CHAPTER-2

REVIEW OF LITERATURE

2.1 Introduction:

For a monetarists inflation is purely a monetary phenomenon. They defined that an increase in aggregate prices in an economy is caused by the large expansion of money supply. On the other part of the structuralist of school of thought argued that "inflation is monetary phenomenon and large rate of money supply is a consequence rather than cause of inflation in developing countries. The direction of causality between money supply and inflation, try to solve these controversies by different researcher in their own point of view. The study is to take some relevant review to solution for the topic, whether it is money supply influence the inflation or any other factor is responsible.

2.2 Framework of Review of Literature

Denbel et.al. (2016) this study which is totally based on the causal relationship between inflation and money supply and between inflation and economic growth in Ethiopia for the period of 1970 to2011. The techniques used in this analysis is Johansen co integration test and VECM that there is long run bi-directional causality between inflation and money supply and unidirectional causality from economic growth to inflation. In the short period there is one way causality were found from money supply and economic growth to inflation. The result in this study is that the inflation is negatively and significantly affected the economic growth**.**

Barnett (2015) this paper is now casting the biggest economy in the world's fastest growing economies with an annual GDP growth rate exceeding 10% between 1978 and 2008.But in 2015 the Chinese GDP grew at 7%, the lowest rate in five years. The borrowing cost of capital is too high. This paper constructs the Chinese monetary aggregates M1 and M2 and for the first time constructs the broader Chinese monetary aggregates M3 and M4.GDP data are published only quarterly data and with a substantial lag, while many monetary and financial decisions are made at a higher frequency. The factor model, incorporating as indicators the divisia aggregates

indexes, Divisia M1 and M2 along with additional information from a large panel of other relevant time series data. We find that the Chinese money supply declined at the beginning of 2010 after which is the growth of Divisia M1, M2, M3 and M4 all steadily decreased, reflecting the tightened borrowing conditions in Chinese model.

Barnett (1984) this paper explained the currently available capacity to use formal statistical index number theory to measure the economy's money supply accurately. This paper is firstly illustrated the tightness of money in the monetarist Federal Reserve policy. The rate of growth of the money supply is found to have been lower and more volatile than when measured by the official simple sum aggregates have induced a tighter and more volatile policy than was intended. The growth of Divisia and simple sum M2 and M3 from Nov 1979 to 1982 (M1 contain currency, travelers checks,, demand deposits and others checkable deposits,M2 contains M1 overnight repurchase agreement and Euro dollars money a market a mutual funds balances money a market deposit accounts and saving and small time deposits,M3 contains M2 a large time deposits term repurchase agreements and institution only money market mutual fund balances. The Divisia and simple sum aggregation are same estimators of the same economic quantity aggregates Q (q_t). The Divisia quantity index is known to possess very small error. The officially simple sum M2 and M3 monetary aggregates were upwardly biased during the sample period and provided a deceptively high measure of the rate of growth of the corresponding exact monetary growth. He also solution about the concern of stock and flows. The Divisia monetary aggregates measure the flow of services produced by the component assets. The officially simple sum aggregates measure the accounting stock. The nominal economic stock often treated as proportional to the service flow, is the discounted present value of expenditure on the expected service flow from the current period through the lifetime of the component assets. The CPI is the Laspeyres index, which is known to be up worldly biased, and the IPD is a Paasche index, which is known to be downwardly biased. He also stressed that

the sign of the error with Fisher ideal or divisia index is not always the same but it is magnitude is third order.

Singh et. al. (2015) the study investigated that there is a casual relationship between money, output and prices for the post liberalization period in India. They found that the variable is relevant in the understanding of relationship between money, output, and prices. Narrow money (M1) is found to be a better policy variable than reserve money (M0) or Broad money (M3). They also the test of Johansen test for co-integration test and granger causality test which give some result of the WPI prices have along run relationship with money supply however CPI prices have no relation with money supply. The relationship between quarterly money supply and output is unidirectional. M1 granger causes output. M0 and M3 do not Granger Cause output. Monthly M0 has bidirectional relationship with output, while M1 shows unidirectional relationship with. M3 has no relationship with output. Monetary variables have a causal relationship between with prices. In another case it is interesting one the food prices are having a causal relationship with monthly growth in base money.

