Analysis of Monetary Policy and its Impact on Indian Economy

Manpreet Kaur, Sunanda

ABSTRACT: Monetary policy matters for growth both in the short-run and long-run. This study focuses on the evaluation of monetary policy and its impact on Indian economy. Via monitoring the level of money supply, the central bank strives to protect price stability. The study is done using various indicators and factors such as Gross domestic product as dependent variable and repo rate, reverse repo rate, unemployment, Foreign direct investment and inflation as independent variable. Using these variables, it was found out that the economy of a nation is totally dependent on these factors. The parameter of calculating GDP was different. The objective of the research is to know effectiveness of monetary policy in India and to analyze the impact of selected monetary instruments on Indian Economy.

Key Words- Monetary Policy, Gross Domestic Product, Foreign Direct Investment, Inflation, Indian Economy.

I. INTRODUCTION

A. Monetary Policy
Monetary policy as a macroeconomic tool is widely used by central banks, RBI or other regulatory committees to control quantity and rate of money supply in an economy, essentially affecting interest rates. A country’s macro economy environment is affected by its monetary policy. Financial system is the mechanism where a nation’s financial authority, usually a reserve bank, monitors the flow of money to the nation by imposing its power over policy rate in order to retain stable growth and gain better wealth creation. Monetary policy is now regarded as one of the most important tools of economic management. So, monetary policy is the tool in the hand of Central Bank of country in order to achieve two objectives, i.e. facilitation of G.D.P. growth and other is, controlling and regulation of inflation rate. If any central bank able to regulate or control inflation rate, then automatically you will able to rate growth as well. So, both are co-related to each other. Inflation rate is controlled by increasing or decreasing money supply in the economy. Monetary policy is of two types:

A. Expansionary monetary policy (E.M.P.):- When there is increases in the supply of money by making credit supply easily available. Money produced through such a policy is called cheap money. When an economy goes through a phase of recession accompanied by lower levels of growth / high levels of unemployment. But risk associated with E.M.P. cost inflation.

B. Contractionary monetary policy (C.M.P.):- When there is decrease in the supply of money; use to tackle the inflation by raising the interest rates.

II. TOOLS TO REGULATE MONETARY POLICY

A. There are two tools to regulate monetary policy, qualitative and quantitative. With these tools money supply is regulated in the market.

B. Policy Rates: The policy rate includes repo rate, the value wherein the RBI lends banks cash for a short-term period. Then, next is reverse repo rate, borrowing rate for shorter period at which RBI borrows money from banks. The Reverse Repo rate indicates the rate wherein the reserve bank penetrates the bank liquidity. Then bank rate, the interest rate paid by the RBI for supplying the banking system with funds or loans. Marginal Standing facility, is a special window for banks to borrow from RBI against approved government securities in an emergency like an acute cash shortage.

C. Reserve Ratios: The reserve ratio includes, Cash Reserve Ratio, (minimum ratio stipulated by the RBI. This tool is used by RBI to control liquidity in the banking system. Then, the minimum share of their net demand and time liabilities as liquid assets in the form of cash, gold and accepted securities is the statutory liquidity ratio. Lastly, Open market Operations, in which central bank, in order to extend or contract the sum of capital in the financial system, B. buys and sells government securities on the open market. Country’s financial system has been one of managed transformation since the first plan era, i.e., a strategy of effective growth financing maintaining fair sustainable growth. Thus, RBI allows the industry grow through money expansion and tried to contain price inflation through monetary and other control measures. This becomes necessary to note that no single arm of economic policy can successfully pursue all the goals. Therefore, there is always the issue of granting the most suitable aim or goal to each mechanism. It is evident from both the empirical evidence and the research findings that monetary policy is ideally suited to achieving the goal of price stability in the economy between different policy objectives.

III. REVIEW OF LITERATURE

D. Gupta and Srinivasan (1984) evaluated using a simple inter-sector model, the effect of administered price adjustments on sector and overall price movements. The study results clearly show that, without taking into account their reciprocal relations, the effect of administered market adjustments on relative and absolute prices cannot be measured. A partial equilibrium model can not determine the success of administered price revisions as an instrument for generating additional resource mobilization in the public sector, and the inflation potential of administered price adjustments is significantly high and the potential for generating additional savings is much lower than the nominal impact.

