

Project Dissertation
on
**“MONETARY POLICY OF INDIA & ITS
TRANSMISSION”**

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I, **Nishant Guvvada**, student of MBA 2014-16 of Delhi School of Management, Delhi Technological University, Bawana Road, Delhi-42 declare that Dissertation Report on **“Monetary Policy of India & it’s transmission”**, submitted in partial fulfillment of Degree of Masters of Business Administration is the original work conducted by me.

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EXECUTIVE SUMMARY

This paper deals with various studies conducted on the monetary policy of India and by extension to a lot of other emerging economies. The study uses secondary data. Qualitative analysis is done on the Secondary data. The paper talks about the various phases in the formulation of the policy, its transition from one phase to another. It also looks at the various linkages between policy rates and economic activity. Importantly, it deals with the various mechanisms used to transmit this monetary policy vis-à-vis credit channel, interest rate channel, exchange rate channel etc. Usually, the monetary policy followed by emerging economies has been pro cyclical as opposed to the counter cyclical one followed by the developed nations. However, now it has been seen that this difference is reducing over the years with the maximum effect being observed during the financial crisis of 2008. Monetary policy stand of developed and developing nations during the financial crisis of 2008 has also been studied in this paper. It is interesting to note that in the current scenario of global slowdown, India has managed to lead the growth rate race. Credit is being given to RBI's timely enforced and appropriate policies as well as current government's new initiatives. Hence, it becomes important to understand the rationale behind the implemented policies. This paper also makes an attempt to study and understand the rationale. This paper then talks about how varying intensity in enforcing monetary policies bring differences in the financial systems of developing nations compared to the developed ones and the consequences of that.

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1. INTRODUCTION

1.1 Introduction of the Project

In this era of globalization, there exists a strong interlink among nations. Occurrence of any event at one point on the globe affects many other parts of the globe. A ripple effect is observed. Hence, it becomes of immense importance that the monetary policy of our country as well as the stance taken worldwide is studied and analyzed.

Monetary policy is the process by which monetary authority of a country, generally a central bank controls the supply of money in the economy by its control over interest rates in order to maintain price stability and achieve high economic growth. In India, the central monetary authority is the Reserve Bank of India (RBI). The RBI implements the monetary policy through open market operations, bank rate policy, reserve system, credit control policy, and moral persuasion and through many other instruments. Using any of these instruments will lead to changes in the interest rate, or the money supply in the economy. Monetary policy can be expansionary and contractionary in nature. Increasing money supply and reducing interest rates indicate an expansionary policy. The reverse of this is a contractionary monetary policy.

It is so designed to maintain the price stability in the economy. Other objectives of the monetary policy of India, as stated by RBI, are:-

1. Price Stability

Price Stability implies promoting economic development with considerable emphasis on price stability. The centre of focus is to facilitate the environment which is favorable to the architecture that enables the developmental projects to run swiftly while also maintaining reasonable price stability.

2. Controlled Expansion Of Bank Credit

One of the important functions of RBI is the controlled expansion of bank credit and money supply with special attention to seasonal requirement for credit without affecting the output.

3. Promotion of Fixed Investment

The aim here is to increase the productivity of investment by restraining non essential fixed investment.

4. Restriction of Inventories and stocks

Overfilling of stocks and products becoming outdated due to excess of stock often results in sickness of the unit. To avoid this problem the central monetary authority carries out this essential function of restricting the flows of the economy and all social and economic class of people

5. To Promote Efficiency

It is another essential aspect where the central banks pay a lot of attention. It tries to increase the efficiency in the financial system and tries to incorporate structural changes such as deregulating interest rates, ease operational constraints in the credit delivery system, to introduce new money market instruments etc.

6. Reducing the Rigidity

RBI tries to bring about the flexibilities in the operations which provide a considerable autonomy. It encourages more competitive environment and diversification. It maintains its control over financial system whenever and wherever necessary to maintain the discipline and prudence in operations of the financial system.

Achieving these objectives is important to run the economy smoothly and hence it becomes very important to study the policy.

There have been many studies on the monetary policy of India and hence this study extends to the concept of transmission of these policies into the economy. The impact of the transmission is pondered upon here.

There exist 4 major channels to transmit monetary policy namely the credit channel, interest rate channel, exchange rate channel and asset price channel

- 1. Interest rate channel** - is the most important channel in market based economies. It talks about changes in the aggregate domestic demand and inflation due to changes in the interest rates. A change in the short term nominal policy interest rate leads to a change in the long term interest rates. Lower nominal rates lead to lower real rates.

The resultant decrease in cost of credit enhances consumption and investment which leads to more output and rise in prices.

2. **The quantum channel** - the credit channel supports and magnifies the effects of the interest rate channel. This channel depends on the availability and amount of lending the bank does, which then impacts interest rates in turn affecting asset prices. It also operates through the affect of cash flows and the net worth of the borrowers which is called the “broader” credit channel or the net worth channel. For economies which are dominated by banks, the narrow channel plays an important role while it is the broad channel which is suitable for financially dominated economies.
3. **The asset price channel** - the effect of change in the interest rates and how it leads to a change in assets like real estate and equity prices. These lead to the “wealth effect” in so far that the market valuations of financial liabilities and assets increases/decreases, which affects consumption and investment.
4. **The exchange rate channel** - an increase in the domestic interest rates lead to the appreciation of the domestic currency which in turn has a direct implication on the domestic prices and makes imported goods cheaper and leads to a fall in aggregate demand of goods domestically produced as exports lessen.

These channels are not exclusive and there is a high level of interactivity and interdependence among them. The importance of these channels depends on the type of economy and progress at any given point of time. Among other things, it depends on the state of the financial sector in the economy, major developments, transparency, and monetary policy instruments etc.

1.2 Objectives of the study

Primary: To study the monetary policy of India and its transmission.

Secondary: To study rationale behind policies implemented in India and further to compare it with monetary policies of other economies.

This research paper enlightens the reader about the monetary policy of India, its impact on the economy with changing dynamics vis-à-vis climate change, domestic factors and global factors. It focuses on transmission of policy and the changes it brings about in the economy. It also talks about post financial crisis of 2008. This paper provides a better understanding of the effects of monetary policy on the growth of Indian economy. It takes into account the recent maneuvers taken by the Indian Authorities as well as that of other economies to tackle the global slowdown.

2. LITERATURE REVIEW

IMF Working Paper (Middle East and Central Asia Department) on Inflation Targeting and Monetary Policy Transmission Mechanisms in Emerging Market Economies (October 2011) by Sanchita Mukherjee and Rina Bhattacharya states that they empirically examined the operation of the traditional Keynesian interest rate channel of the monetary policy transmission mechanism in five potential inflation targeting economies in the MENA region and compared it with fourteen inflation targeting (IT) emerging market economies (EMEs) using panel data analysis. Contrary to some existing studies, the empirical results suggested that private consumption and investment in both groups of countries are sensitive to movements in real interest rates. Moreover, they found that the adoption of IT did not significantly alter the operation of the interest rate channel in IT EMEs. Also, the interest rate elasticity of private consumption and private investment vary with the level of development of the domestic financial market. Finally, capital account liberalization has opposite effects on private consumption and private investment in the two groups of countries.

The Paper on Monetary Transmission Mechanism Prepared by Peter N. Ireland states that the monetary transmission mechanism describes how policy-induced changes in the nominal money stock or the short-term nominal interest rate impact real variables such as aggregate output and employment. Specific channels of monetary transmission operate through the effects that monetary policy has on interest rates, exchange rates, equity and real estate prices, bank lending, and firm balance sheets. Recent research on the transmission mechanism seeks to understand how these channels work in the context of dynamic, stochastic, general equilibrium models.