Kiganda (2014) this study specifically sought to the theory of monetarist theory of money supply in Kenya using the annual data from the period of 1984 to 2012. This study involved testing for stationary of the variables, using Augmented Dickey Fuller test, correlation coefficients, Vector error correction Model (VECM) and pairwise Granger causality test. There is no relationship between inflation money supply in Kenya. The data indicated that there is a weak significant positive correlation, are integrated of order 1, I (1) are co integrated. There exist a positive long run relationship between inflation and money supply in Kenya. The inflation is fundamentally derived from the growth rate of money supply and that a rapid increase in money supply leads to a rapid increase in inflation.

Khainga (2014) the study of this paper is to construct Divisia monetary aggregates and compare them with simple sum aggregations. They used the monetary aggregates for M1, M2, M3 and M3 XT are different from their counter parts, especially for M1, M2. It is found out that the currency and bank deposits are imperfect substitutes. Divisia aggregates perform equally as well as traditional monetary aggregates. Divisia monetary aggregates suggest that the different sub components of monetary assets are not highly substitutable and long run relationships based on demand for money, changes of stocks of financial assets as economic condition change. This includes user costs and expenditure shares for the monetary aggregates. Relative performance of the Divisia and simple sum aggregates by assessing the existence of plausible long-run relationship between the monetary aggregates and output and interest rate. Also used the method of co-integration test for analyzing the monetary aggregates, national income, and interest rate. The income elasticity based on Divisia monetary aggregates is lower, while the interest rate elasticities are marginally higher expect for Divisia M1.

Paul's (2015) the role of money in explaining in India through Philips curve approach against P-star model in forecasting inflation. It is the model which is the alternative measures of money such as simple sum and Divisia M3, to examine the relevance of inflation. The short run fluctuations in inflation are attributed to the determinants of long run equilibrium price. The long run equilibrium price (p*) is determined by current money supply, potential income and the equilibrium velocity. The benchmark asset that provides no liquidity services and is used to transfer wealth from one period to another and proxied by the rate of return on a least liquid asset/ long maturity assets or maximum rate of return among arrange of assets. As study mention that the IIP (Index Industrial Production) is considered an imperfect measure of demand pressure. They also used the Augmented Dickey fuller and Philip-Perron (pp) unit root test to observe the process. The result suggest that there is a coefficient associated with real money gap also turns out to be significantly different from zero and suggest that monetary

dynamics does have a crucial role in explaining the inflation. P-star model estimated with Divisia real money gap measure performs better than the model with simple sum real money gap measure in forecasting inflation. Inflation is affected by the three structural innovations at different forecast horizons. First is to shocks in money gap measures seem to have long term impact inflation as the impulse response coefficients rise till 12 months. This shows that the shocks in real money gap play a predominant role in explaining the inflation. Divisia real money gap and the five alternative measures of supply shocks include: world non fuel commodity inflation(WNEI), relative price inflation of food(RPFD), relative price inflation of fuel(RPFU), relative price inflation of food and fuel(RPFF) and movements in international crude oil inflation(OI). Each supply shocks on inflation have transitory in nature. It is used the period from April 1993 to August 2014.

Ahmed et.al. (2007) the study purposed that the money-out nexus in a multi-variety settings with impulse response function and variance decompositions analyses based on four variables VECM. Monetary policy effectiveness in the money. Money had little impact on price level. A variety of diagnostic test used in this theory to obtain the information regarding the money and fixed to flexible exchange rate regime during the period of study**.** The important implication of this study to use the monetary targeting as an important part of its macroeconomic policy to achieve a sustained rate of economic growth without endangering price stability. Money supply accounted for variance in output which is significantly less and expansionary monetary policy had no significant impact on prices. The persistent of inflation can be better examined by structural factors such as rising food prices, rising imports, and rising Govt. expenditure. GNP was compared for the middle –income countries on the purchasing power parity (PPP) basis and also given the financial sector development with financial liberalization may explain greater relevance of M2 than M1.

