenly increased the liquidity in the entire banking system. In order to offload that excess liquidity, banks had to keep their lending rates low, irrespective of the monetary policy stance of RBI. The reduction in the bank lending rates post-demonetisation, therefore, cannot be attributed entirely to policy rate reduction or any other RBI initiative, as it was also because of the excess liquidity created in the banking system due to demonetisation. The study periods have been segregated accordingly in Table 4, of which the correlation coefficients computed for the periods exclusive of post-demonetisation period, therefore, provide a relatively better picture as far as the impact due to the changes in monetary policy is concerned.

Further, correlation coefficients calculated separately for 'Weighted Average Lending Rate – Outstanding Loans' (WALR-O) and 'Weighted Average Lending Rate – Fresh Loans' (WALR-F) only endorse and reconfirm the widely held belief that the transmission of Policy Repo Rate is much stronger in case of Fresh loans as compared to Outstanding loans, simply because banks are more keen in attracting the new customers and are more averse in passing-on the benefits to their existing customers as that would hit the net interest margins in their existing portfolios quite adversely. It can be inferred from the Table 4 that the prevalence of MCLR system, over and above the prevalent Base Rate system, has also had quite an impact, if not as strong as the Base Rate system, on making further improvements in the transmission of monetary policy. Moreover, the Statutory Liquidity Ratio (SLR) and Weighted Average Domestic Term Deposit Rates (WADTDR), which are integral part of the cost of capital for the banks, are also found to have quite a strong direct relationship with the Weighted Average Lending Rates.

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Table 4. Correlation coefficients of month-wise weighted average lending rates with other key factors

Period	Type of Lending Rate	WADTDR (All SCBs)	Prevalence of MCLR System	Statutory Liquidity Ratio	Policy Repo Rate
May-13 to March-18 (i.e. including post-demonetization period)	WALR-O	0.985	-0.848	0.973	0.918
May-13 to Oct-16 (i.e. excluding post-demonetization period)	WALR-O	0.968	-0.658	0.927	0.841
Sept-14 to March-18 (i.e. including post-demonetization period)	WALR-F	0.985	-0.822	0.950	0.942
Sept-14 to Oct-16 (i.e. excluding post-demonetization period)	WALR-F	0.965	-0.646	0.840	0.969
WALR-O : Weighted Average Lending Rate – Outstanding Loans; WALR-F: Weighted Average Lending Rate – Fresh Loans; WADTDR: Weighted Average Domestic Term Deposit Rate; SCBs: Scheduled Commercial Banks; MCLR: Marginal Cost of funds based Lending Rate					

Source: Author's work based on the data compiled from the website www.rbi.org.in

3.2. Factors influencing average deposit rate

The annual average deposit rates and the weighted average repo rates, as given in Table 1, are moderately correlated with a correlation coefficient of 0.63, which only suggests that average deposit rates, unlike average lending rates, are not driven as much by the changes in the policy repo rates. This is because of the fact that Banks have to face a very strong competition from the various non-banking investment options, especially mutual funds, which are offering much better returns to the investors as compared to the net returns received from the bank fixed deposits after deduction of taxes.

The simple linear regression as derived from the annual data given in Table 1 at a significance level of 0.01 can be stated as under – [DEPOSIT] = 1.25 + [0.91]*[REPO] …… Equation: 02

3.3. Transmission of policy repo rate to lending and deposit rates

The interest rate changes have been summarized in Table 5 so as to analyze and understand the extent of monetary policy rate transmission through 'Weighted Average Lending Rates – Outstanding Loans' (WALR-O), 'Weighted Average Lending Rates – Fresh Loans' (WALR-F), and 'Weighted Average Domestic Term Deposit Rates' (WADTDR) for public sector banks, private sector banks, foreign banks as well as all scheduled commercial banks. The total period of study i.e. April 2013 to March 2018 has been grouped into following four categories:

1. April 2013 to September 2014 – The data were available only for WALR-O and not for WALR-F for this period
2. October 2014 to March 2016 – The period prior to introduction of MCLR
3. April 2016 to October 2016 – The period post introduction of MCLR and prior to demonetisation
4. November 2016 to March 2018 – The period post demonetization

Firstly, it can be observed from Table 5, that the overall transmission of policy repo rates has been less than perfect among all kinds of lending and deposit interest rates. However, the reduction in lending rates both Fresh and outstanding as well as deposit rates have closer proximity with the reduction in the policy repo rates with a lag of 2.5 quarters, which is calculated by simply taking an average of two-quarters lagged and three-quarters lagged policy rates. In other words, we can infer that the policy repo rates are transmitted roughly to lending and deposit rates with a lag of around 2.5 quarters.

Secondly, the transmission of policy repo rate is better in case of Fresh Loans, as compared to outstanding loans, especially before the introduction of MCLR. However, this gap has narrowed down considerably post implementation of base rate system.

Thirdly, the transmission was better in case of private sector banks even before the introduction of MCLR, as they had already fallen in line post introduction of base rate system, and it is primarily public sector banks, which have improved the transmission post MCLR system.

Fourthly, the reduction in lending rates has been more than the reduction in the policy rates post-demonetization, which indicates that it is not just the monetary policy stance, but the other factors like liquidity and market forces, which drive the lending rates more competitive.

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Table 5. Transmission from the policy repo rate to banks' lending and deposit rates

(Variation in percentage points)														
Period	Change in Policy Repo Rate	Change in Policy Repo Rate with a lag of 2.5 quarters	Change in WALR-O (Public Sector Banks)	Change in WALR-O (Private Sector Banks)	Change in WALR-O (Foreign Banks)	Change in WALR-O (All Scheduled Commercial Banks)	Change in WALR-F (Public Sector Banks)	Change in WALR-F (Private Sector Banks)	Change in WALR-F (Foreign Banks)	Change in WALR-F (All Scheduled Commercial Banks)	Change in WADTDR (Public Sector Banks)	Change in WADTDR (Private Sector Banks)	Change in WADTDR (Foreign Banks)	Change in WADTDR (All Scheduled Commercial Banks)
Nov 2016 to Mar-2018	-0.25	-0.5	-1.00	-0.82	-0.55	-0.93	-1.30	-1.12	-0.35	-1.14	-0.76	-0.63	-0.52	-0.71
April 2016 to Oct-2016	-0.5	-0.375	-0.48	-0.12	-0.26	-0.11	-0.63	0.02	-0.47	0.01	-0.48	-0.41	-0.27	-0.35
Oct-2014 to Mar-2016	-1.25	-1	-0.64	-1.08	-0.39	-0.70	-1.03	-1.20	-0.93	-1.05	-0.97	-0.98	-1.01	-0.97
April 2013 to Sept 2014	0.5	0	-0.37	0.15	-0.90	-0.29	--	--	--	--	-0.12	-0.06	0.00	-0.11
WALR-O : Weighted Average Lending Rate - Outstanding Loans; WALR-F: Weighted Average Lending Rate - Fresh Loans; WADTDR : Weighted Average Domestic Term Deposit Rate														

Source: Author's work, based on the data compiled from the website www.rbi.org.in

4. External benchmarking: Is India ready?

Reserve Bank of India has been coming up with different types of benchmarking systems like BPLR, Base Rate and MCLR etc. mandating all the banks to determine their lending rates accordingly. Although these different benchmark regimes did result in some improvement over their preceding regime in terms of both increasing the transparency in determination of lending rates as well as in ensuring better transmission of policy rates, but all of these regimes have turned out to be less than perfect, still leaving some scope for improvement. In view of the above, RBI constituted an internal study group on July 24, 2017 to review the existing MCLR system and explore the feasibility of linking the bank lending rates directly to some external market determined benchmark rate.