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Paulson (1989) studies the effect of monetary policy on the Indian economy during the time leading up to the reform. The study shows that reserve money is the only significant factor affecting the money supply in the economy. He points out the positive connection between inflationary pressures and controlled prices, and what is important, he suggests, is a cordial and symbiotic relationship between monetary policy and fiscal policy in order to maintain price stability.

Tara pore (1993) elaborated inflation on the poorer parts of society as a levy. It is also argued that the need for monetary relaxation is advantageous to the poorest segments of society. There could be nothing farther from the facts. Inflation mitigation is the strongest anti-poverty initiative for me, and so a robust anti-inflationary monetary policy is in line with public concerns. It also forecasts that, for the near future, the inevitable changes in the stock market would entail the development of entirely new skills in the Reserve Bank, the commercial banks and the financial institutions.

Arun Ghosh (1994) commented on the interest rate objection should not mean that all interest rates should be brought down abruptly and precipitously. Two steps are, rather, required. The first is a progressive decrease in the structure of the interest rate. Secondly, and more significantly, the establishment of an institutional system that would make available adequate and timely credit to small farmers, small industries, artisans, etc.

Sinha (1995) said that keeping the financial sector in good shape is very urgent. This calls for the Regulatory Authorities-RBI, SEBI and the Central Government-to be very careful. It is important to bring down the rate of monetary expansion dramatically. That is the real measure of central banking policy performance. Otherwise, inflation on the part of the government and the RBI would become higher, contrary to the complacency observed in this regard.

Rangarajan (1996) commended on study conducted by the ASCI during a lecture on Certain Monetary Policy Problems. In fact, many writers conclude that inflation is endemic in the course of economic growth and inflation is viewed more as a monetary phenomenon than as a systemic imbalance, he noted. Due to the need to provide specific guidance to monetary policy makers, the objective question has become relevant.

Partha Ray et al. (1998) explored new aspects of the monetary transmission mechanism were launched in the liberalization climate of the early 1990s and in the context of growing financial market integration. What inspired the author was an exploration of the Chakrabarty committee model in this modified milieu. The article aims to analyse the role of two main variables, namely interest rates and exchange rates, in the conduct of monetary policy.

Manohar Rao (1999) used a flow-of-funds approach, the real and monetary dimensions of short-run structural adjustment. On the basis of such a structure, it then sets out an empirical basis that can combine the Fund’s financial programming model with the Bank's approach to financial requirements in a way that eliminates the current dichotomies between the real and financial sectors of the economy. The combined model, which determines the balance of the monetary, external, real and financial sectors, is then used to recommend the Indian economy's feasible stabilization policy options over the current fiscal year.

Manohar Rao (2000), judged two primary issues. First, the two-way interactions between business cycles and exchange rates are attempted to be assessed: first by analyzing some of the key factors affecting exchange rates, and then by taking into account the role of exchange rates in stabilizing business cycles. Secondly, the paper offers an analytical structure that helps to forecast the exchange rate in the Indian context, among other things, by formalizing the essence of the relationships between main macroeconomic variables.

George Macesich (2002) explained the role of money within a national economy and the output of monetary regimes. Power and authority are shared between the ministry of finance and the central bank in monetary matters. Interesting historical accounts of the rules versus discretionary debate are also given by the author.

Reddy (2002) remarked that the automatic access of the RBI refinancing facility to banks must also be reassessed in order to achieve greater efficiency in the money market operations of the Reserve Bank through the Liquidity Adjustment Facility. Therefore, as the CRR is reduced and the repo market expands, refinancing facilities may be reduced or fully withdrawn and access to the non-collateral call money market may be limited in order to impart greater effectiveness to monetary policy behaviour.

