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SHRI RAM COLLEGE OF COMMERCE

VOLUME 2 ISSUE 1 2017-18

STRIDES

A STUDENTS' JOURNAL OF SHRI RAM COLLEGE OF COMMERCE

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Principal's Message

The mission statement of the College, signifying the existence and its road map to the achievement of its vision, reads as:

"***To achieve and sustain excellence in teaching and research, enrich local, national and international communities through our research, improve skills of alumni, and to publish academic and educational resources***"

To achieve and promote excellence in publications and applied research, the College has taken the initiative to launch a new journal exclusively to publish students' research papers and articles. It will be an add-on to the enriched catalogue of College publications and academic literature.

The journal has provided an opportunity to the students of our college to focus on research. Since the students were not opened to the research methodologies at the undergraduate level, they were mentored by experienced senior faculties of our College. Simultaneously, their articles were also reviewed by the referees and tested for plagiarism before publication. After reporting all the suggestions recommended by the referees, the articles were revised and then finally published. The College had successfully released the foundation issue of the journal **"Strides – A Students' Journal of Shri Ram College of Commerce, Volume 1, Issue 1, 2016-17"** on the occasion of 91st Annual Day of College held on 13th April 2017. The Journal was released by Shri Prakash Javadekar, Honb'le Minister of Human Resource Development, Government of India.

The college has already applied for seeking International Standard Serial Number (ISSN) for the Journal. The application for ISSN is still under process.

I would like to congratulate the students whose papers are published in this issue of the journal and simultaneously encourage all the students to contribute their research papers and articles for the successive issues of the Journal.

Best wishes for their future endeavors.

Prof. Simrit Kaur
Principal

Editor's Message

Shri Ram College of Commerce is well known for its academic excellence and dedicated approach towards dissemination of knowledge in the academic world. The College appreciates the role of research in education and is committed to developing an inclination towards research in both faculty and students. In this pursuit, the College has taken the initiative to launch a new Journal named 'Strides – A Students' Journal of Shri Ram College of Commerce' to encourage students to pursue research under the guidance of the faculty of Shri Ram College of Commerce.

It is a bi-annual journal launched exclusively to publish academic research papers and articles by the students on contemporary topics and issues in the area of commerce, economics, management, governance, policies etc.

In order to maintain high standards of publication, the Committee on Publication Ethics (COPE) has been constituted. The COPE shall be the apex authority to take all decisions related to publication of research papers and articles in Strides. The decision of the COPE shall be final and binding.

To maintain high academic standards, academic ethics and academic integrity, a rigorous process of double blind review of research papers is followed along with screening for plagiarism of each

manuscript received by the college for publication. The research work published in Strides is original and not published or presented at any other public forum.

The foundation issue of the Journal i.e. **"Strides – A Students' Journal of Shri Ram College of Commerce, Volume 1, Issue 1, 2016-17"** was successfully released on 91st Annual Day of the College held on 13th April 2017 by Shri Prakash Javadekar, Honb'le Minister of Human Resource Development, Government of India.

The successive Issues of 'Strides – A Students' Journal of Shri Ram College of Commerce' shall be bi-annually released.

Dr. Santosh Kumari
Editor

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RESEARCH PAPERS AND ARTICLES

Inflation Targeting

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This paper aims to study Inflation Targeting in the Indian as well as the International context. We seek to learn about its implementation in both these contexts. There are a few inferences one can draw from India's experience but it is too early to draw well-defined conclusions. It also aims to study financial stability concerns alongside the Inflation Targeting framework. We discuss certain issues related to the IT approach such as exchange rate volatility along with it's potential for increased transparency and reduced inflation volatility. We also take a look at the financial stability concerns. Finally, we draw some conclusions based on the work done in this area in the past, certain economic models related to this approach, along with statistics and trends.

INTRODUCTION

Inflation targeting is a monetary policy strategy used by central banks for maintaining prices at a specific level or within a particular range involving methods like interest rate changes, which could assist to attain the targeted level of inflation.

Inflation targeting stems from Irvin Fisher's "Compensated Dollar" Policy and John Maynard Keynes approach of "Flexible Exchange System", the latter is the same as Inflation Targeting. The first three countries to adopt the Inflation Targeting approach were New Zealand, Canada and United Kingdom in the early 1990s. Germany adopted certain elements of this approach earlier.

There are certain factors that must be considered, when a country is going to introduce inflation targeting initially. The first is that the central bank of a country has the power to conduct its own independent monetary policy, second is that it follows a single variable approach and targets only one variable, which is inflation. The authorities can take some precursory steps: Establish numerical targets for inflation for a fixed set of periods & decide the length of time to hit the target. Indicate clearly to the people that achieving the inflation target is more important than all other objectives of monetary policy & devise a strategy to be used for communicating guidelines in the IT regime, Develop a model or methodology for inflation prediction that utilizes numerous indicators consisting of data regarding inflation in the coming years and lastly, choose which measure of inflation is to be used.

This paper first contains the Literature Review of Inflation Targeting, while next section explores its implementation, costs, & benefits in the Indian setting. Later sections incorporate financial stability & exchange rate volatility concerns along with analyzing the statistics, trends, and nominal anchors used & available for this approach alongside macroeconomic concepts of Phillips curve & inflation expectations. Finally, it contains the inferences & conclusions drawn from the extensive research and data collection and section 9 contains the references used.

LITERATURE REVIEW

Since 1990s a considerable amount of literature on Inflation Targeting has been evolved. Views have usually been expressed in terms of costs and benefits of IT or regarding the parameters to be considered or the framework of the policy.