The BIS Working Paper “Research on exchange rates and monetary policy: An Overview” (June 2005) by Jeffery Amato, Andrew Filardo, Gabriele Galati, Goetz von Peter and Feng Zhu reviews research carried out on exchange rates and monetary policy by central banks that participated at the Autumn Meeting of Central Bank Economists on “Exchange rates and monetary policy”, which the BIS hosted on 28–29 October 2004. A part of the paper focuses on the approaches that central banks have found most useful in modeling exchange rate behavior. The paper describes efforts to explain exchange rate behavior ex post and to forecast its future evolution ex ante. It then summarizes central banks’ recent research on the linkage between exchange rates and inflation, output, profits and the current account. The main models and methodologies, the main empirical results and the key challenges ahead

are highlighted. The second part of the paper is devoted to research that examines the actual experience that countries have had in incorporating the exchange rate into their monetary policy decisions, and the main lessons learned.

The paper on Monetary Policy of India by Damji B. H. from Dept of Economics, D.B.F. Dayanand College of Arts & Sci., SOLAPUR states about the Reserve Bank of India being the main monetary authority of the India. RBI formulates implements and monitors the monetary policy as well as it has to ensure an adequate flow of credit to productive sectors. Objectives are maintaining price stability and ensuring adequate flow of credit to productive sectors. The institution is also the regulator and supervisor of the financial system and prescribes broad parameters of banking operations within which the country's banking and financial system functions. The national economy depends on the public sector and the central bank promotes an expansive monetary policy to push the private sector since the financial market reforms of the 1990s. Nowadays Reserve Bank of India is facing challenges while formulating monetary policy. On one hand it has to promote the credit creation in order to keep continue the flow of capital throughout the country and on the other hand it has to contain the inflation. The research paper deals with the monetary policy of India and issues related to it.

The paper on Monetary Policy Rules in Emerging Market Economies: Issues and Evidence reviews the recent conduct of monetary policy and the central banks' interest rate setting-behavior in emerging market economies. A standard open economy reaction function has been used, and a test is done on whether central banks in emerging market economies react to changes in inflation, output gap, and the exchange rate in a consistent and predictable manner. In most emerging market economies, the interest rate responds strongly to the exchange rate; in some, the response is higher than that to changes in the inflation rate or the output gap. According to the paper the result is robust to alternative specification and estimation methods. This highlights the importance of the exchange rate as a source of shock and supports the "fear of floating" hypothesis. Evidence also suggests that in some countries the central bank's response to a negative inflation shock might be weaker than to a positive shock.

3. METHODOLOGY

Descriptive research is conducted using Secondary data. Qualitative analysis is done on the secondary data. The data for collating the research are sourced from:

1. Publicly available documents issued by RBI,
2. News articles;
3. Other related research papers
4. Documented group discussions and interviews (panel discussions among highly qualified guests including ministry officials viewed on the television) are used to support the project.

The subject of our study is influenced by the global economy, domestic economy, climate change and other factors and events affecting the entire world. An always-changing attribute of the above mentioned factors makes it difficult to conduct the study spanning a decade. Hence, the year 2010-2015 has been a major focus of this paper.

4. DATA ANALYSIS

4.1 Introduction to the Case

In India, as in many nations, the monetary policy structure has developed over time keeping in mind the financial sector developments, the need of the economy, the progress of the economy and basically changes and evolution in the transmitting means of the policy.

The provisions of the RBI Act, 1934 provides for the interaction between the fiscal and monetary policy in India. Before independence, the British government adopted a policy of being neutral fiscally. It was after independence that the relevance of monetary and fiscal policy interaction received more importance due to the increasing role of the RBI. It is just very recently that India has recognized the importance of a sound monetary policy. In the early era, monetary policy was used to complement the fiscal policy. It came after the fiscal policy and had to be accommodating accordingly. In fact, there was a time during the 2nd five year plan that the sole purpose of the monetary policy was to act as a mechanism for deficit financing for the government. Thus, the functioning of the monetary policy was decided by the amount of fiscal deficit. This feature popularly referred to as the “Monetization” of the deficit which led to more and more printing of money ultimately leading to inflation and loss of control of the money by RBI in circulation in the economy. Apart from this, the RBI also subscribed to the securities issued by the government. This led to a lot of damage in the economy on the dual fronts of an increasing deficit and ineffective monetary policy. Finally, in the 1970s, RBI directed efforts towards lending of credit. The basic aim was to keep the government separate from the financial functioning of the economy. Then on recommendations of the Chakravarty Committee, the policy strategy turned towards monetary targeting approach from the credit planning one. Another important step taken in the 1990s was reducing and ultimately stopping monetization of the government debt thereby forcing them to plan and spend. The FRBM Act of 2003 further forbade the RBI to subscribe to government securities in the primary market starting from 1st April 2006. However, till the time a high fiscal deficit prevails in the economy, the monetary policy cannot be totally independent of the fiscal policy.

4.1.1 Changes in the Monetary Policy Operations:

With the advent of reforms and liberalizations, the entire structure became more market driven and transparent. Interest rates, exchange rates etc. were all market determined.

The focus of the RBI was to manage liquidity and it moved from direct to indirect instruments respectively by the late 1990s. In 1999, RBI started with the LAF (liquidity adjustment facility). The introduction of Liquidity adjustment facility in India was on the basis of the recommendations of Narsimham committee on banking sector reforms. In April 1999, an interim LAF was introduced to provide a ceiling and the fixed rate repos were continued to provide a floor for money market rates. As per the policy measures announced in 2000, the Liquidity Adjustment Facility was introduced with the first stage starting from June 2000 onwards. Subsequent revisions were made in 2001 and 2004. When the scheme was introduced, repo auctions were described for operations which absorbed liquidity from the system and reverse repo actions for operations which injected liquidity into the system. However, in international nomenclature, repo and reverse repo implied the reverse. Hence in October 2004 when revised scheme of LAF was announced, the decision to follow the international usage of terms was adopted. This greatly helped in developing the interest rate as a mechanism for transmitting monetary policy. This was further enhanced in 2011 with the recognition of the weighted average overnight call money rate as the actual target of monetary policy.

4.1.2 LAF Framework

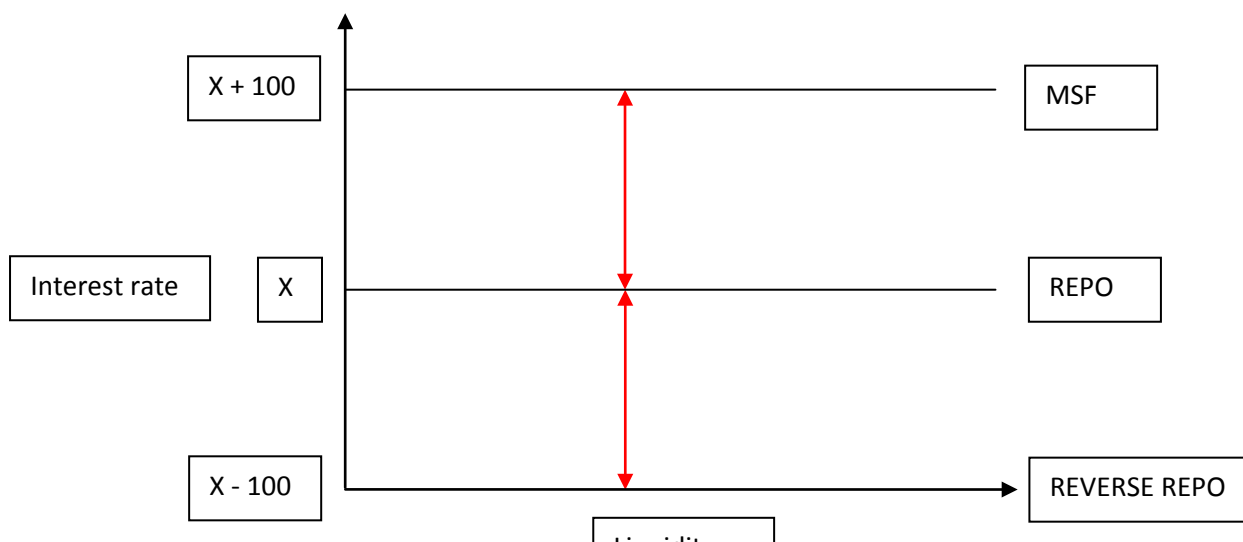


Figure 4.1 LAF Framework

The new version of LAF gives greater importance to the interest rate channel. What this implies is that once the repo rate is modified, it affects the overnight interest rate (which is the operational rate) and then gets transmitted through the term structure of rates along with the bank lending rates. It has also been observed that, barring the year 2008-09- which was the year of the global financial crisis, interest rate instruments like repo rate have been used more than the CRR.