Javed et. al. (2011) the study revealed that the cost –push and monetary factors on GDP deflator through empirical analysis using annual data from 1971 to 2006-07. Here the study is tested by the model of OLS the stationary and Augmented Dickey Fuller test which is influenced both the cost push and monetary factors are influenced on whole sale price index. The prices of imported raw material have impact on GDP deflator and its positive sign suggest that as the prices of raw materials increase in the international markets the domestic price level also increases. Real GDP has positive sign but insignificant relationship with GDP deflator. There is positive relationship of the dummy variable with GDP deflator is that when the natural calamities occurs the productions of various commodities fall and there shortage leads to higher prices of these commodities. Lag value of broad money supply M and value of GDP deflator regression are stastically significant and the M1 and M2 are not significant. There is a positive relationship between narrow money supply and GDP deflator. The broad money supply M2 has positive insignificant relationship with GDP deflator. In this study there is dominant role increasing inflation as revealed by the sign of LCPI.

Sharma et. al. (2010) in this paper we have to investigate whether the money supply Granger cause the output or prices or both. Granger causes money supply or not .Since the test is required in the process of money supply, seasonal unit root test results are reported in all the M3, IIP, and WPI. The study found out that there is an effect of money supply on output has remained a short run phenomenon in the post liberalization period. On the other hand effect of money supply on prices gets reflected only at business cycle frequency in the form of Indian context. The causality is unidirectional in both the cases running from money supply too output and prices. In the bidirectional causality between money supply output and money supply-price indicates that money supply can be consider as exogenous in our bivariate frame work. This shows that the supply of money (M3) can be considered as an effective control variable.

The period of the study was from April 1991 to March 2009 which is mostly the post liberalization period.

Basu (2011) in this study the inflation management is one of the hardest tasks an economic policy maker has to undertake but there is a cardinal mistake of entirely economy. Inflation require judgments and intuition, and using the statistical information and understanding of economic theory. The period is taken from the year 1972 to 2011 from all the commodity and combined the food prices. The inflationary has begun in December 2009 when the WPI inflation climbed to 7.15 percent it continued to rise peaked in April 2010 at just short of 11percent, there was a small pickup in inflation in December 2011 and also because the down word or slow. When WPI inflation something in an uncertain manner in and around 10 percent and now India had very little inflation for the dozen years. There were occasional months when the inflation would exceed 8 percent and not a single month when it was in double digits these twelve years of price stability. India government does not control interest rates, excepting a few, such as the basis savings account interest rate for bank deposits. In adjusting the repo rate and reverse repo rate it is expected that these changes influence the behavior of banks and cause the free market interest rates, instances, on mortgages fixed deposits and other lending plans to move in similar directions. Thus in turn will influence and through that inflation. Another problem arising standard macro –economic demand management for controlling inflation because we are on the stage of globalization, the world is flat, there is need to worry about the neighbor's money in a way that we never had to in the past. The land scape of growth and inflation across in the nations, which the world is suffering from stagflation. In virtually all industrialized nations one sees inflation on high and emerging market economies in the nations which is called 'salad bowl inflation'.

Kohli (2001) this paper reveals that domestic monetary management of a capital surge in the economy also led to the fiscal expansion in India which raises the aggregate demand and

aggravate the inflationary impact of capital inflows. This only for the macroeconomic management as the only variable that can be varied in this scenario to control inflation or adhere to monetary target is domestic private sector credit. The period of the study in the year on 1985 to 1999 which is envisaged the impact of foreign currency inflows up on domestic money supply, and associated with the sterilization policies like the interest rate, exchange of foreign currency assets, OMO is another channel of sterilization. Sterilization leads to an increase in public debt, and these costs termed as quasi- fiscal costs. The substantial rise in commercial banks holdings of government securities by the system in 1990s, the quasi fiscal cost could be high. Heavy dependence upon reserve requirements as a policy tool for management and substantial amount of funds in India are still intermediated through the banking sector, its share in the total financial assets of the economy is steadily falling. Low rates of return on the bear which distorts the share of intermediation by the banking sector with the sterilization is the interest differential between the interest rate on purchase of foreign exchange securities and the interest rate paid on external debt servicing.

Samantarya et. al. (2006) the study investigated that the inflation increased from the 1970s onwards before moderating in the mid-1990s. Supply shocks both due to a setback in agricultural production and international oil prices and monetary expansion due to automatic monetization of the fiscal deficit were major contributory factors to higher inflation. The broad based financial market, particularly the activation of the government securities and forex markets coupled with improved monetary fiscal deficit interface enabled better monetary management since the second half of the 1990s. Monetary management was effective in ensuring a reduction in inflation and lowering expectation. The expansionary effect emanating from massive capital flows to India since 1993-94 has been sterilized through a variety of instrument. Including OMO and repo operations under LAF.