In general, the advantages of Inflation Targeting are many, ranging from decreased and balanced inflation volatility **(Svensson 1997)**, fall in the effect of inflation of shocks and better absorption **(Mishkin 2004)**, better safeguarding of inflation expectations **(Kohn 2007, Swanson 2006, Levin 2004)**. However, the same comes with its own costs such as constrained strength and power of the central bank to react to unanticipated situations; Possibly poor results in the state of employment, exchange rate and a few other macroeconomic variables; Likely instability in the case of supply-side shocks which are substantial; meager amount of support from the people of the nation. **(Bernanke 2003)**. A few other challenges it confronts were discovered after the crisis that took place in 2008 that are huge positive surprises which affect inflation can affect central bank credibility in a negative manner, fiscal imbalances, commodity price shocks. A few economists also suggested that the need to shift from CPI anchoring to PPT anchoring. However, the biggest challenge being faced by most central banks is how to maintain their credibility. **(Luiz A)**

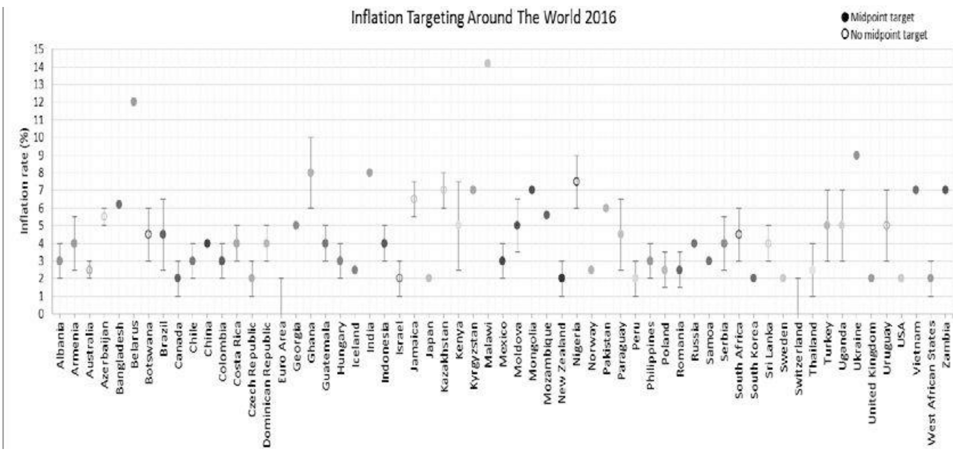
As expressed by King **(2005)** in one of his studies, he discovered that IT approach consists and amalgamates two distinct elements, first being an accurate quantitative target for inflation in the medium run and the second being the reaction to economic surprises in the short run. The target helps formulate a mandate-type system in which the private sector can anchor their expectations about inflation in the coming days or years. Other significant observation made comprises that of **Woodford (2003) and Svensson (2007)** which exhibits that the significance of inflation targeting can be measured by a quadratic loss function comprising of the total of the square of inflation deviations from target and a weight times the square of the output gap. Firstly, as **Friedman and Phelps** exhibited, a perpetual larger inflation rate does not always mean a larger rate of growth and employment. Acknowledgement of this idea braced a deviation from monetary policy as a method of short run demand management, and makes us pay attention to the aim of price stability, which is a long-term focus; it is the base of IT. Secondly, advantages of balanced and low inflation as well as demerits of high inflation have received an improved awareness. Thirdly, the literature immensely centered on the merits of inflation expectations in monetary policy. The impact of choices in regard with the monetary policy on private sector expectations are now a key factor for authorities involved in decision-making. As opposed to this new developing agreement amongst most economists, expectations are anchored well by IT policy. Ball and **Sheridan (2003)** took up a comparison of the results of monetary policy in various nations and discovered, that the ones who have a past of high inflation prior to 1990s consequently encountered a higher level of disinflation in comparison to nations, which witnessed meager inflation. Debates involved that when regression to the mean is regulated, proof of IT enhancing performing is no more. **Hyvonen (2004)** expanded work stated above and discovered that implementation of IT partially caused the convergence of inflation during 1990s. **Vega and Winkelried (2005)** showed that IT assisted in decreasing the degree of fluctuation in nations that started following this approach. **Orphanides and Williams (2003)** portrayed that a structured approach to policy that characterizes IT makes it predictable and leads to higher impact in expectations. **Levin et al (2004)** discovered proof regarding the fact that in countries following the IT mandate inflation perseverance is less, and expectations better anchored.

IMF studies show IT seems to be linked with less inflation, low inflation expectations and low volatility in comparison to those nations that do not follow this mandate. Such achievements in inflation behavior have been accomplished with absolutely no negative impact on output and interest rate volatility. It also included an analysis of the way and manner in which monetary policy frameworks have resulted to be most efficient in anchoring expectations regarding inflation in the backdrop of the oil and food price shocks in 2007, inferring that in economic frameworks which are developing, IT appears to be more successful recently relative to other frameworks in anchoring expectations'. Lately, **Rogers (2010)** discovered the finding wherein IT withstood the financial shocks and crisises; while **Carvalho-Filho (2010)** exclaims results such that more apt to deal with shocks and crisis are the monetary policy of nations following IT approach. Therefore, it can be inferred that the enhanced monetary policy results following the implementation of inflation targeting results in enhanced decisions regarding economic programs and policies.

Next, coming to the growth period. "Transition from growth acceleration to growth spells requires additional efforts than one needed for acceleration, spells can be sustained by fiscal policies whereas accelerations are triggered by external conditions, investments and trade conditions. Overall determinants in sub-Saharan Africa are different from those in the rest of the world." **(IMF working paper WP/17/202)**

Figure-1: Inflation Targeting Around The World

Source- theaspiringeconomist.wordpress.com



This figure shows the countries, which have adopted the Inflation Targeting policy along with their targeted rate.