Table 6. Volumes: Select Markets

Item	Overnight Call Money Market	CBLO	Market Repo	91-TB (outright market)	CDs	OIS	G-sec (outright market)
Volumes (Rs. billion)	148.5	614.5	276.2	19.5	52.8	84.6	340.8
As per cent of Bank Deposits	0.159	0.659	0.296	0.021	0.057	0.091	0.365
Note: Pre-demonetisation period (average daily trading volumes in 2015-16) is used here. CBLO: Collateralized Borrowing and Lending Obligation; 91-TB: 91 days -Treasury Bills OIS : Overnight Indexed Swaps; G-Sec: Government Securities							

Source: www.rbi.org.in

This study group has evaluated 13 possible candidates namely Reserve Bank's Policy Repo rate, Market Repo rate, 14-day Term Repo rate, T-Bill Rate, G-sec yields, Certificates of Deposit (CD) rate, Weighted Average Call Rate (WACR), Collateralized Borrowing and Lending Obligation (CBLO) rate, Mumbai Inter-Bank Outright Rate (MIBOR), Mumbai Inter-Bank Forward Offer Rate (MIFOR), Overnight Index Swap (OIS) rate, Financial Benchmark India Ltd. (FBIL) CD rates, and the FBIL T-Bill rates and have concluded that none of these external benchmark rates or instruments in India meets all the requirements of an ideal benchmark. The study group, however, zeroed in on three benchmark rates namely Reserve Bank's Policy Repo Rate, T-Bill Rate and Certificate of Deposit Rate, which they found relatively better suited, out of all the 13 possible candidates, to serve the role of an external benchmark rate.

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But at the same time, the study group has also confessed the imperfections of each of the possible candidates of benchmark rates, including the three recommended by them. Each of the markets where these rates are getting determined suffer from a number of issues like very low volume (Table 6), lack of mature and robust secondary market, high volatility and lack of transparency etc. and are, therefore, susceptible to manipulation. Although study group has argued that both the CD and T-Bill rates were among the least volatile rates in 2017, but that is too narrow a time horizon to reach any conclusion. In fact, when seen in a longer time horizon, these rates too have shown a very high volatility, especially prior to 2017 (Table 7).

Table 7. Interest rate volatility

Year	WACR	CBLO	Market Repo	91-day Treasury	3-Month CD	MIBOR	3-month MIFOR	6-month MIFOR	1-yr Govt. securities	5-yr Govt. securities	10-yr Govt. securities
Average											
2012	8.33	7.98	8.13	8.36	9.22	8.38	7.79	7.35	8.06	8.24	8.26
2013	8.27	7.99	8.22	8.57	9.02	8.35	8.41	8.03	8.43	8.24	8.12
2014	8.1	8.17	8.22	8.61	8.83	8.26	8.69	8.61	8.54	8.59	8.57
2015	7.22	7.25	7.27	7.64	7.85	7.37	7.58	7.63	7.66	7.83	7.76
2016	6.43	6.39	6.46	6.68	7.02	6.57	6.9	7.06	6.88	7.17	7.21
2017*	6.01	5.97	5.97	6.13	6.31	6.2	6.17	6.27	6.38	6.68	6.64
Standard Deviation											
2012	0.51	0.87	0.63	0.29	0.84	0.48	0.76	0.54	0.09	0.15	0.16
2013	1.03	1.31	1.08	1.15	0.97	1.03	1.12	1.04	0.94	0.58	0.54
2014	0.36	0.47	0.37	0.24	0.43	0.4	0.48	0.43	0.21	0.29	0.29
2015	0.46	0.43	0.62	0.43	0.51	0.41	0.57	0.39	0.34	0.13	0.09
2016	0.25	0.36	0.27	0.39	0.68	0.27	0.84	0.66	0.34	0.44	0.46
2017*	0.08	0.27	0.28	0.15	0.12	0.12	0.19	0.21	0.11	0.17	0.2
Coefficient of Variation											
2012	6.07	10.87	7.7	3.47	9.12	5.76	9.79	7.38	1.11	1.81	1.94
2013	12.41	16.36	13.17	13.37	10.79	12.38	13.34	12.96	11.17	7.02	6.63
2014	4.5	5.76	4.51	2.76	4.87	4.83	5.55	5.03	2.43	3.41	3.33
2015	6.4	5.97	8.6	5.64	6.53	5.51	7.49	5.16	4.46	1.61	1.13
2016	3.94	5.56	4.22	5.82	9.69	4.09	12.13	9.33	5.01	6.2	6.34
2017*	1.3	4.5	4.71	2.37	1.84	2	3.06	3.4	1.7	2.53	2.97

