

## The Effects of Monetary Policy on Selected Private and Public Sector Banks - An Empirical Study

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### Abstract

*The evidence of studies conducted on effects of Monetary policy on banks and their behavior clearly states that the frequent changes in the instruments of Monetary policy has a direct and indirect influence on the operations of banks and this in turn affects the operations of small and medium scale industries. Industries try to reduce their borrowings and postpone their investments during tight money. At the same time banks take a conservative approach while lending. Banks try to be selective due to funds shortage and put restrictions on overdraft facilities. This paper examines what effect banks have and how they behave during policy on rates changes.*

*The study conducted reveals that, the monetary policy tools play an important role in deciding the lending and borrowing rates of the banks. A hike in key policy rates leads to increase in banks lending rates which results in low demand from the borrowers and increased bad debts which in turn creates Non Performing Assets (NPA) for banks. Banks did not find significant number of individuals approaching other money lenders during credit squeeze. Customers did not approached money lenders as they relied on the trade credit rather than relying on banks credit.*

**Key words : Monetary policy, Non-performing assets, Fixed deposits, Trade credit, bank credit**

### Introduction

Monetary policy is the process by which the monetary authority of a country controls the supply of money, often targeting an inflation rate or interest rate to ensure price stability and general trust in the currency. Monetary policy is referred to as either being expansionary or contractionary, where an expansionary policy increases the total supply of money in the economy more rapidly than usual, and contractionary policy expands the money supply more slowly than usual or even shrinks it. This paper examines what effect banks have and how they behave during key policy rates changes. Investigation on impact of monetary policy is essential as the banks get affected with tight monetary policy.

Frequent and unexpected changes in the key policy rates will definitely have an impact on the lending and borrowing activity, supply and demand for the fund, performance and profitability of the banks. As the major source of funds for the banks is deposits, such variations in key policy rates will force banks to change the rates of deposits and lending. The monetary policy tools play an important role in deciding the lending and borrowing rates of the banks. A hike in key policy rates leads to increase in banks lending rates which results in low demand from the borrowers and increased bad debts which in turn creates Non Performing Assets for banks.

### Objectives of the study

- To understand how banks are affected due to changes in key policy rates and how they respond to this.
- To examine the effects of key policy rates on banks during contractionary monetary policy.

### Need for the study

The evidences of studies conducted on effects of Monetary policy on banks and their behavior clearly states that the

frequent changes in the instruments of Monetary policy such as Cash Reserve Ratio (CRR), Statutory Liquidity Ratio (SLR), Marginal Standing Facility (MSF), Repo and Reverse Repo has a direct and indirect influence on the operations of banks and this in turn affects the operations of small and medium scale industries. Industries try to reduce their borrowings and postpone their investments during tight money. At the same time banks take a conservative approach while lending. They try to be selective due to funds shortage and put restrictions on overdraft facilities. This paper examines what effect banks have and how they behave during key policy rates changes. Investigation on impact of monetary policy is essential as the banks get affected with tight monetary policy. Hence there is need to study the behavior and impact of Monetary Policy on banks and how well they respond to it.

### Scope of the study

The study entitled "The effects of monetary policy on selective Private and Public sector Banks - An empirical evidence" undertakes study of impact of some factors of monetary policy on bank behaviour such as Repo rate, reverse repo, MSF, CRR and SLR. The study is restricted to the top five private sector banks and top fifteen public sector banks located in Hubballi.

### Research Methodology

To accomplish the objectives of the study entitled "The effects of monetary policy on selective public sector and private sector banks - An empirical evidence", various reports relating to the effects of monetary policy on banks are reviewed and evidences were observed. A questionnaire is drafted to analyse the banks behavior relating to the effects of monetary policy. This questionnaire is administered to regional branch managers of 15 public and 5 private sector banks located in Hubballi. Views on past, present and future expectations of the branch head regarding the effects of key policy rates are collected. The time period for the study is from February 2015 to July 2015. Names of the banks selected for the study are mentioned in Table 1

### Literature Review

Several researchers have tried to study the effects of monetary policy on small industries. In the study conducted by Benjamin Caplan (1940) reveals that the change in the interest rate increases the profitability of existing machines, it will, *cet. par.*, lower the rate of reinvestment. On the other hand, if the change in the interest rate decreases such profitability, it does not follow automatically, that this will lead to an increased rate of reinvestment. Doris M. Eisemann (1958) concluded that a tightening of credit would impede the inventory build-up in those industries which do not tend to be cyclically sensitive just as much as in the other industries. It is found that the inventory level of large firms is not very sensitive to changes in monetary policy. Victor L.