Figure-2: Real Output Growth & Inflation Volatility for Selected IT & Non-IT Countries

Source- World Bank (2008)

		Pre-Inflation Target /1982–1992				*Post-Inflation Target / 1993–*			
		Avg. growth	*St. dev. growth*	*Avg. inflation*	*St. dev. inflation*	*Avg. growth*	*St. dev. growth*	*Avg. inflation*	*St. dev. inflation*
Inflation targeters	New Zealand	1.89%	1.85%	10.08%	5.24%	*2.99%*	*2.02%*	*1.99%*	*0.99%*
	Canada	2.84%	2.57%	5.09%	2.58%	*2.81%*	*1.87%*	*1.97%*	*1.15%*
	United Kingdom	2.42%	1.95%	5.82%	1.45%	*2.89%*	*0.66%*	*2.51%*	*0.59%*
	Sweden	1.81%	1.72%	6.99%	2.47%	*2.71%*	*1.80%*	*1.70%*	*0.94%*
	Australia	2.76%	2.59%	5.99%	2.94%	*3.65%*	*0.90%*	*2.60%*	*1.55%*
Non-inflation targeters	United States	3.02%	2.44%	3.52%	1.05%	*3.21%*	*1.11%*	*2.15%*	*0.58%*
	Japan	3.72%	1.73%	2.00%	0.87%	*1.21%*	*1.39%*	*–0.74%*	*0.79%*
	Denmark	2.27%	1.74%	4.68%	2.44%	*2.34%*	*1.53%*	*1.94%*	*0.69%*
	France	2.32%	1.17%	5.10%	3.26%	*1.97%*	*1.21%*	*1.50%*	*0.60%*
	High-income countries	3.02%	1.40%	4.63%	1.55%	*2.58%*	*0.83%*	*2.49%*	*0.39%*

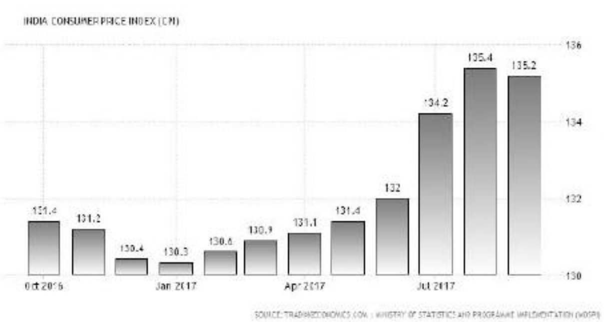
The table above shows a comparison between the average real output growth in Inflation Targeting countries before and after the adoption of the policy, we can analyze that the average growth in these countries has risen by at least 1%. It also shows a comparison between Non-Inflation Targeting countries whose average output growth shows variability, where some have minorly increased and most have shown a decrease.

INFLATION TARGETING IN INDIA

IT in India was incepted through the initiation of the Narasimham &the Rajan Committee felt that Inflation Targeting should be implemented in India, as it would give the RBI the autonomy to conduct its operations and achieve its targets without any interference. Both these commitees felt that low and stable inflation would lead to the public being able to take long term monetary decisions confidently, further leading to an increase in investments thereby leading to long term growth of the economy. Rajan favored the single variable approach to the then multivariable approach being followed, he also felt the predictability & transparency of IT would let the monetary authorities respond to shocks in a better manner. But there were some who opposed this view, and were against implementing IT in India such as Reddy, Subbarao, Jha and Bimal Jalan. They felt that the multi variable approach in India has been quite successful and also allowed maintenance of low and stable inflation. We also have a weak monetary transmission mechanism & IT can also lead to exchange rate volatility (Jalan). India lacks transmission mechanism as well as a well-defined anchor to be used for inflation targeting. They also felt alleviating poverty should be India's foremost concern and that there is a lack of proper framework, inadequate financial markets, dependence of fiscal and monetary policies, non-independence of RBI to name a few for implementation of IT in India. There is also uncertainty as to which index to be used for anchoring, however CPI has been chosen at last. India is mainly an agrarian economy, which depends upon external factors such as monsoon, climate etc. which IT will not be able to target

Figure-3: India's Consumer Price Index

Source- www.tradingeconomics.com.



The above figure shows the CPI in India from October 2014 to September 2017. We can infer that the CPI has been rising and then finally falls. This is ambiguous and drawing an inference is tough.

It could be the case that IT after implementation is now leading to stability in its anchor or this could be due to other factors as well. Therefore, this is inconclusive.

The Government has formally inducted inflation targeting in India. The Finance Minister announced the introduction of IT in his budget statement 2016.

Under this statement, the central bank solely focuses on achieving price stability. This sole focus on price stability leads many developing countries to reject the IT framework. There are two reasons for this. Foremost, there are other equivalent important goals to be achieved by developing economies where price stability is just one of them, hence the multivariable approach seems more suitable in such regimes. The other being the conflict between economic growth and inflation stability. Both of these goals cannot be simultaneously fulfilled. Another attribution can be that, in developing countries the real reason behind inflation is not due to monetary action but by other external factors. We can take the example of India, which is mainly an agrarian economy and it's output therefore largely depends on the amount of monsoon in the year. This cannot be changed by any monetary action by the central bank.