WACR: Weighted Average Call Rate; CBLO: Collateralised Borrowing and Lending Obligations; CD: Certificate of Deposits; MIBOR : Mumbai Inter-Bank Outright Rate; MIFOR : Mumbai Inter-Bank Forward Offer Rate

*: Based on daily data up to August 2017

Source: www.rbi.org.in

One of the suggested candidates for external benchmark rate i.e. Reserve Bank's policy repo rate (RBI, 2017), if set as the external benchmark rate for lending, may put some moral restrictions on RBI to make changes in the same as frequently as they would otherwise like to, as a small adverse change in policy repo rate might impact the banks' profitability quite adversely, as their entire existing loan portfolio would be directly linked to the policy repo rate. The banking industry, especially public sector banks, which are already struggling with their profitability due to burgeoning Non Performing Assets, may either not be able to withstand the adverse changes in policy repo rate or may start lobbying against any adverse changes in policy repo rate, either directly or through the Government of India, and that in turn, may restrict RBI in exercising their key monetary policy tool used for achieving the desired macroeconomic objectives. If we look at the international practices and experiences, some of the most robust, mature and market driven Inter-Bank Offer Rates (IBORs) which are used quite extensively as benchmark rates like LIBOR (London Inter-Bank Offer Rate), TIBOR (Tokyo Inter-Bank Offer Rate), EURIBOR (Euro Inter-Bank Offer Rate) etc. have also shown unexpected behavior during stressed market conditions and global financial crisis. Not only that, what is more alarming is the fact that one of the most reliable, mature and market-driven benchmark rate i.e. LIBOR was also found to have been manipulated by some stakeholders as was concluded based on the investigations done in what is known as the 'LIBOR scandal of 2012'. Moreover, given the tough competition faced by banking industry on their liability side due to availability of a number of investment opportunities in the market with better tax-adjusted returns, banks are not in a position to reduce their deposit rates considerably, making it infeasible to link their liability side with any external benchmark rate. With unilateral linking of only Assets side of banks with any external benchmark rate, while keeping the liability side non-aligned to the same, would jeopardise their balance sheets quite adversely.

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In addition, moving away from internal benchmarking towards an external benchmarking, would compromise with the freedom of banking industry in making their business decisions. Instead of making efforts towards decontrolling of interest rates and promoting competition, if RBI, on the contrary, starts exercising further controls and regulations, it would not only amount to draconian exercise of powers by the regulator, but would also be against the spirit of Financial Liberalization. Further, even if banks are forced to link their lending rates with some external benchmark rates, they would still be able to manipulate the final lending rates by playing with the spreads. In any case, the RBI will have to provide the freedom to banks to decide their spreads, and change the same even for the existing customers, to account for any change in the credit risk of the outstanding loans. This freedom, if misused, will defeat the very purpose of external benchmarking. In view of the above, it would not be appropriate at this juncture of time for a country like India to switch to any kind of external benchmarking for determining banks' lending rates, at least till the secondary markets for the concerned financial instruments achieve the required depth and maturity with sufficient volume and stability.