Andrews, Seymour Friedland and Eli Shapiro (1959), analysed the receivables/payables ratio by industry and firm size for the corporate universe which indicates that trade credit tends to flow from large firms to small firms. The increase in trade credit extended by manufacturing corporations exceeded the increase in bank loans. In 1956, trade credit was the single most important source of funds for the small corporations. Sachin Chaudhuri (1962) found that burden of interest is significantly heavier on small units than on large units and that it is the lightest on foreign companies. The larger companies are able to pass on a substantial part of the burden of financing their working capital needs to their suppliers in the small sector in the form of trade credit.

James W. Christian and Warren F. Mazek (1969), found differential effects in the extension of bank credit which favor large firms during tight money periods and was contradictory to findings of Bach and Huizenga who concluded that there was no substantial discrimination by banks against small firms during the 1955-57 tight money period, despite their finding that bank lending to large firms increased relative to small firms. H. T. Parekh (1974), Observed that normally the ruling interest rates in the non-organised market are 3 to 5 per cent higher than in the organised market which caters primarily to the small-scale industry, agriculture and the small businesses, in urban and in rural areas. The availability of funds and the rates of interest at which such funds are available in this market depend directly on the supply and rates of interest in the organised money market. The impact of any upward change in the organised sector is quickly and sharply felt by the unorganised sector. Banks will never be able to grant to this sector all the finance it needs and the businesses will continue to have to depend on the non-organised market for a vital part of their needs.

Mark Gertler and Simon Gilchrist (1993), Evidence from the manufacturing sector, further, suggests a strong compositional effect on small versus large firms. After tight money, lending to small firms declines relative lending to large firms. Mark Gertler and Simon Gilchrist (1994) found that small firms contract substantially relative to large firms and credit flows to small firms contract relative to credit flows to large firms after tight money. Lawrence J. Christiano, Martin Eichenbaum and Charles Evans (1996) showed that the measures of contractionary monetary policy shocks are associated with persistent declines in real GDP, employment, retail sales and non financial corporate profits as well as increases in unemployment and manufacturing inventories. Following a contractionary shock to monetary policy, net funds raised in financial markets by the business sector increased for roughly a year.

Ruby P. Kishan and Timothy P. Opiela (2000), argue that bank asset size and bank capital affect the ability of banks to raise funds and maintain loan growth during contractionary policy. Allen N. Berger and Gregory F. Udell (2002), in their article highlighted that, tight monetary policy reduces bank lending and lowers the growth and investment of small businesses, consistent with the bank lending view. Saibal Ghosh (2006), The study presents empirical evidence on the lending channel in India, using annual bank level data covering the period 1992-2004. The analysis indicates that for banks classified according to size and capitalisation, a monetary contraction lowers bank lending, although large and well capitalised banks are able to shield their portfolio from monetary shocks. If central bank manages to diminish money supply, the real interest rate is expected to rise, by dampening the real demand. A monetary policy tightening by increasing the interest rate, deteriorates the net worth of position and credit worthiness of the private sector, prompting the banker to raise hurdle rates on loans. Saibal Ghosh (2008), Analysis lends some support to the theoretical prediction that constrained banks raises lending to less risky borrowers in response to a monetary contraction.

### Analysis & Interpretation

Table 2 shows Fixed Deposits as the major source of finance for the 80 per cent of the banks for lending activities. They seem to be less dependent on Saving Bank account and Current account funds.

According to Table 3, Majority of respondents are of the view that the monetary contraction results in decreased bank lending as it makes less funds available for lending. Banks try to restrict themselves from lending activities during contractionary monetary policy implementation.

According to Table 4, Majority of the respondents are of the opinion that banks are sensitive to key policy rates changes. Frequent changes in key policy rates forces the banks to change their key interest rates and restrict to selective lending.