4.1.3 Taylor Rule

Taylor rule is used by the RBI to set interest rates for the short term in order to cater to its dual objectives of economic and price stability. Taylor rule is a monetary-policy rule that stipulates how much the central bank should change the nominal interest rate in response to changes in inflation, output, or other economic conditions. This can be written as:

$$i_t^* = r_t^* + \pi_t + \beta(\pi_t - \pi_t^*) + \gamma(y_t - y_t^*) \dots\dots\dots (1)$$

Where, i_t^* = short-term (target) nominal interest rate, π_t = rate of inflation, π_t^* = desired rate of inflation, r_t^* = real (equilibrium) interest rate, y_t = real GDP growth rate and y_t^* = potential real GDP growth rate. From the Taylor rule specification, one can define 'neutral' rate of interest i_t^* as the short-term interest rate for which the economy is growing at its potential level and inflation is at its desired level. Hence, 'neutral' rate of interest $i_t^* = r_t^* + \pi_t^*$.

Figure 4.2 Taylor Rule Equations

Basically, this rule says that the short term interest rates should be tweaked in accordance with the difference between actual and targeted inflation and the difference between the expected and actual output. It is the combination of inflation and output gap that should be the determinant of the policy rate that would make the economy function up to its potential without leading to inflation.

Taylor assumed both β and γ to be 0.5 each to assign equal weight age to both inflation and growth objectives.

4.2 Data Analysis

4.2.1 The Channels Of Monetary Transmission:

There exist 4 major channels to transmit monetary policy namely the credit channel, interest rate channel, exchange rate channel and asset price channel.

These channels are not exclusive and there is a high level of interactivity and interdependence among them. The importance of these channels depends on the type of economy and progress at any given point of time. Among other things, it depends on the state of the financial sector in the economy, major developments, transparency, and monetary policy instruments etc.

4.2.2 Transmission and its impacts:

The RBI in 2004 studied the transmission of monetary policy and found that it takes about 6 months for the interest rate shock to percolate to output and inflation. While inflation is not directly affected by the interest rates, it is more correlated to the exchange rate channel. Here, an increase in the interest rates leads to appreciation of the currency which impacts inflation.

Key findings of the study:

- The impact of interest rate on growth is strongly negative along with the main components of growth with a lag of one-two quarters. With a 1 % increase in the interest rates, the overall GDP growth gets affected negatively by as much as 0.28%. The lag effect is usually of 2 quarters while the long term effect is of 0.39% respectively
- Even lending apart from food credit has a positive and major impact on the GDP. This implies among other things that both the interest rate channel and credit channel are important transmission tools.
- Worldwide activity also has an important effect on domestic activity. A 1% increase in the world's GDP increases the non-agro based GDP in the long term by as much as 2.25%.
- Appreciation of exchange rate weakens the economic activity with a delay of one-two quarters. In fact, a 10% appreciation of the currency decreases the real GDP by 0.40% and non- agro based GDP growth by 1.20% in the long term.
- The price of oil has a negative impact with a delay of one to four quarter. A 10% increase in the international price of crude oil decreases GDP by 0.10% while leading to a 10% increase in domestic inflation.
- A 1% increase in agro output increases industrial and services sector growth by 0.17% in the long run. This basically proves that agriculture still remains the life support of the population and the real driving force of the economy with a vast number of people still employed in it.
- Deficits have a negative impact on the economy. It's seen that a 1% increase in the fiscal deficit affects the GDP negatively by 0.24% after four quarters.

Thus, the monetary policy followed by the RBI does have a dampening impact on inflation. However, this effect is modest at best in spite of tightening, it remains high persistently and this could very well be caused by structural inefficiencies and supply side constraints and dependency on commodity prices.

It is said that one of the corner stone of the macro economics of an open economy is the “Mundell Fleming” Model. It gives a method of amalgamating the rate of exchange in a multiple market equilibrium study. It also delivers the message that for a flexible exchange rate economy, the monetary policy is more important and effective than the Fiscal policy.

Mundell Fleming & Flexible Rate Of Exchange: A Pictorial Study

Given an open economy with a flexible rate of exchange and capital flows which are perfectly elastic, an increase in the supply of money (nominal) shifts the LM curve to right causing currency devaluation. This leads to increase in price of imported goods provided the markets are competitive. This causes a reduction in the real money supply thereby decreasing the increase in output wanted by the initial increase in the money supply. In this case, the efficiency of monetary policy is less than one; the effectiveness index is further reduced if capital flows are not perfectly elastic in terms of variation between external and internal interest rates. It can be seen as follows:

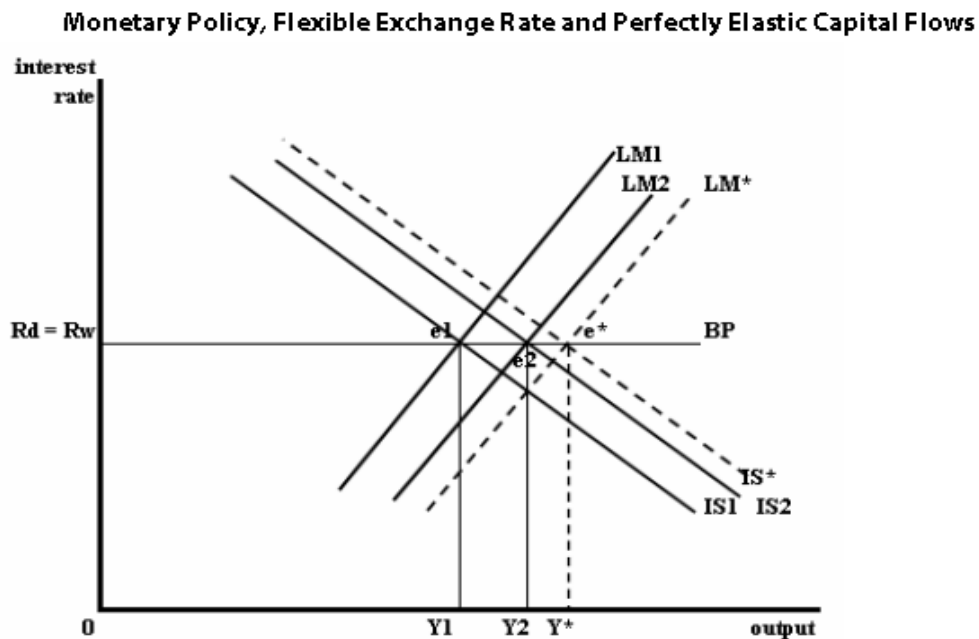


Figure 4.3 Mundell Fleming Model

In short, if capital flows are not perfectly elastic, there is an increase in the supply of money: 1) devaluation adds to the price level, decreasing the expansionary effect of the nominal money increase; & 2) the IS curve and the expansion increases the domestic interest rate, and both decrease the effectiveness of monetary expansion to increase output.