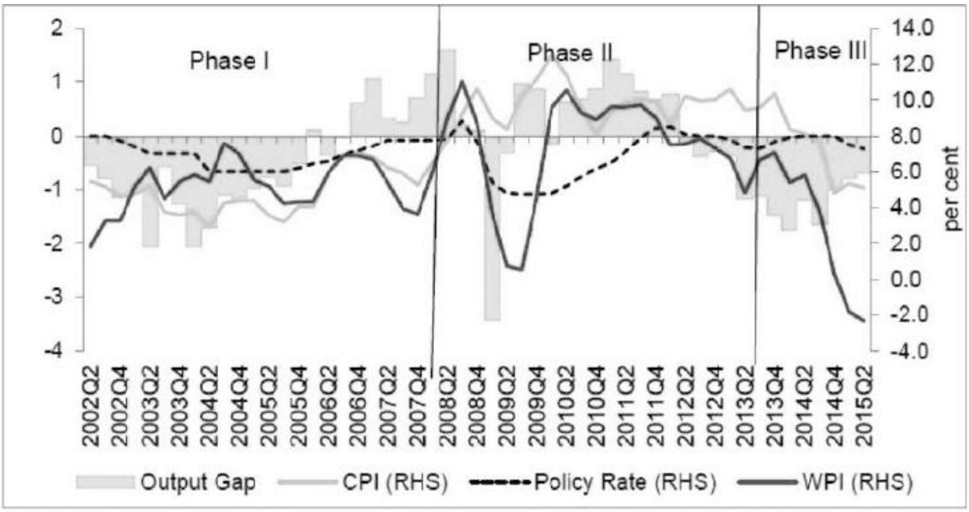
The Urjit Patel Committee introduced inflation targeting in India, although introducing it was being considered since many years. The inflation target is set every five years with CPI as it's anchor by the government and RBI. The inflation target has been fixed for the period from August 5, 2016 and ending on the March 31, 2021, as follows:

- Inflation Target: Four per cent.
- Upper tolerance level: Six per cent.
- Lower tolerance level: Two per cent

In India, to avoid the problems stated above it was decided that the growth aspect would also be considered while deciding the targets. The range around the target has been decided so that MPC will acknowledge the short run trade-offs between inflation and growth but allows it to focus on inflation stability in the long run. The policy says that if inflation goes above or below the upper tolerance and lower tolerance level respectively for three consecutive quarters, it will then be considered as unsuccessfulness of RBI's monetary policy. This involves stating the steps to be followed incase of failure, a report needs to be sent to the central government, which includes the causes of such incapacity of the policy and also the remedial action proposed and an approximate time within which inflation target can be achieved through the remedial policy.

Figure-4: Macro-Narrative of Inflation in India

Source-www.rbi.org.in

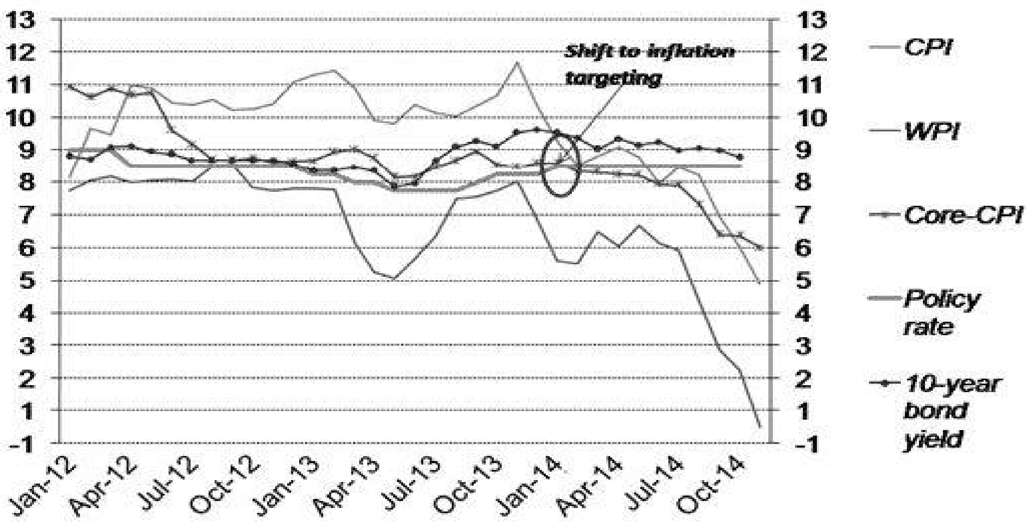


*Year/year. Combined CPI since 2012; pre-2012, backcast using re-weighted CPI-IW data.
Source: Authors calculations.

The above figure clearly shows there has been a decline in output gap once IT was implemented in India and also a decline in CPI, thereby letting us conclude that their has been price stabilization and also output is being efficiently produced.

Figure-5

Source- Livemint: IT in democratic India by V.Anantha



We can clearly see that there has been a decline in all the above indicators once IT policy was initiated resulting in price stability.

However, the results obtained and analyzed must be taken with a word of caution due to lack of adequate data on price stability and behavior of output gap. Specifically, regarding output gap / variability one has to keep in mind that it has been in the negative over that small period following adoption of IT in India.

Though we have claimed that IT caused fall in growth too cannot be made without further data and arguments.

USE OF MACROECONOMIC MODELS TO EXPLAIN INFLATION TARGETING

There have been major changes in inflation over time which have led to: long term inflation expectations anchor at inflation target rates, alongside the flattening of the Phillips curve which has led to reduction in the price variability due to domestic monetary policy. The difference is that now imports account for a large share of variability in the consumer price inflation than before. These changes have made CPI inflation a less reliable. Changes in CPI inflation now account less for differences in the domestic economy than for peculiar shocks. The Phillips Curve has flattened, which could be concurrent with the adoption of inflation targeting, has resulted in complexifying recognition of deviations in the output of the economy from the potential and hence predicting inflation has become tougher.. Inflationary pressures stemming from disequilibrium between demand and supply are more minute and harder to decompose from peculiar difference in inflation. Two pointers, which have received acceptance, are the dual unemployment-inflation mandates; or to change the target to something which is more intricately associated than CPI to home country's state of economy. Such a framework is usually known as “flexible inflation targeting”. Here, in the long run the major focus is to stabilize inflation but if a chance to stabilize growth or output comes, these variables are stabilized.