Bank for International Settlements (2003) reviewed monetary policy should respond to fluctuations in asset prices and/or financial imbalances beyond their effect on the outlook for inflation. It concludes that, while monetary policymakers are likely to be aware of such trends, the macroeconomic consequences can be adequately addressed within an adequately flexible and forward-looking definition of inflation targets. Robert Nobay and David Peel (2003) considered optimal monetary policy in the sense of the adoption of an asymmetric objective function by a central bank. The findings show that many of the results on the time consistency issue need no longer hold under asymmetric preferences. In this paper, they explored the consequences of whether the central bank has an asymmetric loss function for an optimal discretionary strategy. Kannan et al. (2006) attempted to build a Monetary Condition Index (MCI) for India to take into account both interest rate and exchange rate networks simultaneously, when assessing the monetary policy stance and changing monetary conditions. Their findings show interest rates to be more important in shaping monetary conditions in India than exchange rates. Deepak Mohanty (2010) discussed global financial crisis and the response of monetary policy in India. At present, the focus around the world and in India has changed from crisis management to recovery management. RBI steps can now help anchor inflationary expectations, he believes, by reducing the liquidity overhang without jeopardizing the growth process, as market liquidity remains comfortable.
IV. RESEARCH METHODOLOGY

Secondary Data is used for studying the impact of monetary policy. Various resources from RBI website and other journals are used for study. To study the major variables that determine the effectiveness of monetary policy in ensuring price stability were determined. Firstly, it is country’s GDP growth and the other the factors that effects GDP are inflation rate, unemployment rate, foreign direct investment (FDI) and money supply changes.

A. Research Design- The research is on impact of monetary policy on Indian economy and in this research, we studied five variable and out of these one is dependent variable and four are independent variables.

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Independent variables</th>
</tr>
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<tbody>
<tr>
<td>GDP (gross domestic product)</td>
<td>Inflation</td>
</tr>
<tr>
<td></td>
<td>Foreign Direct Investment</td>
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<tr>
<td></td>
<td>Unemployment Rate</td>
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<td></td>
<td>Policy Rates</td>
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</table>

B. Objectives of the Study- The objectives of the research is to know about the monetary policy and how central bank manages the monetary policy frameworks.

1. To examine the effectiveness of monetary policy in India.
2. To analyze the impact of selected monetary instruments on Indian Economy.

C. Hypothesis

H0- The variables are not having any significant effect on GDP of Indian Economy
H1- The variables chosen are having significant effect on GDP of Indian Economy

D. Type of Research- Empirical research is used for analyzing the data.

E. Sample Size- 10 years data is collected to analyze the impact of selected variables on Indian Economy.

F. Sampling Technique- Convenient sampling


H. Statistical Tool Used- SPSS and MS Excel

V. ANALYSIS OF EFFECTIVENESS OF MONETARY POLICY IN INDIA

1. Gross domestic product

GDP growth rate declined to 6.72% in 2008-09 due to global financial meltdown and improved to 8.59% in 2009-10 and 8.91% in 2010-11 due to high capital inflows. Then again, it slumped to 6.69% in 2011-12, 4.47% in 2012-13 and 4.74% in 2013-14 due to domestic policy logjam and tax disputes. India's Index of Industrial Production (IIP) has declined from 5.6 per cent YoY in June 2014 to 2.95 per cent in June 2019 quarter. Since demonetization, IIP has dropped by 1.54 per cent. India's fiscal deficit forecast to 3.6 per cent of the GDP for this fiscal year, from 3.4 per cent previously, due to weak revenue

2. Inflation

Wholesale prices of all commodities have risen by about 38% between 2005 and 2010, but prices of food items have jumped by over 77%. Some food items have seen even bigger hikes like vegetables (101%)of milk, eggs, meat and fish (80%). In 2009-2010 the country faced worst situation in food inflation which was the major cause overall inflation. Indian food inflation plunged sharply to 4.3% for the week ended December 2015 as compared to 8% in the previous months as onions, potatoes and wheat became cheaper and the rise in the prices of other items moderated on the back of a good monsoon. Inflation has dropped sharply in the last four weeks. It had come down in single digit for the week ended November 2012 from 12.21%. The headline inflation based on the wholesale price index was recorded at 9.73%.

The Reserve Bank of India (RBI) has hiked key policy rates 13 times since the beginning of 2010 to control the price rise.