Key Findings:

- After a policy rates change, it can be seen from deposit and lending rates that the interest rate channel and credit channel create a hybrid known as the policy rate channel which is effective in India
- When short term rates are changed, it leads to a change in the medium term interest rates after a delay. Thus, we can firmly state that there exists an inter linkage between the short and medium term interest rates.
- The speed of economic activity in the industrial sector is surely affected by foreign demand, stock price behavior, and domestic demand pressure.

4.2.3 The Dilemma

The classic dilemma faced by policy authorities of India is – to curb inflation and risk acting against the recovery, or make such an arrangement that the inflation and growth is within the expected range. In India, the monetary policy is carried out in such a manner that the inflation is curtailed within the threshold range of 5%. This fact can be easily noticed from the reaction of the financial houses and market to the monthly WPI index.

Inflation projection plays a crucial role in deciding and carrying out monetary policy in modern times. The credibility of any country's monetary authority is derived from its commitment to keep inflation figured within the expected range over a finite time period. Monetary authority will have a better control if the inflation is kept within limits. If the authority raises the expectation for short term, it can be deduced that there will be inflationary pressure in the medium term.

Low tolerance and great impact of the monetary policy is the case in developing countries, like India.

Talking about developing countries, inflation tolerance is very low in India. And within the overall inflation, since most of the population spends most of their income on food items, the least tolerated inflation is food price inflation. During the period of last decade,

food price inflation figure exceeded the headline inflation figure measured by wholesale price index. This gap has become all the more glaring in recent times. Currently, this continuing rise in food price inflation has become a major cause for concern for policy makers in India.

Traditionally, fluctuation in food prices is analyzed by the study of supply and demand gap. But in recent time, without undermining this traditional approach, recent literature has given more emphasis on impact of macroeconomic variables, especially financial, monetary and factors in agricultural prices [for example, Orden and Fackler (1989); Saghaian, Reed and Marchant (2002); Peng, Marchant and Reed (2004); and Asfaha and Jooste (2007)].

The basic findings of these studies are:

- Agricultural prices have more impact and give rise to inflationary shocks than non agriculture commodities;
- In the short run, Monetary shocks can lead to overshooting in agricultural prices from their long-run equilibrium
- In economies which have less developed financial markets, money supply as instrument of Monetary policy have a much stronger impact on agricultural prices than interest rates.

The main issue to understand is, whether agricultural and non-agricultural item price behaves proportionately to monetary policy or not. As per traditional theory, since agricultural prices are more flexible to money supply they respond faster as compared to non-agricultural prices, which are generally relatively inflexible. The reason for agricultural prices are more flexible is that agricultural commodities are more standardized and show lower transaction cost than other good like manufactured goods. Hence, agriculture prices are characterized by short-term contracts and respond more quickly to monetary changes than the prices of other goods (Bordo, 1980). Even in the traditional approach of supply and demand imbalances, since agricultural production takes a much longer time, the short term change in demand is reflected in prices than change in the volume of production. The three long-run relationships are: i) impact of money supply and call rate on food prices; ii) impact of money supply and call rate on manufactured prices; and iii) impact of money supply and call rate on exchange rate. The below mentioned observation can be made. First, increase in money supply leads to rise in food prices, but not manufactured prices. On the contrary, increase in call rate has a strong negative impact only on manufactured goods prices.

In other words, monetary policy with focus on interest rate channel is more effective on manufactured goods and quantum channel is effective for food process. But when we study impact of exchange rates on prices, it is not clear which currency appreciation leads to increase in food prices in short run, and on the contrary the impact is negative for manufactured goods.

Second, with rise in manufactured and food prices there is hike in call rate, the response of money supply is asymmetric. In normal scenario, rise in supply of money will lead to rise in prices, but if the relationship between price rise and supply is asymmetric then rise in prices will give rise to demand. In the long-run, increase in call rate will lead to fall in prices of just manufactured products and increase in supply of money will lead to rise in prices of both the commodities i.e. food and manufactured products. However, based on both cross-country evidences and theoretical arguments, the influence of money supply is more on increase in food prices than on the price of manufactured goods. Still, increase in money supply will prove wrong the long held believe that increase in money supply have no impact on food prices. In the short-run, the price of both product and food products overshoots. The call rate has no statistically significant negative impact.

On the contrary, money supply has no statistically significant positive effect, while call rate has a negative impact on manufactured prices. While increase in both food and manufactured prices induces call rate hike, money supply shows an asymmetric response by way of increasing with rise in food prices and decreasing with the rise in manufactured prices. This could be attributed to demand for food being highly price-inelastic while that of manufactured goods being elastic.

4.2.4 Monetary Policy in EMEs: Lessons learnt from the Global Financial Crisis

Developing nations took a different stand during the financial crisis of 2008 -2009 when, instead of tightening their monetary policy, they loosened it up to promote more growth. This was a surprise move from the usual hiking of interest rates which the central banks did to provide more integrity to the monetary policy and to protect the value of their individual currencies and also to avoid “capital flight”. In developed nations, the monetary policy tends to be counter cyclical while in EMEs these policies are pro-cyclical.

An adequate response to shock requires policies to be countercyclical to foster economic recovery and growth. But, such policies have seen to make the crisis worsen in

developing nations until recently. The reason for EMEs to follow pro cyclical policies stems from the fact that these nations are not yet fully developed and thus more risky. Hence, in times of crisis, investors want a safe return and start pulling out money from these nations. To prevent this 'flight' of capital, the EMEs have to increase their policy rates even though it may lead to a whole lot of other problems on the inside. Inflation targeting is beneficial as it leads to a lower focus on exchange rate management thus allowing the policy to be more focused on the domestic economy activities.

However, as witnessed in the recent 2008 crisis, these nations also followed policies counter cyclical in nature, perhaps signaling that the times have changed and monetary policy is involved a lot in these nations too. The reasons to this change can be attributed to lesser vulnerabilities, more opening of trade and capital, more interrelation between countries etc. The financial reforms have also exacerbated these phenomena to a very large extent. Another reason can be attributed to the policy of inflation targeting adopted by the economies. One of the major reasons is also greater transparency in the working of the monetary policy leading to more confidence and faith of the investors in the country. If a country has an opaque monetary policy, naturally investors are wary of entering it and the nation in turn has to compensate by increasing the interest rate. Thus, as long as the nations have strong credibility and continue to be more transparent and introducing more sophisticated systems, the investor confidence would keep on increasing.

Usually, the developed countries loosen their monetary policy which leads to an increase in liquidity to narrow the gap between the reduced output and employment and to get people spending again. In developing economies however, the loosening of the policy is guided by other factors. One of the major ones being that a decrease in the interest rate leads to a currency depreciation and harms the imports. It also harms if the nation has taken a lot of short term debt in foreign currency as the repayment obligation increases. It is these limitations that make the countercyclical policy so undesirable in emerging economies. These nations are more fearful about protecting the value of their currencies as well.

4.2.5 Summary Of What Was Happening In India During 2010-2011:

- Inflation was unremittingly high during 2010- 2011.

- RBI tightened the monetary policy progressively beginning in March 2010. In total, the effective rate was increased by 5.25% (525 bps) from 3.25% in March 2010 to 8.5% in October 2011.
- During this time, the growth as predicted slowed down while the inflation was persistently high. This slowdown can also be attributed to the slowdown in the global economy due to the Euro crisis along with domestic issues like policy paralysis.
- At the same time, fiscal deficit was also burgeoning to a record high level which effectively curtailed the RBI's ability to control inflation.
- Some even felt that the tightening of the monetary policy 13 times was not having the required impact. Rather it was cutting into growth more than it was affecting inflation.