The first aspect of this change in performance can be understood as to how variations in inflation are due to long-term inflation expectations. There will only be a response and difference in expectations and variation in the long run if expectations are adaptive, if they are well anchored there will be no response.

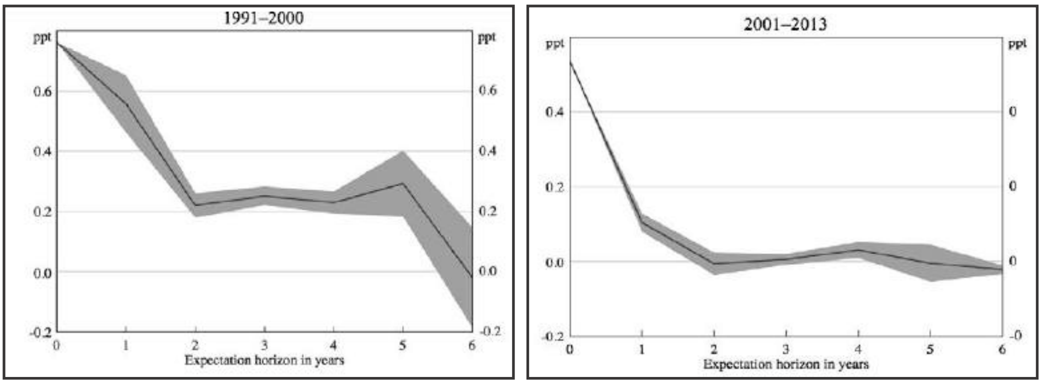
To assess this we use the following model of Rational Expectations:

$$F_t^{Sep}\pi_{t+h} - F_t^{Mar}\pi_{t+h} = \alpha_h + \beta_h\left(F_t^{Sep}\pi_t - F_t^{Mar}\pi_t\right) + \varepsilon_{t+h}$$

Let us understand this in one of the first countries to implement IT's context i.e. Australia, taking this example, in accordance with the data are available from 1991, so we divide the sample in two halves, the first one being from 1991 to 2000 which includes the first few years of IT and then 2001 to 2013 which includes the latter experience. An unanticipated change of one standard deviation to present day inflation is shown through it's effect on inflation expectations represented by regression coefficient (Beta Term) estimates for every sample period: (2 Terms on the lefthandside) During the first period, in Australia, an unanticipated change of one standard deviation in present day inflation led to rise in inflation expectations of professional estimators for a time length of 5 years, but in the latter half, unanticipated changes have had very minute effects(abstracting from base effects). In comparison with the time when IT was initially introduced, no doubt inflation expectations are better anchored now. The following can also be seen through the diagrams represented below.

Figure-6: Expectation horizons from 1991-2000, 2001-2013

Source- Reserve Bank Of Australia

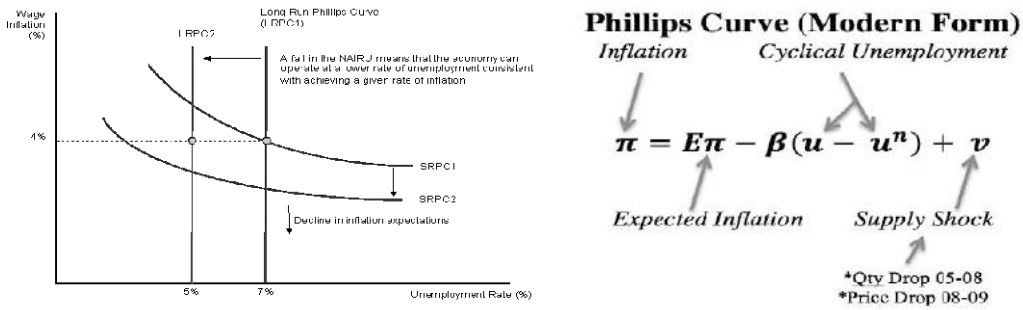


Even though, this argument is to the point and can be easily understood, there are numerous ways in which the behavior of inflation is influenced by IT. Let us consider the case regarding the current disputes and discussions about the link between economic slowdown and inflation being changing. If in specific, open economies, which are not large, are being considered, then another discussion is fueled regarding the affect of foreign goods on home country's prices. For improved understanding, we can introduce the New-Keynesian Phillips curve. Through this concept, we can easily understand the level of non-accelerating inflation rate of unemployment (NAIRU), the level of inflation expectation anchoring, and surprises in the slope of the curve.

A.W. Phillips derived Phillips Curve for the economy of United Kingdom, which held that there is an inverse relationship between inflation and unemployment. However, in the US in 1970s this relationship seemed to breakdown due to increased unemployment and increased inflation due to other factors such as non labor costs including oil price rises as well as change in behavior of inflation, which now turned into one from being constant and passive to one that was continuous and persistent. This changed the way people formed expectations and led to the breakdown of the curve, which was now just a scatter of points. In recent times, many such breakdowns are observed and many economies are still consistent with Phillips Curve. Having mentioned these assumptions and theoretical underpinnings, we can now look at the modern form, which measures the relationship between change in inflation and unemployment.

FIGURE-7: Effect Of Fall In NAIRU On Phillips Curve

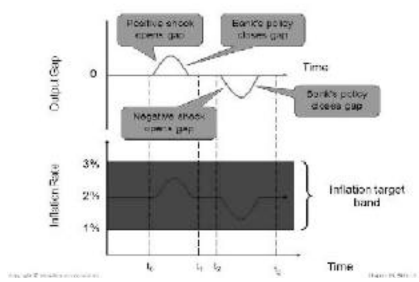
SOURCE- www.indecolearning.blogspot.com



The figure above is a graphical representation of the Phillips curve both in the short as well as long run. It depicts how a fall in the non-accelarating inflation rate of unemployment is consistent with achieving the targeted inflation rate. It also depicts how a decline in inflation expectations which may be due to deviation, import prices variability etc.