3. FDI

The year 2009, FDI went down by 35.6% and in 2010 it went down by 6.75%. In the year 2011 FDI went up by 31.56% and again in 2012 it went down and the reason for that is Indian economy experienced its slowest growth (GDP drop down to 5.5) and also struggled with risks related to high inflation as a result, investor confidence was affected, and FDI inflows to India declined significantly. But after 2013 it kept on increasing till 2016 and the reason for increase in FDI was MAKE IN INDIA campaign. FDI in India increased by 91% in 4 years of 2013 to 2016.
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4. Unemployment Rate

The year 2008 is a year of financial crisis and in 2009 economy starts becoming stable then employment rate is also increasing. Later then, poor monsoon hits and there was downfall in employment and in 2010 and 2011 employment rate went down to 3.54. 2012 is the year when periodic employment is there. Then, FDI is initiated in India and it creates more opportunities for employment and employment rate reached to 6.1 in the year of 2018.

5. Policy Rates

Repo Rate and Reverse Repo Rate is 8 and 14 respectively in 2008 and when recession hits the economy then Indian government decides to control the economy and decreases the rates to 5.8 and 9.8 in 2009. After that it became 6 and 10.2 and this trend keeps following itself till 2012 and in the year of 2012 the rates was 8.2 and 16 and in 2013 the rates became 7.1 and 13.8. Then, in the year of 2017 it came down to 6 and 11 and in 2017 when economy is suffering from Demonetization and GST also came in action so to control the flow of money in economy again government decides to increase the rates and in result of that rates didn’t go down in that year and remain stable at 6 and 11.

VI. IMPACT OF SELECTED MONETARY INSTRUMENTS ON INDIAN ECONOMY

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.88</td>
<td>0.76</td>
</tr>
</tbody>
</table>

It is analyzed that R (Karl Pearson’s coefficient of correlation) comes 93% which is very near to 1 this means that the variables are highly positive correlated. If there is increase in independent variables there is also increase in dependent variable (G.D.P.). There is 88% variance of GDP is explained by independent variables.

<table>
<thead>
<tr>
<th>Model</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>7.350</td>
<td>0.24a</td>
</tr>
</tbody>
</table>

It is found that at 95% confidence level, the critical value obtained from F table is F (0.05,5,5) = 5.05. The calculated value of F is 7.350, which is greater than tabular value and fall in rejection region. Hence the null hypothesis is rejected, and alternative hypothesis accepted. Hence with 95% confidence, there is enough evidence to believe that, there is a significant effect of independent variables on GDP.

Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>Inter</td>
<td>Beta</td>
</tr>
<tr>
<td>unemployment</td>
<td>-0.763</td>
<td>0.132</td>
</tr>
<tr>
<td>fdi</td>
<td>0.13</td>
<td>0.009</td>
</tr>
<tr>
<td>reporate</td>
<td>-4.985</td>
<td>0.018</td>
</tr>
<tr>
<td>revrepo rate</td>
<td>4.097</td>
<td>0.018</td>
</tr>
<tr>
<td>inflation</td>
<td>0.142</td>
<td>0.018</td>
</tr>
</tbody>
</table>

Interpretation:
A. Unemployment has no effect on GDP of Indian economy. The calculate value is more than critical value. i.e. 0.132>0.05. This means that unemployment has no effect on growth of Indian economy, Thus, null hypothesis accepted.
B. FDI has also no effect on GDP of Indian economy. The calculate value is more than critical value. i.e. 0.722>0.05. This means that FDI has no effect on growth of Indian economy, Thus, null hypothesis accepted.
C. Inflation has no effect on GDP of Indian economy. The calculate value is more than critical value. i.e. 0.796>0.05. This means that inflation has no effect on growth of Indian economy, Thus, null hypothesis accepted.
D. Repo rate has effect on GDP of Indian economy. The calculate value is less than the critical value. i.e. 0.009<0.05. This means that repo rate influences growth of Indian economy, Thus, alternative hypothesis is accepted.
E. Reverse repo rate has effect on GDP of Indian economy. The calculate value is less than the critical value. i.e. 0.018<0.05. This means that repo rate influences growth of Indian economy, Thus, alternative hypothesis is accepted.

VII. RESULTS AND FINDINGS OF THE STUDY

To preview the results, a strong evidence was found that monetary policy has systematic adverse effects on a country’s competitiveness, as reflected in a decline of unemployment rate.
The study concludes that monetary policy matters for growth both in the short-run and long-run. This study focuses on the evaluation of monetary policy and its impact on Indian economy.