5. The way forward

As has been observed in this paper that the introduction of Base Rate system in 2010 has brought about a considerable improvement in the monetary policy transmission, and the introduction of MCLR system in 2016 has improved it even further, though marginally. Further, it is clearly evident that, unlike BPLR regime when banks were taking undue advantage of the loopholes in the then system of pricing loans, in the currently prevailing system of MCLR, the banks are not in a position to price the loans to their borrowers in any exploitative unjust way. This is not to suggest that the transmission of policy rate has reached its perfection and there is no further scope for improvement.

However, to look for the solution in external benchmarking, which is also not a fool-proof remedy and suffers a number of pitfalls as discussed earlier in this paper, would not only be a regressive attempt against the spirit of financial liberalisation, but also may open another Pandora's box. In view of the above, it is suggested that instead of regulating the banking industry any further through external benchmarking or otherwise, RBI should try and find the solution in deregulation by inculcating competition among banks and allowing market forces to reach the optimum interest rates. Some of the steps which may be envisaged in this regard are suggested as under:

1. RBI must prescribe a format to all the banks to declare their critical interest rates e.g. Base Rate, MCLRs, and Weighted Average Lending Rates etc. for all the categories of loans.
2. All the banks must display these interest rates, in the RBI prescribed format, prominently on their website as well in all of their branches.
3. RBI should host one website containing the comparative details of the interest rates of all the banks in an easy to comprehend manner, and the link of this website must also be provided on the home page of RBI's official website www.rbi.org.in as well as on the home pages of the websites of all the banks.
4. RBI should run a comprehensive nation-wide campaign in creating awareness among public and educating the prospective and existing borrowers regarding the ways to compare the prevailing interest rates of various banks.
5. The cost of switching of existing loans from one bank to another should be kept minimal, if not free, for the borrowers.
6. It should be mandated by RBI to all the banks that any change in the existing borrower's effective interest rate must be immediately informed to the borrower by the concerned bank through a letter, e-mail and SMS. Moreover, this message should not only mention the link of the RBI's portal having the comparative details of the prevailing lending rates of all the banks, but should also clearly state that if the borrower is not satisfied with the change in the interest rate, the loan may be transferred to any other bank, after paying the minimal switching charges, if any.

It is recommended that if the enough awareness is created among the consumers and the competitive forces come into play, the banks would automatically be forced to keep their lending rates competitive, even if the same are linked to some internal benchmarking rate like MCLR. This will not only result into efficiency in banking operations, keeping interest rates competitive for customers, but will also ensure sustainable profitability for the banking industry.

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The same has already been made evident from Table 5, wherein the reduction in banks' weighted average lending rates for both the outstanding as well as fresh loans has been much more than the reduction in the policy rate during the post-demonetisation period due to increased liquidity in the banking system. It may, therefore, be concluded that the banks are likely to keep their interest rates competitive irrespective of the changes in policy rates, if the competitive forces prevail and their commercial judgment so warrants.

6. Conclusion

It is evident from the analysis done in this paper that although the initial efforts made immediately after deregulation of interest rates in 1994 by RBI in the form of Prime Lending Rate (PLR) and Benchmark Prime Lending Rate (BPLR) grossly failed to achieve the desired objectives of bringing transparency and effective transmission of monetary policy, but the Base Rate system introduced in 2010 has brought about a significant improvement, which was further refined in the form of Marginal Cost of funds based Lending Rate (MCLR) introduced in 2016. While Base Rate system has primarily brought the transparency in the lending rate regime by eliminating the anomalies prevailing between the interest rates charged to the existing borrowers and the new borrowers as banks were prohibited to lend below Base Rate, the MCLR system has further improved on the transmission of policy rate, as it was mandatory for the banks to consider their marginal cost of funds and not the average cost of funds while computing their benchmark rate. However, it is pertinent to mention here that, with the available set of data, the impact of MCLR system on transmission cannot be ascertained accurately because of following two reasons. Firstly, the MCLR system had been introduced as recently as April 2016, and not much time has lapsed since then to assess its real impact on the transmission. Secondly, a major macroeconomic event of Demonetisation of higher denomination currency notes announced by the government of India in November 2016 had increased the liquidity with the banks abruptly, and this has partly caused the reductions in the lending rates post November 2016, and therefore it would be wrong to attribute the entire reduction in the lending rates to the reduction in the policy rates. Therefore, one needs to allow some more time to ascertain the real impact of MCLR system on the monetary policy transmission.