Bhole (1987) The study postulates that there has been a growing tendency both in India and abroad to conduct monetary analysis and policy in terms of empirically defined broad money and multiple measures of money in monetary system also has held that multiple M3 is the appropriate definition of money and that the money multiplier frame work is dependable for money supply analysis and control. The paper was totally focusing on the major issues relating the concept, measure, and determination of money supply. The possible assets used in the in the context of currency(C), other deposits with RBI(ODR), current deposits with banks(CDB), saving deposits with bank(SDB), saving deposits with post office saving banks(SDPOSB), fixed deposits with banks(FDB), time deposits with post office(TDPO), other deposits with post office(ODPO), national saving certificates(NSCS), other certificates with post offices(OCPO), treasury bills(TBs), government bonds(GBs), Industrial bonds(IBs) fixed deposits with non-banking companies(FDCOs), trade credit(TC), unutilized credit limits and industrial limits(UCL) and industrial shares(IS) . The study period of this paper was 1950-51 to 1981-82 this paper clearly show that it would not be the interests of the effectiveness of monetary policy to depend on the narrow money multiplier frame work for controlling money supply variations in India the regulations of government market borrowings, deficit financing, foreign exchange assets and availability of bank credit by fiscal and monetary authorities would have a high degree of success in controlling money supply.

Jha et. al. (1999) this paper investigated that there is a monetary asset grouping of monetary aggregate of the RBI estimated on the three monetary assets namely, currency with public, demand deposit and time deposits. The separaility tests to use for the construction of monetary assets lead us to reject any independent grouping of two assets out of the rest and take the data of monthly to roust the result. He told that the choices of proxies for benchmark rate and yield other assets plays a crucial role. The asset groups are neither equivalent to each other nor constant and to know the relative performance of the monetary assets over the period. This

paper is has pointed out that the separability is not satisfied, the divisia would be the better index to use than the simple sum. The separaility theory in M1 is a weekly part in this paper. The separailty theory shown in this segment is to provides the fundamental linkage between aggregation of goods and the maximization principles in economic theory, partitioning the economic structure in to two sectors and the theoretical hypothesis can produce power-full parameter restriction's, permitting great simplification in estimation of large demand systems. They also talk about the divisia model to evolving the user costs of monetary assets as the exogenous variables and the shares of got the monetary in assets in the total expenditure as the endogenous variables estimated y the using of non-linear seemingly unrelated method.

Serletis et. al. (2011) this paper build on the work of relationship between money growth uncertainty and the level of economic activity in the United States. They used the data of MSI (Monetary service indices) in the period of 1967:1 to 2011:3, in the context of bivariate VARMA,GARCH-in-Mean,assymetric BEKK model and increased Divisia money growth volatility is associated with a lower average growth rate of real economic activity. There are no effects of simple sum M1 and perhaps sum M2M aggregates. The relationship is not the roust to alternative methods of aggregating monetary assets .In the new Keynesian approach to monetary policy under the sticky prices, central banks use a short-term nominal interest rate as their operating instruments, but the effects of monetary policy on economic activity stem from how long-term real interest rates respond to the short-term nominal interest rate . They also said that there is a stable relationship in financial markets and decoupling of long-term interest rates from short-term interest rates has significant implications for monetary policy. The federal funds rate has reached the zero lower bound and lost its usual ability to signal policy changes with the change of federal funds rate. The subprime of financial crisis and the great recession time the central banks throughout the world departed from the traditional interest rate and targeting monetary policy and focusing on their balance sheet instead of using

the quantitative easing. The US economy in an environment with the federal funds rate at the zero lower bound and the level of excess reserves in the trillions of dollars, no one is sure how this will unfold. The federal funds rate unusually low for a long period introduces un-certainty about the future path of money growth and inflation. This un-certainty can be especially damaging to the economy, as it amplifies the negative response of the economy to un-favorable shocks and dampens the positive response to favorable shocks. The most of the puzzles and paradoxes that have evolved in the monetary economics literature were produced by the simple-sum monetary aggregates, provided officially by most central banks and are resolved by use of aggregation- theoretic monetary aggregates.