The study is done using various indicators and factors such as Gross domestic product as dependent variable and repo rate, reverse repo rate, unemployment, Foreign direct investment and inflation as independent variable. Using these variables, we found out that the economy of a nation is totally dependent on these factors. Indian economy was shaken during the global financial crisis of 2008. Central bank policy rates were slashed to historic lows. There was fiscal deficit, but the economy improved during 2010-11 and further year. Political instability has also key role on Indian economy the two political giants i.e. congress and BJP has also lot to do with the economy. We witnessed the change in economy of during the regime of both political parties. The parameter of calculating GDP was different. The country also witnessed Demonetization in 2016 which also impacted on the Indian economy. India's fiscal deficit grown every year after 2014.

**VIII. RECOMMENDATIONS**

A possible offset to the beneficial effects of monetary policy, using a methodology that exploits within-country variation in growth to get a more powerful test of the phenomenon. Literature has demonstrated that achieving higher economic growth must be the priority of Indian monetary policy. The nature of monetary policy in India is circumscribed by the fact that financial market liberalization is far from complete (so that the transmission channel of interest rates is incomplete). The financial structure still has strong monopoly features and an overwhelming stake in the banking sector is held by the government (Sharma 2004). The study also argued that, in order to engineer higher economic growth, such monetary policy should be followed to maintain steady interest and inflation rates. The policy has led to the emergence of substantial capital inflows with attendant large build-up of reserves.

**IX. CONCLUSION**

India's GDP is a mixture of all the differential variables that contribute to the Indian economy's well-being. India's GDP provides us with a consolidated report on the Indian economy's results. The two approaches for estimating Indian Gross Domestic Product are the 'Cost Factor' or 'Real Price' approach. The opening-up of the Indian economy was the key factor that led to India's GDP growth after and until the 1990s. Markets were unlocked, and private investments were leveraged by the government. As a consequence, more money has poured into the markets. Laws relating to monetary policy may be active or passive. The passive rule is to keep the supply of capital steady, which is reminiscent of the money growth rule of Milton Friedman. The second, called the rule of price stability, is to adjust the supply of money to maintain the price level stable in response to increases in aggregate supply or demand. Holding the price level and therefore inflation in check is the concept of an active regulation. This rule in India dominates our monetary policy. A stable development is healthy progress.

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AUTHORS PROFILE

Dr. Manpreet Kaur is currently Associate Professor at Mittal School of Business (MHRD NIRF India Rank 52; ACBSP USA, Accredited), Lovely Professional University, Phagwara, Punjab (India). In academic career spanning over 9 years, she has served at Guru Nanak Khalsa College for Women, Ludhiana; Kamla Lohtia Sanatan Dharam College, Ludhiana and St. Soldier College, Jalandhar. She has attended 20+ relevant training programme for continuous learning; has acted as coordinator in a Faculty Development Programme- Case based teaching. She has qualified SAP training for FICO. She has been a reviewer for Journal for Global Economics, Management and Business Research and for Journal of Economics and International Business Management. She has qualified various online courses from Coursera. She is also a professional member for IAA. As ingenious researcher, she has presented several research papers in national & international conferences and seminars. She has published 15 research papers in Scopus and UGC Care listed journals and 15 in refereed edited books. She has attended various faculty development programme. He has guided 2 M.Phil and 40 post graduate research students/projects. She has received Gold Medal for outstanding position in Master of Commerce from Sh. Pranab Mukherjee, Government of India.

Sunanda is currently running coaching centre for Accounting. In academic career spanning over 5 years, she has served at Government Senior Secondary School P.A.P. Campus, Jalandhar and Lovely Professional University. She has attended 10+ relevant training and courses for continuous learning; has acted as coordinator(Finance Committee) for “Finance Conclave” in Lovely Professional University” held in April 2018. She has qualified various online courses from Coursera and AICTC Approved FDP on Financial Statement Analysis and Reporting (NPTEL) and Financial Accounting. She is also a professional member for Indian Accounting Association (IAA). As a researcher, she has presented research papers in National & International conferences and seminars. She has published 3 research papers in Journals and 3 Book Chapters with ISBN Number. She has attended various faculty development programmes in Management and Education Sector. She has guided 6 post graduate research students/projects. She has been Awarded from Smt. Pratibha Singh Patil (Former and First Women President of India) in 2012. She has been Distinction Holder in Guru Nanak Dev University (Amritsar) in M. Com and B.Ed.