Further, it was observed in this paper that the impact of change in policy rates with a lag of 2.5 quarters is found to have a better pass-through to lending rates, as compared to the change in policy rates during the same period. The option of benchmarking of lending rates with some external rate, as being envisaged by RBI, is also prone to risks, as has been acknowledged by the same internal study group of RBI, which has propounded the idea of external benchmarking. The first of the three shortlisted rates i.e. Policy Repo Rate is not truly market driven, and therefore, will not only result into draconian centralisation of powers in the hands of RBI, but will also be subject to lobbying from banking industry, thereby restricting RBI in exercising the option of changing Policy Repo Rate as frequently as it would otherwise like to. The other two proposed rates i.e. Certificate of Deposit Rate and T-Bill rate do not have the sufficient volume, depth and maturity of secondary market to withstand any possible manipulation of the same by the various stakeholders to their advantage. It is also to be noted here that, given the inflexibility of banking industry on their liability side due to sever competition from better investment opportunities available to depositors and burgeoning None Performing Assets (NPAs), the banking industry is left with hardly any scope to further afford any significant reduction in their lending rates, irrespective of the movements in the RBI's policy rates.

Therefore, any further controlling with respect to benchmark lending rates by RBI would either force the banking industry to indulge in manipulation with spreads charged by them over and above the benchmark rate, thereby still inhibiting the transmission to the effective lending rates, or would result into compromising with the profitability of the banks, many of which are already ailing due to rising NPAs. Moreover, this level of micro-managing and controlling of banking industry by RBI would be against the spirit of Financial Liberalisation, the philosophy which the country has been following since 1991 and has benefited it immensely. In view of the above, it is proposed that RBI should facilitate and promote competition among banks and should allow the market forces to determine the optimum lending rates. In this regard, RBI should play a supportive role and should not only make efforts in creating awareness among the citizens regarding prevailing lending rate regime but should also make it easier for the existing borrowers to switch from one bank to another, with minimum possible charges, if not free.

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7. References

1. V. Acharya. Monetary transmission in India: why is it important and why hasn't it worked well? *Inaugural Aveek Guha Memorial Lecture*. 2017; 1-15.
2. Report of the expert committee to revise and strengthen the monetary policy framework. Reserve Bank of India, Mumbai. 2014; 1-130.
3. Report of the internal study group to review the working of the marginal cost of funds based lending rate system. Reserve Bank of India, Mumbai. 2017
4. J.K. Khundrakpam. Examining the asymmetric impact of monetary policy in India. *Margin, Journal of Applied Economic Research*. 2017; 11(3), 290–314
5. A. Chavan, R.R. Vaidya. Financial liberalization in India and the bank lending channel of monetary transmission. *South Asia Economic Journal*. 2003; 4(2).
6. A. Anagnostou, S. Papadamou. Environment and Planning. *Government and Policy*. 2016; 34, pp. 795 – 815.
7. N. Sengupta. Sectoral effects of monetary policy in India. *South Asian Journal of Macroeconomics and Public Finance*. 2014; 3(1), 127–154.
8. Statistical tables related to database on Indian economy. Reserve Bank of India, Mumbai. 2017.
9. R.N. Paramanik, B. Kamaiah. A structural vector auto regression model for monetary policy analysis in India. *Margin—Journal of Applied Economic Research*. 2014; 8(4), 401–429.
10. A. Aleem. Transmission of monetary policy in India. *Journal of Asian Economics*. 2010; 21(2), 186–97.
11. M.D. Patra, M. Kapur. A monetary policy model for India. *Macroeconomics and Finance in Emerging Market Economies*. 2012; 5(1), 16–39.

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