Figure-8: Response Of Output Gap To Shocks In Economy

SOURCE- www.ezyeducationuk.com



The above figure describes how output gap responds to shocks in the economy when the nation is following the Inflation Targeting Policy. We can see that a positive shock leads to an excess output being created leading to higher growth and efficiency, it also means the economy is overworking its resources which leads to a positive output gap, whereas a negative shock is unfavorable leads to decline in output and thereby a negative output gap which is undesirable.

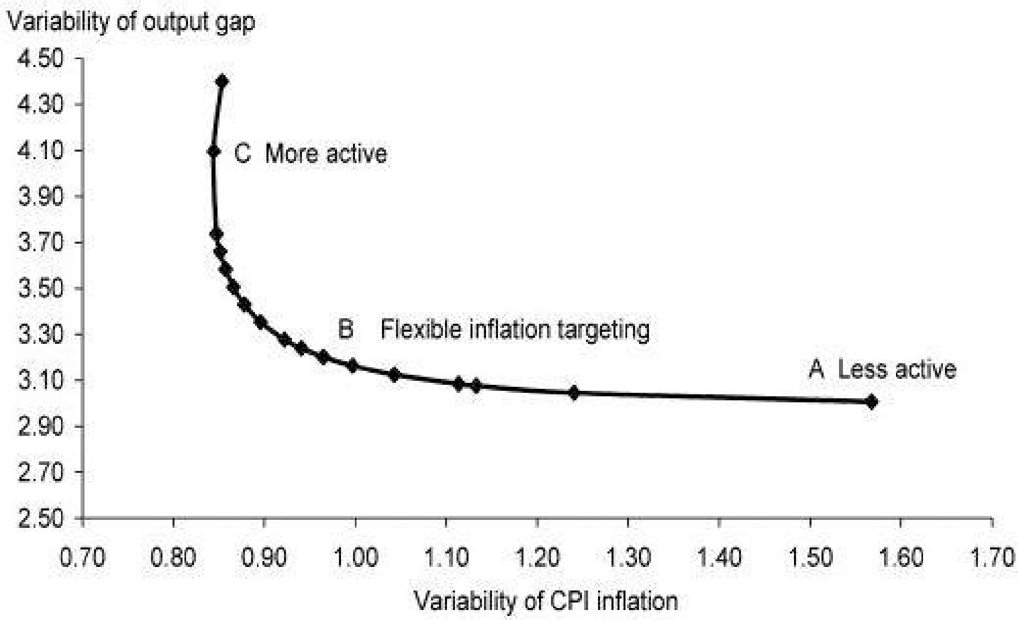
Turning to the parameters, it can be noticed that after implementation of IT, inflation is now less anchored on last year's inflation rate to long run expectations.

The Phillips curve is flatter which means, change in inflation is mostly due to temporary or short run deviations, and now differences in unemployment from it's natural rate are tougher to calculate. Excess demand pressures have a higher probability of being overpowered by noise now than before and deviations in output and unemployment have become more incompetent in predicting changes. It means that for IT keeps changes in inflation constant, the changes are mostly observed in unemployment rates.

Another point to be noted is the presence of a non-linear or horizontal Phillips Curve in countries such as India which may have adverse implications and may question the whole idea of adoption of the IT mandate. Deviations from the standard result may lead to ineffectiveness of IT. A.W. Phillips was unable to explain this relationship.

Figure-9

SOURCE- Reserve Bank of Australia: Research Discussion Paper: Inflation Targeting by Christian Gillitzer and John Simon RDP 2015-09



FINANCIAL STABILITY AND INFLATION TARGETING

With the help of evidence on emerging economies we find that, most countries who have adopted the IT policy follow a policy in which monetary action is constrained or inhibited whenever there is a rise in financial disparity, such a framework is referred to as 'flexible' inflation targeting. In any nation, the central bank reacts to the disparities in financial stability, though this also considers the inflation goal in mind. We also discover that even though counteractive measures are taken in reaction to the imbalances, the nations who have not implemented IT's finance sectors are less prone to disparity than those who have.

These are clashing views, which lead us to infer the following. At one instance, our inference regarding the analysis of the monetary policy-make us believe that inflation-targeting countries do not ignore the financial stability concerns. Actually, a lot of these central banks seem to care about financial stability when choosing their policy rate. At the other instance, inferences show that even though this monetary policy response to financial imbalances, inflation targeting regimes is more financially fragile, which could mean that a constrained monetary approach could reduce chance of financial losses. By not considering asset bubbles and other financial developments, IT can lead to significant chance of losses to economic well being of the nation. However, research has shown, IT should maintain it's goal to remove fluctuation in prices, and concurrently there could be use of macro prudential regulation and other policy tools to ensure financial stability by policy makers.

The recent financial crisis of 2008 has led to discussion and disputes on the use of "macro prudential instruments". These could be more dependable when considering how to handle financial fluctuations. Much research shows IT is relatively more successful when considering inflation stability. The main goal of monetary policy should be this, while financial stability should resolve with the help of "macro prudential instruments". Many economists have also held the view of formulating an "integrated inflation targeting policy."

We also need to consider the policy propositions with respect to these differences. One way is to have stricter capital adequacy, liquidity coverage standards. Higher quality capital will increase resilience to fluctuations. Second, to include macro prudential tools. Third, increasing transparency of banking sector. Without any financial considerations, would lead to the simple application and targeting of the inflation rate.