From Table 5, it is found that Majority of the respondents said that their key lending rates change when key policy rates change. It is understood that there is direct relationship between key policy rates and lending rates of the bank. When key policy rates change lending rates are bound to change.

From Table 6, it is clear that Majority of the banks are affected by the changes in all key policy rates in one or the other way. Frequent changes in all the key policy rates such as CRR, SLR, MSF, and REPO and reverse Repo have affected the banks in the past and will have a significant impact on banks in future.

As shown in Table 7, 70 per cent of the respondents are of the opinion that profitability of the banks is affected by the frequent and unexpected variation in the key policy rates. Bank's internal rate of return fluctuates due to the variation in key policy rates.

As shown in Table 8, 50 per cent of the banks disburse loans to only selective borrowers who have high credit worthiness and longterm relation during tight money policy.

According to Table 9, 42 per cent of the banks found variation in demand for all the segments of lending during contractionary monetary policy. 26 per cent of them faced variation in demand from only the business loan segment. Monetary contraction or expansion will have an impact on the variation in demand for business loans.

According to Table 10, Majority of the banks prefer to lend short term loans during tight money policy. Banks would like to be on the safer side and hence they prefer short term lending during tight money. Short term lending helps the banks to recover the lent money immediately and rotate it.

As shown in Table 11, Majority of the banks NPA found to be increased during lack of liquidity and higher interest

rates periods. NPA's of the banks will increase as a result of defaults rise due to the higher interest rates and defaults in repayments.

The data shown in Table 12, reveals that 44 per cent of the bank managers observed that the investment decisions and borrowings of the companies came down during contractionary monetary policy. 25 per cent of them did not find any variation in investment decisions and borrowings from the companies during contractionary monetary policy. During contractionary monetary policy the new investments and expansionary activities of the companies either diminishes or else remain stagnant.

From Table 13, It is observed that companies drop the projects due to higher interest rates and lack of availability of credit which had an impact on the profitability of the banks.

Results from Table 14 show that, there were no much reductions observed in the overdraft limit to the companies during tight money policy. Even during tight money policy banks didn't reduced the overdraft limit to the companies.

As shown in Table 15, It is observed that frequently companies relied more on the trade credit during periods of low credit and higher interest rates. Companies go for trade credit from suppliers rather depending on credit from banks during tight liquidity and higher interest rates period.

## Conclusion

Frequent and unexpected changes in the key policy rates will definitely have an impact on the lending and borrowing activity, supply and demand for the fund, performance and profitability of the banks. As the major source of funds for the banks is deposits, such variations in key policy rates will force banks to change the rates of deposits and lending. The monetary policy tools play an important role in deciding the lending and borrowing rates of the banks. A hike in key policy rates leads to increase in banks lending rates which results in low demand from the borrowers and increased bad debts which in turn creates Non Performing Assets for banks.

Expansionary monetary policy is good for the economical growth. Further contractionary monetary policy of RBI results in liquidity tightening and higher interest rates prevail in the economy. As per the observations the rate at which the industries borrow is an important factor to them. Interest rate decides whether to undertake an investment decision or to let go a project in the hand. During higher interest rates and tight money period, if the investment opportunity is very much attractive and gives the internal rate of return more than the cost of capital then, the rate of interest would be the secondary factor.

It is observed that even during contractionary situation, banks had sufficient funds for lending. They did not find significant number of individuals approaching other money lenders during credit squeeze. Banks didn't reduce the overdraft limit to the companies. The bankers believed that customers did not approached money lenders as they relied on the trade credit rather than relying on banks credit.

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**Table 1. Names of the Banks selected for study.**

Public Sector Banks	Public Sector Banks	Public Sector Banks	Private Sector Banks
Bank of India	State bank of India	Vijaya Bank	HDFC
IDBI	Bank of Baroda	State Bank of Hyderabad	AXIS Bank
Union Bank	Punjab National Bank	State Bank of Mysore	Yes Bank
Syndicate Bank	Central Bank	Federal Bank	ICICI Bank
Corporation bank	Canara Bank	Indian Overseas Bank	Kotak Mahindra Bank

**Table 2. Major source of funds to Banks.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fixed Deposits	16	80.0	80.0	80.0
	CA & SA	4	20.0	20.0	100.0
	Total	20	100.0	100.0	