Binner et.al. (1999) this paper shows that there is a comparison to the performance of the Divisia M4 monetary index with the standard simple sum measure of broad money in the context of composite leading indicator of inflation in the United king dom. There is a principal component analysis as a more sophisticated weighted mechanism for the constituent components. Indicators constructed using a Divisia index measure of money were found to be more closely related to the inflation reference cycle than indicators using their simple sum counterparts when a principal components weighting mechanism was used. This paper constructs both shorter and longer composite leading indicators of inflation which reflect monetary factors and both cost and excess demand influences, as well as international pressures on UK inflation.M4 were found to provide longer average leads times over future movements in inflation in the majority of cases. The component analysis proved to be a useful alternative to the current practice of simple averaging. The resulting series were smooth, not dominated by regular or non-cyclical movements and stable over the time period under study. The Govt. commitment to base monetary policy on a target for inflation may best be achieved by use of Divisia index measure. It is good indicator to monitoring the movements of inflation.

Singh (2006) this paper found that the inflation targeting framework has been success fully implemented in several developed and developing countries. This system requires equal commitment from the Govt. and the central bank. In Indian context the targeting inflation is politically sustainable given the overwhelming preferences of the population for lower headline inflation. Taking in to account the measurement errors, the price stability means an inflation level of the order 2 to 3 percent. in the case of India ,McKibbin and Singh(2003) have shown that the nominal income targeting does better than both monetary targeting and inflationary targeting, while inflation targeting performs better than monetary targeting.

Schunk (2001) this paper provides direct evidence on the fore casting performance of the Divisia monetary aggregates relative to traditional simple sum monetary aggregates relative to the traditional simple sum monetary aggregates. It is shown that forecasts of US real GDP from a four variable vector auto-regression are most accurate when a divisia aggregate is included rather than a simple sum-aggregate, particularly at broad levels of aggregation. Further, the two M1 aggregates, relative to the broader aggregates, are superior predictors of the GDP deflator, with a slight edge going to Divisia M1 over simple sum M1.He studied that the simple summation would provide valid indices of the stock of nominal monetary wealth, as required in national accounting, or indices of bank liability, as required in bank accounting, but not valid structural economic variables. The eight VARs have been estimated in this study using 120 observation,1962:1-1991:4.The divergence between the simple sum and the Divisia aggregates relatively small. The M1 aggregates were particularly successful in fore casting the GDP deflator. This shows that the broad divisia monetary aggregates contain valuable information for forecasting future real economic activity. Since the narrowest Divisia aggregate is most useful for forecasting future prices.

Patnaik (2010) this paper persistent inflationary pressure experienced in the post liberalization era in India .The causes of inflation in India have undergone changes. This study is based on

the method of Co integrated Vectors Auto regression (VAR) framework, the empirical estimation is carried out. The Error Correction Mechanism (ECM) of the cointigrated variables is also carried out .The impulse response Function (IRF) of the cointigrated VAR system shows that there is lag in the response of inflation to the changes in the other variables in the VAR system. The Fixed Error Variance Decomposition (FEVD) shows that the inflation India is a mix of demand and supply side factors. The stabilization policies should therefore focus on both demand control as well as supply management. Also considering the lag in the impact of the explanatory variables the stabilization policies should become more pro -active. The existence of co-integrating relationship between the variables reveals along run relation between them. This implies that CPI is influenced by the IIP, RM and IMP (Index of Industrial, Reserve Money, Import index). The ECM is highly significant this implies that the CPI adjusts to past period trend and lags in other variables. So also it responds to past policy fundamentals. The IRF is the response to shock by the CPI adjusts after around 12 months and it is totally lag situation. The FEVD of CPI throws very crucial light on the determinants of inflation in India. Money supply does influences the inflation, but the impact is short lived. It is due to the external sector is also very immediate and it comes via the IIP.

Cysne (2003) this is postulates that the adequate measures of the welfare costs of inflation and money pay the interest-bearing asset held by the household .Each monetary asset is supposed to have, at the margin, a different degree of moneyness.The house hold is endowed with one unit of time that can be used to transact or to produce the consumption good, so that Y + S = 1, the GDP is normalized to one when the shopping time is equal to zero. For homogeneity there is used for Euler's theorem. Divisia quantity indices and consumers surplus measures of welfare losses and it is monetary services with the welfare costs of inflation. How the nominal prices used in their construction are normalized or deflated. The economy is a fisher one where the benchmark interest rate is determined by the rate of inflation, which is endogenous in the

model, and by the rate of the monetary assets are exogenously determined by the Govt.the interest rate wedges are directly linked to the inflation rate. We have also shown that financial innovations have negative impact on the welfare cost of inflation. How to take non-neutral financial innovations into considerations in the welfare measurement. The divisia methodology using to know the welfare cost of inflation only the knowledge of the demand for the monetary base.