INFLATION TARGETING & EXCHANGE RATE VOLATILITY

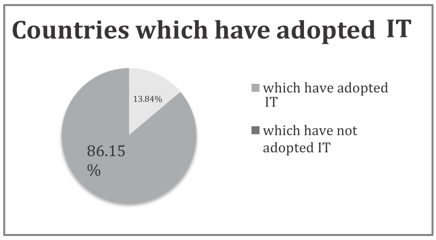
Inflation targeting results in exchange rate stability and decline in exchange rate volatility. Inflation is influenced by many factors domestic and abroad if the real exchange rate depreciates and the economy becomes open, the exchange rate depreciation as an effect of rising import prices becomes worse. Then, financial authorities do not want to allow inflation. They feel it would be better if the inflation rate were kept more flexible. Making the rate of inflation flexible allows their exchange rate to change in a desirable direction. However, when the inflation rate is high, it is ambiguous whether or not this case is applicable. However, some economists in India felt that introduction of inflation targeting could lead to exchange rate volatility here.

Exchange rate volatility poses questions regarding acceptance of flexible exchange rate as the exchange rate system in the economy. There is greater foreign exchange risk, may lead to destabilization due to changes in import-export prices through repercussion effect and can also lead to greater inflationary pressures for the home currency. It even changes the structure of the economy by impacting imports and exports. The impact of flexible exchange rate is different for different nations depending on their impact on the output and financial stability.

TRENDS, STATISTICS IN INFLATION TARGETING

FIGURE- 10: Countries, Which Follow The IT Policy

SOURCE- SELF-MADE

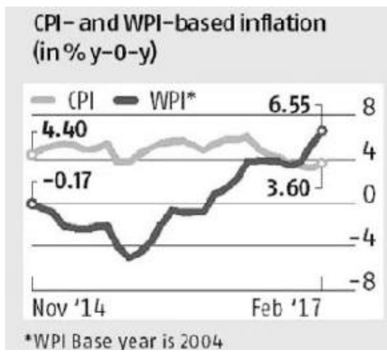


The above figure is a representation of the fact that 27 countries out of 195 have adopted inflation targeting whereas the rest 168 have not.

A number of developing nations use WPI to measure inflation, however, new CPI is now announced as the standard to measure it. In India, rates are generally stated by the means of changes in WPI including each & every good in the economy.
How the following have been affected post IT in India are shown as follows:

Figure-11: CPI & WPI Based Inflation

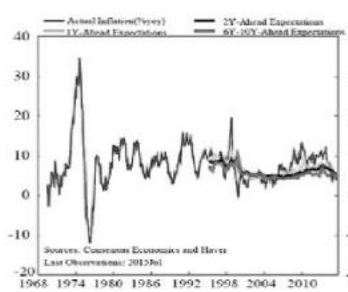
Source- Statistics of Ministry of Commerce & Industry



The above figure shows CPI and WPI for India over the time horizon from November 2014 to February 2017.

Figure-12: Inflation & Inflation Expectations in India

Source- www.rbi.org

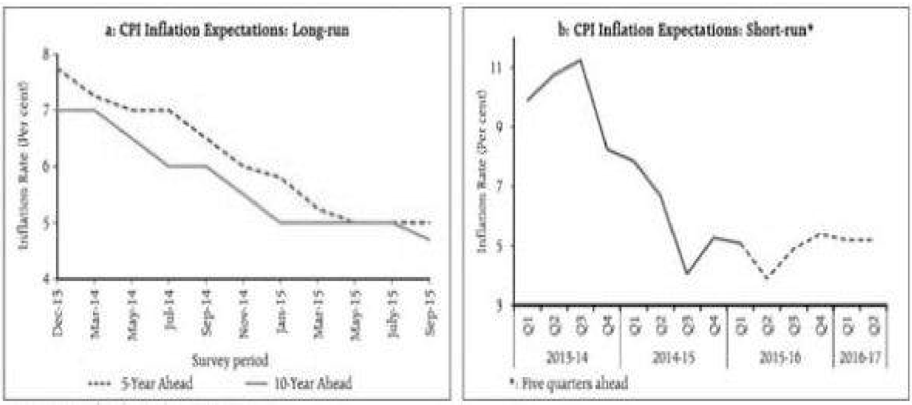


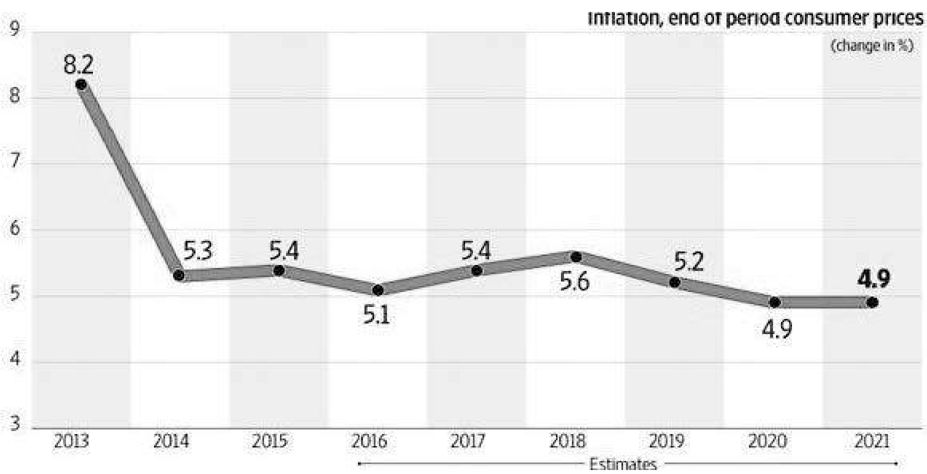
The above figure shows the level of actual inflation as well as the inflation expectations. We can visually interpret with the help of the graph how inflation expectations differ from the actual inflation levels. IT has succeeded in anchoring inflation expectations to policy target. It, however, is too short a period for definite conclusion apart from the fact that it is a period during which inflation and inflation expectations have declined due to various factors such as