**Table 3. Opinion on the statement "Monetary contraction lowers bank lending".**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly agree	4	20.0	21.1	21.1
	Agree	8	40.0	42.1	63.2
	Average	2	10.0	10.5	73.7
	Disagree	5	25.0	26.3	100.0
	Total	19	95.0	100.0	
Missing	System	1	5.0		
Total		20	100.0		

**Table 4. Banks sensitivity to key policy rate changes by RBI.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly Sensitive	5	25.0	25.0	25.0
	Sensitive	10	50.0	50.0	75.0
	Average	3	15.0	15.0	90.0
	Less Sensitive	2	10.0	10.0	100.0
	Total	20	100.0	100.0	

**Table 5. Effect on lending rates due to key policy rates change.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	5	25.0	26.3	26.3
	Often	8	40.0	42.1	68.4
	Sometimes	4	20.0	21.1	89.5
	Rarely	2	10.0	10.5	100.0
	Total	19	95.0	100.0	
Missing	System	1	5.0		
Total		20	100.0		

**Table 6. Key policy rates changes affected in the recent past.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CRR	4	20.0	20.0	20.0
	SLR	2	10.0	10.0	30.0
	REPO	3	15.0	15.0	45.0
	All of these	11	55.0	55.0	100.0
	Total	20	100.0	100.0	

**Table 7. Impact on the profitability of the bank due to frequent changes in key policy rates.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Highly agree	4	20.0	20.0	20.0
	Agree	10	50.0	50.0	70.0
	Neutral	3	15.0	15.0	85.0
	Disagree	3	15.0	15.0	100.0
	Total	20	100.0	100.0	

**Table 8. Loan disbursals during tight money policy.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	6	30.0	30.0	30.0
	Often	4	20.0	20.0	50.0
	Sometimes	6	30.0	30.0	80.0
	Rarely	3	15.0	15.0	95.0
	Never	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

**Table 9. Variation in demand in different segment of lending.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Individual loan	1	5.0	5.3	5.3
	Business loan	5	25.0	26.3	31.6
	Housing loan	2	10.0	10.5	42.1
	All of these	8	40.0	42.1	84.2
	No variation	3	15.0	15.8	100.0
	Total	19	95.0	100.0	
Missing	System	1	5.0		
Total	20	100.0			

**Table 10. Preferred lending during tight money policy.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Short term lending	14	70.0	70.0	70.0
	Long term lending	2	10.0	10.0	80.0
	Both of these	4	20.0	20.0	100.0
	Total	20	100.0	100.0	

**Table 11. Effect on NPA of the bank due to lack of liquidity & higher interest rates.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Increase	11	55.0	57.9	57.9
	Decrease	3	15.0	15.8	73.7
	No change	5	25.0	26.3	100.0
	Total	19	95.0	100.0	
Missing	System	1	5.0		
Total	20	100.0			

**Table 12. Variations in investment decisions and borrowings of companies during contractionary monetary policy.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Increase	5	25.0	27.8	27.8
	Decrease	8	40.0	44.4	72.2
	No change	5	25.0	27.8	100.0
	Total	18	90.0	100.0	
Missing	System	2	10.0		
Total	20	100.0			

**Table 13. Drop in the project due to higher interest rates and lack of credit availability during tight money.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	4	20.0	21.1	21.1
	Often	4	20.0	21.1	42.1
	Sometimes	5	25.0	26.3	68.4
	Rarely	5	25.0	26.3	94.7
	Never	1	5.0	5.3	100.0
	Total	19	95.0	100.0	
Missing	System	1	5.0		
Total	20	100.0			

**Table 14. Reductions in the overdraft limit to the companies during tight money policy**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	3	15.0	15.0	15.0
	Rarely	7	35.0	35.0	50.0
	Never	10	50.0	50.0	100.0
	Total	20	100.0	100.0	

**Table 15. Reliance on the trade credit during periods of low credit availability and higher interest rates.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very frequent	2	10.0	10.5	10.5
	Frequent	6	30.0	31.6	42.1
	Sometimes	5	25.0	26.3	68.4
	Rarely	5	25.0	26.3	94.7
	Never	1	5.0	5.3	100.0
	Total	19	95.0	100.0	
Missing	System	1	5.0		
Total	20	100.0			