4.2.6 Inflation Targeting and Monetary Policy Transmission Mechanisms in Emerging Market Economies Like India

It has been seen that interest rates have a significant impact on private sector activity. Corporate are affected directly by any hike/decrease in policy rates due to affect on their borrowings. The real lending rate has an important and negative impact on private investment. It is thought although but not proved that the policy of inflation targeting which is banned all across the world is less likely to be effective in developing economies because the traditional interest rate channel is weak. As the financial sector of any economy starts developing, the wealth effect dominates the substitution effect. However, financial sector development has no effect on investment either directly or indirectly through the traditional channel.

The opening up of capital account has a positive impact on the economy in terms of creating a more conducive business environment. More and more developing market economies are going towards "inflation targeting" as a guide for monetary policy actions. IT involves targeting inflation directly as opposed to tactics that look for to achieve low and stable inflation through aiming at transitional variables. Under IT, the key instrument to affect the monetary policy is the short term interest rates. When these are raised, it leads to a change in the policy rates which in turn lead to a change in the bank deposit and lending rates. This leads to a change in the consumption and investment pattern and consequently on aggregate demand. All of these lead to a change in the domestic economy activity level which subsequently leads to a change in inflation.

Basically, short term rates affect aggregate demand and inflation through variables like cost of capital, bank credit availability, exchange rate, balance sheet of corporate and household, wealth aggregates etc.

Developing economies have certain features which set them apart from developed economies:

- Their under-developed financial systems.
- Dominated by banks and a large share of households and SMEs lacking access to financial services;
- Weak judicial systems difficult to enforce property rights, reduces investment opportunities for banks;
- Banks operate in an oligopolistic environment, which limits response of lending rate to monetary shocks.
- Interbank markets usually very thin.
- Bank loans and T-bills are highly imperfect substitutes because of thinness of financial markets and lack of competition among banks.
- Shocks to money supply occur mostly through exchange rate.

4.2.7 Estimating Impacts of Monetary Policy on Aggregate Demand in India

The channels through which monetary policy of India influences output and prices are:

- Interest rate channel
- Exchange rate channel
- Asset price channel
- Credit channel

The impact of monetary policy shock on inflation occurs with some lag after the impact on GDP growth. Inflation starts declining only after the second quarter and the maximum impact is felt in the fourth quarter with a decline of about 0.29 % below the baseline before dissipating completely by the eighth quarter.

A shock in call rate leads to depreciation in REER (Real effective exchange rate) from the second quarter by about 0.9 per cent below the baseline before dissipating slowly. It is interesting to note that hike in call rate leads to depreciation in REER. It signifies that interest rate differentials perhaps do not play any important role in the exchange rate determination in India. This is mainly because debt component of capital flows which are sensitive interest rate differentials constitutes a small proportion of total capital flows. On the other hand, non-debt capital flows such as FDI and FII equity flows which roughly constitute three-fourth of total capital flows are insensitive to interest rate differentials. These non-debt components of capital flows would be more strongly determined by macroeconomic fundamentals and policy environments. Thus, hike in call rate could be associated with negative sentiments about the domestic economy in terms of inflationary pressure and the dampening effect on growth, leading to slowdown in capital inflows or even outflows and, thus, to currency depreciation.

About one-third of the fluctuation in the growth of aggregate demand (real GDP growth) is explained by shocks in policy interest rate. There is a negative impact on the growth of all the components of aggregate demand, barring the initial positive impact on exports growth which follows from depreciation in real exchange rate. The maximum negative impact is felt on investment growth and imports growth, while the impact on the growth of private and government consumption, particularly the latter, is rather very small.

The maximum impact on the growth of private consumption is only about 0.38 per cent below the base line in the second quarter and dissipates by the eighth quarter. The cumulative impact after two years is about 1.1 per cent below the baseline. In contrast, the maximum impact on investment growth, which is also felt after two quarters, is about 1.5 per cent below the baseline, roughly four times the impact on private consumption growth. The cumulative impact is about 5 per cent below the baseline after two years.

It is implied that private consumption or household savings in India are less sensitive to interest rates. In this context, based on historical data, Salam *et al.* (2000) had found household savings in India to be less sensitive to the interest rate. Another reason for greater insensitiveness of private consumption to interest rate could be much lower level of households' indebtedness as compared to the developed countries. On the other hand, investment is much more sensitive to interest rate, both directly as it would raise the cost of capital and indirectly through changes in real output, price and exchange rate.

Part of the higher impact on imports growth than exports growth may be explained by the decline in investments growth, which is understood to have high import content in India. A greater decline in imports growth than exports growth would imply higher/lower net exports/imports growth, which would reduce the monetary policy impact on aggregate demand through hike in interest rate.

With regard to growth in government consumption, the negative impact is seen only in the second and the third quarter, which thereafter turns mildly positive before convergence.

It has been seen that a lot of developing nations have a high amount of public sector ownership of banks to a varying but nevertheless high degree. After the recent global financial crisis, even the developed nations have increased the public sector ownership of banking assets. An example of this is the UK.

India is an emerging nation still battling a lot of problems common to the developing countries in terms of the advancement of the financial sector. One of these shortcomings is the absence of a well developed bond market in terms of depth and liquidity. Hence, banks remain the primary source of credit for a lot of households as well as corporate. Banks also play a large role in transmitting the policy of the RBI. Another feature of the banking sector is the existence of both private and state owned banks along with the foreign ones, all working on the same level. Also, it has been observed that the state owned ones have a higher degree of leeway in determining decisions regarding lending, selling of shares to players etc all resulting into them opening themselves up for more inspection

4.2.8 Monetary Regime Transition in the Emerging World

Inflation Targeting - the criteria which Central Banks follow to set interest rates is fast losing sheen. This is seen not only in developed economies but also in emerging economies all across the globe. Mark Carney, Governor of BOE (Bank of England) announced that he might change BOE's policy setting directives as soon as he stepped on board. In Japan, the liberal democrats won the General Elections on the promise to adopt a more expansionary monetary policy. In the US too, Fed vowed to keep interest rates low till unemployment goes down to 6.5%. These tactics come as no surprise from the developed nations as there was a talk of moving away from this type of policy setting since the onset of the global financial crisis. But what is surprising is emerging economies moving away from it as well.

Central banks in growing economy of Asia and region of Latin America had three problems with curbing inflation from the outset, but moving to nominal GDP targeting solves none of them. The first problem deals with capital inflows and second is exchange-rate appreciation. When central bank's of rich countries cut interest rates, capital starts circulating south and east. Some inflows are healthy and always welcomed. But when the flow takes the shape of flood, the currency strengthens sharply. This makes the export from the recipient country less competitive. If any country increases interest rates then it gives rise to capital inflow and on the contrary decrease in interest rate makes the country vulnerable to capital outflow. Faced with this particular dilemma, some of the countries in emerging-market countries have started exchange-rate intervention, and then to raising banks' reserve requirements, in order to make foreign borrowing less attractive. This is the main problem that concerns the composition of output (traditional versus non-traditional exports), not just its level. Moving to nominal GDP targeting would not make a difference. The second problem is faced by rich and middle-income nations' central banks: how to make that monetary policy take care of financial stability. Inflation targeting mainly deals with the prices of goods and services, not with the prices of financial assets. If "irrational exuberance" sets in and a bubble develops in real-estate or equities markets, well, so be it, the standard theory maintains. The Central Banks of many emerging-market countries' are not comfortable with this & are adopting changes in reserve requirements and loan-to-value ratios, among other measures, to prick asset-price bubbles in their early stages.

The final concern of the central banks is its role as lenders of last resort in case of crisis. This job is very important – and especially difficult – in emerging markets, because a big share of debt, both public and private, is held in foreign currency. Due to which, lending in crisis situations makes it mandatory for using international reserves and also provide foreign currency liquidity. This, too, is alien to the standard target-inflation-and-float-the-currency regime. But it would be just as alien to a system in which the central bank targeted nominal GDP and the currency floated. These considerations suggest that the way out does not lie in moving from one simple, one-size-fits-all rule to another.