Acharya (2007) this paper examines that the properties of a new weighted monetary aggregate, currency equivalent monetary aggregate for India using the components of a broad monetary aggregates NM3 recommended by the working group on money supply. Pure substitution effects occurring due to a relative price change in financial innovations. In this paper the attempt has been made to construct a new weighted monetary aggregate (CEMA), the new simple sum money definition of the RBI, NM3 for aggregation purpose. The empirical performance of this aggregate is compared with its simple sum counterpart NM3 by employing a money demand function. The money demand function is estimated using the ARDL approach to cointegration. The weighted monetary aggregate, CEMA is found to dominate the simple sum one in terms of expected properties in a money demand equation.

Chona (1976) this paper proves that the stock of money available to the community can be exogenously determined by the monetary authorities. It also covering the period 1951-52 to 1974-75 and to see whether the Reserve Bank can control and predict the effects of changes in its monetary liabilities on total money supply. The focus is on identifying the factors affecting money supply in terms of primary money created by the Reserve Bank of India and secondary money created by commercial banks. The Value of money multiplier has shown variations, particularly in the short period. The L has far exceeded the k effect on money supply Control on money supply has to be exercised changes through changes in the monetary liabilities of the reserve bank. There is another thing is to the net bank credit to Govt.has the major factor

causing changes in monetary liabilities of the Reserve Bank. The allocation of changes in money supply to policy actions and to behavioral variables, an allocation that is not possible in terms of the conventional presentation of data on money supply on the basis of the balance sheets of the banking system should facilitate the task of the reserve bank in making an early assessment of the probable response to monetary measures that it may wish to contemplate.

Thornton (2006) this study analyzed the GARCH model to finds a positive and significant relationship between the level and variability of monthly inflation in India from the period of 1957-2005. The running inflation to uncertainty about future inflation by Friedman. The inflation has a negative output effects, this strengthens the case for the central bank to focus on price stability as one of the prime objective of monetary policy.

Balakrishnan (1993) this paper is claimed that the neutrality of anticipated money growth under rational expectations is acceptable in the Indian context. They re-capitulate that fluctuations about the natural level of output are driven by money surprises is rejected for two categories of output in the Indian economy. One is aggregate output and another is industrial productions. In Indian context there would be wrongly advised that it can be certain of containing inflation solely by implementing a pre-announced reduction in money growth rate, leave alone doing so costless.

Jadhhav and Singh (1990) this study nexus that the inflation in India is due to chronic and time accelerating, the short-term dynamics of budget deficit, money supply and economic growth. They argued that causation between money and prices may not be the uni-direction as postulated by monetarist model. Money supply may not be independent of the price level and the causation may more appropriately be viewed as running both ways. Government expenditure adjusts more rapidly than receipts to a given change in price level and as a result, inflation widens the fiscal deficits leading, through the central bank financing, to larger money

supply increasing the inflation further. It takes closer look at the model for capturing inter relationship among budget deficit, money supply, inflation, and economic growth and their effect on the which conspicuous by their absence. The data covering from Indian from the period of 1970 to 1988.Static and dynamic simulations to conduct to assess the overall tracking ability of the model.

Vasuvedan (1979) this study emphasized that there is two important influences on the demand for money are income and interest rate. Money rates are generally administered a particularly serious problem is specifying an appropriate rate of interest, all the quantity variables are expressed in nominal, essentially because any deflation in to real terms either by whole sale price index or by national income deflator, would introduce an elements of arbitrariness apart from suggesting total absence of money illusion.

2.3 Research Gap

Every research has its own limitations. It has been found that mostly study is under taken by the WPI and CPI inflation, influence the inflation in the country, ignoring the GDP deflator because in Indian level official calculation is not so correct. So the different study is cannot possible to under taken for new theory. This the measurement errors of the price stability means an inflation level of the order 2 to 3 percent, in the case of India is the nominal income targeting does better than both the monetary targeting and inflationary targeting, while inflation targeting performs better than the monetary targeting. It shows that there is a gap between the money supply and inflation calculation in India.