Emerging markets need a monetary-policy regime that takes explicit account of capital-flow volatility, asset-price misalignments (including the exchange rate, which is the price of foreign currency), and the resulting financial instability.

Standards for Non-Standard Monetary Policy (ECB focused)

A very noticeable outcome of the global financial crisis was the adoption of various ‘unconventional’ monetary policy tools- credit support, credit easing, quantitative easing, interventions in currency and securities markets, and the provision of liquidity in foreign currency – being a few. Once standard measures like lowering interest rates cannot be exercised, Central Banks use these tools to direct the economy. But after a while, when Central Banks want to come back to standard measure they have to first unwind these measures and only then can they raise interest rates. During the financial crisis, market functioning was impaired, at times very profoundly. Non-standard measures helped to clear standard measures’ transmission path. Standard measures depend on the medium- and long-term outlook for price stability, whereas non-standard measures depend on the degree of dysfunction of the monetary-policy transmission mechanism. The ECB’s first non-standard measure – unlimited supply of liquidity at fixed rates against appropriate collateral – was introduced in August 2007, when the minimum bid rate of its main refinancing operation was 4.25% – nowhere near the zero bound. Non-standard measures were required to ensure that the monetary-policy stance would be more effectively transmitted to the broader economy.

Unconventional measures, if not carefully monitored, might have the unintended consequence of creating an abnormally benign financial environment for markets, commercial banks, and sovereigns. This, in turn, could delay needed improvements in financial regulation, balance-sheet repair by banks, structural economic reform, and fiscal adjustment. As a result, non-standard measures must satisfy five conditions:

- First, they must be as commensurate as possible with the degree of market dislocation and disruption of market that they aim to counter i.e., the measures must be tailored to avoid the total disruption of markets.
- Second, the measures must be accompanied by forceful messages to commercial banks to address their medium-term recapitalization and balance-sheet-repair issues.
- Third, the measures must be accompanied by forceful messages to the governments concerned. When non-standard measures are required due to loss of confidence in sovereign debt, such messages must highlight the risk of future difficulties.

- Fourth, Union institutions, as well as the member states, must be urged to strengthen economic governance, including through close monitoring of individual countries' economic and budgetary policies.
- Finally, to the extent that the combined non-standard measures of the advanced economies' central banks are creating a very substantial structural change in the global economy's monetary and financial environment, it seems necessary to call for the appropriate reinforcement of global governance.

The ECB's decision in December 2011 to launch its long-term refinancing operation, which supplies low-cost three-year financing to commercial banks, meets these five conditions. The LTRO's duration, in particular, is appropriate, given the growing threat of major dysfunction in the European banking sector in October, November, and at the beginning of December 2011.

The central banks of the countries in the advanced market economies (AME's) have started one of the best economic experiments of all time - radical easing of monetary policy. In the aftermath of the economic and fiscal crisis that started during the summer of 2007, they brought down key policy rates effectively to the zero lower bound (ZLB). Even throughout the great Depression during 1930's, policy rates and long term rates in most affected countries (like the US) were never brought down to such low levels.

Will Ultra easy monetary Policy stimulate the real Economy?

Stimulating monetary policies are more commonly known as "Keynesian". However, John Maynard Keynes himself wasn't convinced with concept of ultra easing of money and what role it can play in restoring the growth.

Radical straightforward financial Policy

When the crisis initially started in summer of 2007 the reaction of AME central banks was quite diverse. Some, like ECB, maintained the stand on resisting inflation which was rising due to upper costs for food and energy. Others, just like the Fed, brought down policy

rates sharply and by unexampled amounts. However, by the tip of 2008 with the inflation showing downward trend even ECB started decreasing rates to terribly low level.

However, all the central banks face at least 2 difficulties with such target bound proposals. The first task is creating the individual credibility once the monetary authorities' area for maneuver has already been reduced by the zero lower bounds (ZLB). The second one is even more complicated, the chances that inflationary level doesn't seem to be depended on central banker's statements of fine intent. Historical data and observations regarding inflation, overall perceptions regarding the central bank's ability and temperament to act, and all other concerns might have a role to play. The significant proof doesn't exist to suggest a movement in any direction.

Discount Window

Central banks normally offer a discount window, where commercial banks and other depository institutions are able to borrow reserves from the Central Bank to meet temporary shortages of liquidity caused by internal or external disruptions. This creates a stable financial environment where savings and investment can occur, allowing for the growth of the economy as a whole.

The interest rate charged (called the 'discount rate') is usually set below short term interbank market rates. Accessing the discount window allows institutions to vary credit conditions (i.e., the amount of money they have to loan out), thereby affecting the money supply. Through the discount window, the central bank can affect the economic environment, and thus unemployment and economic growth.

Currency Board

A currency board is a monetary arrangement that pegs the monetary base of one country to another, the anchor nation. As such, it essentially operates as a hard fixed exchange rate, whereby local currency in circulation is backed by foreign currency from the anchor nation at a fixed rate. Thus, to grow the local monetary base an equivalent amount of foreign currency must be held in reserves with the currency board. This limits the possibility for the local monetary authority to inflate or pursue other objectives. The principal rationales behind a currency board are threefold:

1. To import monetary credibility of the anchor nation;
2. To maintain a fixed exchange rate with the anchor nation;
3. To establish credibility with the exchange rate (the currency board arrangement is the hardest form of fixed exchange rates outside of dollarization).

In theory, it is possible that a country may peg the local currency to more than one foreign currency; although, in practice this has never happened (and it would be more complicated to run than a simple single-currency currency board). A gold standard is a special case of a currency board where the value of the national currency is linked to the value of gold instead of a foreign currency.

The currency board in question will no longer issue fiat money but instead will only issue a set number of units of local currency for each unit of foreign currency it has in its vault. The surplus on the balance of payments of that country is reflected by higher deposits local banks hold at the central bank as well as (initially) higher deposits of the (net) exporting firms at their local banks. The growth of the domestic money supply can now be coupled to the additional deposits of the banks at the central bank that equals additional hard foreign exchange reserves in the hands of the central bank. The virtue of this system is that questions of currency stability no longer apply. The drawbacks are that the country no longer has the ability to set monetary policy according to other domestic considerations, and that the fixed exchange rate will, to a large extent, also fix a country's terms of trade, irrespective of economic differences between it and its trading partners.

Hong Kong operates a currency board, as does Bulgaria. Estonia established a currency board pegged to the Deutschmark in 1992 after gaining independence, and this policy is seen as a mainstay of that country's subsequent economic success. Argentina abandoned its currency board in January 2002 after a severe recession. This emphasized the fact that currency boards are not irrevocable, and hence may be abandoned in the face of speculation by foreign exchange traders. Following the signing of the Dayton Peace Agreement in 1995, Bosnia and Herzegovina established a currency board pegged to the Deutschmark.

Currency boards have advantages for small, open economies that would find independent monetary policy difficult to sustain. They can also form a credible commitment to low inflation.

Other forms of monetary policy, particularly used when interest rates are at or near 0% and there are concerns about deflation or deflation is occurring, are referred to as unconventional monetary policy. These include credit easing, quantitative easing, forward guidance, and signaling. In credit easing, a central bank purchases private sector assets to improve liquidity and improve access to credit. Signaling can be used to lower market expectations for lower interest rates in the future. For example, during the credit crisis of 2008, the US Federal Reserve indicated rates would be low for an "extended period", and the Bank of Canada made a "conditional commitment" to keep rates at the lower bound of 25 basis points (0.25%) until the end of the second quarter of 2010.

Further heterodox monetary policy proposals include the idea of helicopter money whereby central banks would create money without assets as counterpart in their balance sheet. The money created could be distributed directly to the population as a citizen's dividend. This option has been increasingly discussed since March 2016 after the ECB's president Mario Draghi said he found the concept "very interesting".

A Comparison between India and Other Economies

India	Other Economies
<p>The Emerging economies like India tend to follow pro cyclical policies. This is due to the fact that emerging nations are still vulnerable and not very stable. But as witnessed in the recent 2008 crisis, these nations also followed policies counter cyclical in nature, perhaps signaling that the times have changed and monetary policy is involved a lot in these nations too. Reason can be attributed to opening of</p>	<p>Economies like US, China and Japan are slowing down. Most of them still reeling from the 2008 crisis.</p> <p>The USA had reduced the interest rates to zero in the face of high unemployment and low demand in the aftermath of the 2008 crisis.</p> <p>The Central bank of USA has recently increased the rate from an 8 year low of</p>

<p>trade, liberalization, interrelation between countries etc.</p> <p>Currently, India is on a path of stable growth leading the peers at 7.5% as on Jan 2016.</p> <p>Keeping in view the inflation situation in India especially food inflation, the Central Bank has cut rate to boost growth and domestic consumption.</p>	<p>almost zero percent interest.</p> <p>Due to interdependence of many nations on the US economy, the effect of the crisis was felt everywhere.</p> <p>China's growth story in coming to an end. It is moving from an investment to a consumption driven economy.</p> <p>Japan is possibly moving into a recession after 3 quarters of declining growth.</p>
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Table 4.1 Comparison between India and other economies

4.2.9 Monetary and Fiscal Policy Interaction in India

Monetary and fiscal policies have been used by different countries to attain macroeconomic stability. However, these policies often have a different end result in mind. While, the monetary policy is used for attaining low inflation, Fiscal Policy is aimed towards achieving high growth and employment at the cost of high inflation.

Nations have been known to employ the use of both these policies in a variety of forms, suitable to their needs, aimed towards the twin purpose of low inflation combined with conducive growth atmosphere and employment levels.

An example is the formation of the European Monetary Union (EMU) and the Stability Growth Pact (SGP), under which countries have their own fiscal policies but a common monetary policy. This, later on during the European Debt Crisis turned out to be a major hindrance in the nations finding their way out of the mess.

The global financial crisis of 2008 also underlines the importance of some form of coordination between the monetary and fiscal policy.

In developing nations, it has been seen that the monetary policy is often shadowed by the fiscal policy, acting as an afterthought to it. Thus, it is not accurate to talk about

coordination between these two as independence is a pre-requisite to coordination. However, irrespective of the independence, it is true that there exists interaction between these two forms of macroeconomic control.

The stages of the monetary and fiscal interaction in India:

Even after the elimination of automatic monetization of fiscal deficit and prohibition on direct borrowing of government from the Reserve Bank, fiscal policy continues to impinge on the outcome of monetary policy.

Monetary policy reacts strongly in a counter-cyclical manner by raising the policy rate. Fiscal policy response, on the other hand, remains largely pro-cyclical, i.e., fiscal deficit increases, before converging back in about two years.

Increase in fiscal deficit due to inflation could follow from price rise leading to increase in government expenditure more than that of revenue receipts. A number of studies in the Indian context in the past have found that price elasticity of government expenditure is significantly higher than the price elasticity of government receipts.

Fiscal deficit, typically associated with government not saving may subsequently lower the overall savings, and therefore, investment in the economy, leading to lower level of output. And rising fiscal deficit could lead to hardening of the borrowing cost of more efficient private sector, and thus, crowd-out private sector investment and lower output growth.

Monetary policy is highly sensitive to shocks in inflation and it responds swiftly in a counter-cyclical manner. However, the response of fiscal policy shows a pro-cyclical tendency to both inflation and output shocks, which perhaps explains as to why monetary policy responds strongly than otherwise it would have.

Expansionary fiscal policy is effective in raising the level of output over the potential level only in the short run. In the medium to longer term, however, fiscal expansion leads to economic slowdown.

Fiscal deficit ends up in decline in savings and investment within the economy over the medium term, besides crowding-out additional economical personal sector investment by government consumption.

4.3 Findings & Recommendations

Currently, India seems to be the bright spot among a gloomy global scenario. India is leading the growth charts against other major emerging economies. Reserve Bank of India has made growth projections for Indian economy at 7.4% for the current fiscal, a tad higher than 7.3% forecast by the World Bank. The 6th Bimonthly Monetary Policy Statement, 2015-16, announced by RBI Governor Raghuram Rajan has pegged the growth to quicken to 7.6% in the next fiscal. The RBI Governor said during the policy statement announcement "The Indian economy is currently being viewed as a beacon of stability because of the steady disinflation, a modest current account deficit and commitment to fiscal rectitude. For 2016-17, growth is expected to strengthen gradually, notwithstanding significant headwinds. Based on an assessment of the balance of risks, GVA (Gross Value Added) growth for 2016-17 is projected at 7.6%". He said the current momentum of growth seems reasonable, though below what should be expected over the medium-term. RBI stressed that the underlying growth drivers need to be rekindled to place the economy durably on a higher growth trajectory.

"The Reserve Bank continues to be accommodative even as it leaves the policy rate unchanged in this review, while awaiting further data on the development of inflation," Rajan said. Before the announcement of the Union Budget he added that the forthcoming structural reforms expected to be brought in with the intention to boost growth while controlling spending will create more space for monetary policy to support growth given the condition retail inflation remains at the targeted level of 5 percent by end of 2016-17.

RBI expects the growth in the next fiscal to strengthen gradually, despite of the significant headwinds. Weak domestic & private investment, concerns on stalled projects, excess capacity and sluggish external demand dampening export are considered headwinds.

"Expectations of a normal monsoon after two consecutive years of rainfall deficiency, the large positive terms of trade gain, improving real incomes of households and lower input costs of firms should contribute to strengthening the growth momentum," added the policy statement.

The revival of private investment, in particular, has a crucial role, especially as the climate for business improves and fiscal policy continues to consolidate, it said. RBI said the current account deficit and commitment to fiscal rectitude need to be maintained so that the foundations of stable and sustainable growth are strengthened.

Everyone is treading with a positive sentiment with especially after reports by RBI, World Bank and many others and Governor's confidence instilling statements.

The World Bank's new forecast says that India is "well positioned to withstand near-term headwinds and volatility in global financial markets" compared with other major emerging economies and predicts it will grow at 7.9% by 2018.

Monetary Policy Decision and Its Impacts

Reeling back to the fourth bi-monthly review of the monetary policy, 2015-16; RBI Governor Raghuram Rajan cut the repo rate by 50 basis points to 6.75 percent. This cut has taken the cumulative reduction to 125 basis points since January 2015.

The crucial factors that led to the rate cut and will further influence the policy stance are broadly defined under three heads: **low inflation, domestic factors and global factors.** (Low inflation is a domestic factor but its sheer importance made its way to another head.)

Low inflation: CPI-based retail inflation was at historically low levels. WPI too was low and in the negative territory. This is attributed to global commodity glut leading to fall in prices in the international market and adept handling to food items by the government. The price collapse made the CEA of India to argue that India is closer to the deflationary territory and hence the rationale behind the rate cut is in line with CEA's observations. RBI forecasted inflation for January 2016 to be 5.8 percent. The policy statement made it clear that the long

term target is to bring inflation level at 5 per cent by the end of 2016-17 fiscal. Hence, to spur growth and maintain price stability RBI has gone ahead with the rate cut.

In the first bimonthly monetary policy review, 2016-17, Rajan said “Inflation has evolved closely along the trajectory set by the monetary policy stance. With unfavorable base effects on the ebb and benign prices of fruits and vegetables and crude oil, the January 2016 target of 6 per cent should be met. Going forward, under the assumption of a normal monsoon and the current level of international crude oil prices and exchange rates, inflation is expected to be inertial and be around 5 per cent by the end of fiscal 2016-17. However, the implementation of the VII Central Pay Commission award, which has not been factored into these projections, will impart upward momentum to this trajectory for a period of one to two years.”

Domestic factors: RBI has given due consideration to all the local domestic factors before taking the monetary stance. It has factored in the domestic scenario of growth, liquidity, investments, production & service sector activities as well as monsoon expectations. Rainfall deficiency, uneven growth in the manufacturing sector, tepid aggregate demand were a concern and in the services sector, PMI remained in expansion for the second consecutive month on improving new business, but business expectations remain subdued.

RBI Governor sees rains playing a major role in enhancing economic performance. Better monsoon will lift farm output boosting rural incomes. Bigger rural incomes will raise demand for consumer goods. Also, farm equipment companies will see better demand in anticipation of higher farm output. Better Agricultural scenario will reduce food inflation pressure. Lower inflation will give more room for rate cuts. Rajan said “We are watching the development of inflation and we are also looking for signs of a good monsoon. As evidence builds up one way or the other, it will give us more information of how the trajectory of the monetary policy will be” speaking at the inaugural Kotak Family Distinguished Lecture at the Columbia Law School.

Global factors: RBI’s decision takes into account the global factors such as Fed Rate increase. The rate hike was widely anticipated. The FII's had already been pulling money (around \$2.5 bn) from equity market. This was one of the prevailing reasons for the continuous fall of stock markets.

The question that arises is whether there will be continuous outflows from Indian Market?

The differential between interest rates in the US and India is big, and a small hike in the US may not be attractive enough. But a series of hikes in interest rates in the US over a period of time will raise the borrowing cost for carry trade (borrow from US and invest in India), and thereby reduce their risk-adjusted return in India. On the other hand, the move taken by Reserve Bank of India to cut interest rates and that too twice by 25 bps each looks a bit alarming from this perspective. A cut in India and a hike in US further reduce their risk-adjusted return. Experts also say that this may make US bonds more attractive. The US is in any case considered a safe haven, and investors looking for stable returns will be more attracted towards US bonds.

Other external factors such as commodity glut due to sluggish Chinese demand which have helped India meet its fiscal consolidation plans and helped ease inflation. China's move from investment to consumption driven economy has led to depreciation of renminbi and some rough turmoil in the stock markets. Sluggish growth and recession like conditions in Europe and emerging markets like Brazil and Russia. All these international developments and their impacts on Indian trading have been factored in the policy change.

Policy Adding Momentum to Growth

The rate cut is a big positive step in this regard as lower interest rates will revive demand, thereby increasing capacity utilization of industry. This, in turn, will lead to revival of investment activity in the economy. Sectors that stand to gain directly are construction, real estate, FMCG, auto and consumer durables, where demand is primarily leveraged. As a result of revival in construction and real estate, demand for capital goods, steel and cement will also witness a recovery. Overall, this is a monetary policy that will kick-start the growth momentum in the economy and will go a long way in restoring investor sentiment.

Way Ahead

Economists believe the baseline view of growth is likely to hold true, but there may still be slippage on the government's fiscal deficit front on account of implementation of One Rank One Pension and the Seventh Pay Commission.

“Commodity prices are expected to stabilize in the year ahead, so with deflation in WPI likely to end soon, the deflator used for GDP calculations will moderate and lead to a higher growth rate. For 2016-17, even though it looks better on the growth front, there are pending payouts for One Rank One Pension and the Pay Commission. These would make fiscal deficit target challenging for 2016-17 and the assumption of 3.5 per cent fiscal deficit aim for next year by the RBI may see a shortfall at around 3.6 per cent,” Sonal Varma, Economist, Nomura India, said.

Analysts also expect the government to tighten up the slack in terms of providing a fillip to economic growth by passing soon some of the reforms through parliament.

Thirteen of 15 analysts said it was either 'very likely' or 'likely' that the government would pass the land acquisition bill, which would make it easier for businesses to buy land, or a goods and services tax (GST), which would transform the economy into a single market, by the end of this year.

Weak global demand, along with deflationary pressures abroad, and any reforms announced at the parliament's budget session in February will be key to the economic outlook over the next year, said Rishi Shah, economist at Deloitte.

The World Bank said India would benefit because of a reduction in external vulnerabilities, a strengthening domestic business cycle and a supportive policy environment. “Progress on infrastructure improvements and government exports to boost investment is expected to offset the impact of any tightening of borrowing conditions resulting from tighter U.S. monetary policy,” the World Bank report said. The tumbling price of oil, lower food-price inflation and a public-sector wage increase could help urban spending, it added, although consumption growth remains below long-term averages. Clouds on the horizon include possible stalling in legislative changes intended to make doing business in India easier, the bank said.

“High levels of nonperforming loans in the banking sector, concentrated in construction, natural resource and infrastructure sectors, could impede a pickup in investment if left unaddressed,” the report also said.

World banks views as on October 30th 2015:

- However, the World Bank did not think that eight per cent growth rate would come up even in 2017-18, as it said GDP growth would pick up to 7.8 per cent next year and 7.9 per cent in 2017-18.

When asked as to why the Bank did not cut its earlier projections, its country director Onno Ruhl told a press conference that key positive factors and negative ones about India's economy balance each other out. For instance, he said one of the key positive factors is that government has stepped up its capital expenditure, but negative development is that external environment has worsened. Low inflation creates room for monetary policy easing.

- Current account deficit to inch up to 1.4% of GDP in FY16 from 1.3% in FY15.
- States now responsible for 57% of spending (16% of GDP) against 46% in FY11.
- Direct tax base narrow, contributes 5.7% of GDP against 11.2% in Russia and 11.4 % in OECD (average).
- Indirect tax base reasonable, contributing 11.4% of GDP against 16.4% in Russia and 10.8% in OECD (average).
- Suggests bringing in alcohol, electricity, and real estate under proposed GST.
- Joining bigger regional trade agreement such as Regional Comprehensive Economic Partnership to serve India's interests.
- Both manufacturing and services need to create jobs

Having made four reductions in 2015, the Reserve Bank of India (RBI) will likely cut interest rates once more in the coming year, despite expectations that inflation will rise slightly above its medium-term target, a Reuters poll found.

The study finds that the current Indian scenario with respect to growth is blooming. Hence, it divulges about the relevancy and reliability of the current policy stance taken by the RBI. However, for the monetary policy to translate into growth on the ground, the transmission of rate cuts will be critical. While there will be an inevitable lag in transmission

of cuts in bank base rates, bond yields should come down much faster. RBI has delivered on a cumulative rate cut of 125 bps during the current calendar year. Now, the ball is clearly in the banks' court to respond with lower lending rates. With all the reports and announcements made by experts and authorities, the sentiments are positive and a further uptrend in economic growth is expected; to know if & how soon growth reaches double digits, all we need to do is wait and watch.

4.3.1 Conclusion

In the future, it appears that the government would focus on tax reforms and better targeting of social expenditures to achieve fiscal consolidation while maintaining the process of inclusive growth.

4.4 Limitations of the Study

This paper analyses the rationale behind the monetary policy stance taken by India particularly in 2010-2011, and many other nations through the decade. Though a lot has been covered before and after the year in focus, a chronological order of the maneuvers has not been provided.

The subject of our study is influenced by the global economy, domestic economy, climate change and other factors and events affecting the entire world. An always-changing attribute of the above mentioned factors makes it difficult to conduct the study and provide rationale for each and every monetary changes made by the government spanning over a decade. Hence, the year 2010-2015 has been a major theme of this paper including the financial crisis years.

Also, even though the monetary policy decisions taken by the authorities are based on many investigations, discussions and reports, the decisions are a leap of faith. Hence, the outcome may not be the one desired. Hence, the rationales given in this paper are merely situational, based on what happened in the past and may not apply to every other policy decision.

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