- **Oil prices**
- **Adroit Management:** Demonetization led to "fire sales" by farmers, improved storing facilities and minimum prices have helped keep prices stable is the view of some economists.
- **New Base:** A new base has been chose for calculation of WPI, which may lead to stability in wholesale prices.
- **Food prices** are the core reason behind the decrease, prices of vegetables witnessed a fall

Figure-13: Inflation Expectations of Professional Forecasters

Source- Survey of Professional Forecasts, RBI

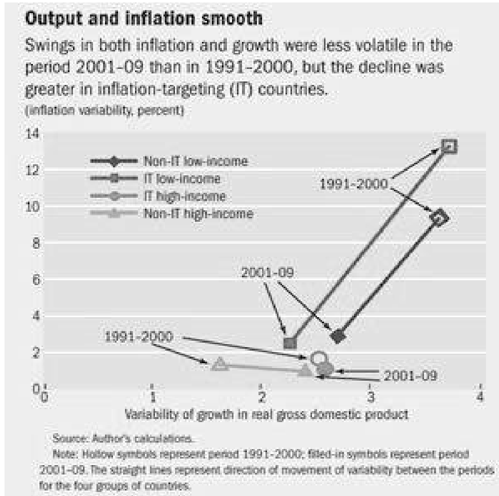




The above 2 figures show the CPI inflations for India. We can see that CPI Inflation as well as its expectations are becoming stabilized from mid 2015, indicating that this may be a result of adoption of the IT Policy.

Figure-14: Output & Inflation Smooth

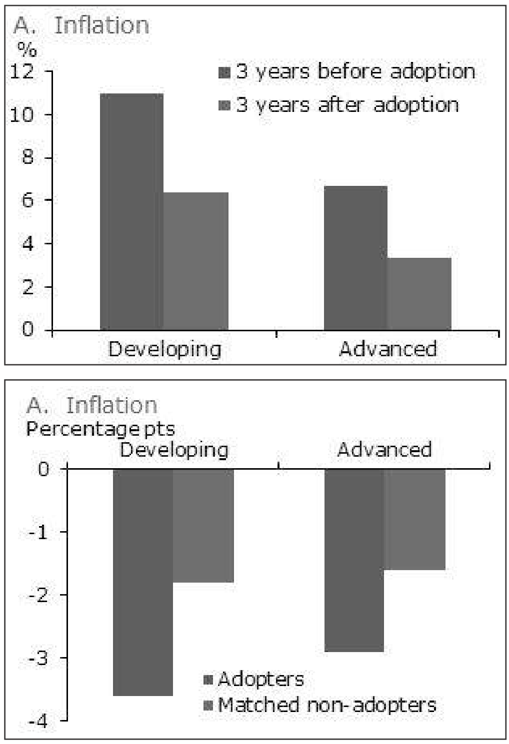
Source-www.imf.org



The above figure shows the variation of growth in output of the economy. We can interpret that the decline in variability is greater in nations that have implemented the IT mandate versus those that haven't. However, there are also certain other factors that must be taken into account that could have caused the same decline such as increase in productivity of capital etc.

Figure-15 Inflation In Developing & Advancing Nations

Source- www.imf.org



The above graph shows that inflation has declined after adoption of the inflation-targeting mandate for both developed and advanced nations.

The above graph shows that the percentage point decline in inflation is greater in countries, which have adopted the inflation targeting policy than those who haven't for both developed and advanced nations.

We must note an additional point here that even though there is a greater percentage decline in the countries, which have adopted IT, there has been higher inflation experienced by them. Therefore, we must draw our attention to another inference that can be drawn that IT does not only lead to positive changes but can also lead to increase in prices and thereby inflation even if rate of inflation is slowing. This can have major impact on the labor and goods market and hence must not be ignored, affecting the economy.

CONCLUSIONS

First, various economists have presented their views regarding the adoption of Inflation Targeting. In general, the view is that adoption of IT helps in reducing inflation rates successfully and achieving price stability. It also increases transparency and credibility of the monetary system of the economy.

Second, Inflation Targeting also helps to stabilize inflation expectations. Since inflation rates are fairly stable thereby expectations also tend not to change even during shocks unless they are adaptive.

Third, But the implementation and success of IT depends on a number of factors some of which are systematic framework, adequate financial markets, independence of monetary authority or central bank, flexible exchange rate. Many developing nations lack all these parameters, which may be a reason for the few number of countries who have adopted this policy.

Fourth, IT has worked successfully for almost all the countries that have adopted it, initial ones being, New Zealand & Canada, however, post the 2008 crisis, inflation rates haven't been as stable as before in Canada and there is underutilization of resources there. Therefore, it fails to take into account financial stability, but only considers price stability.

Fifth, We can also infer that there is ambiguity about its effectiveness in developing economies not just due to lack of a proper framework but because these economies are mainly agrarian in nature which is highly dependent on external factors such as geography, climate, monsoon etc. which IT unfortunately cannot target.

Sixth, Most developing economies do not have an efficient transmission mechanism imperative for successful implementation of IT.

Seventh, India, before the adoption of IT used to follow a multi-indicator approach which was quite successful where price stability, financial stability and output growth are considered for decision making. Various economists felt that India should stick to this multi-indicator approach because it has worked well in the past and a change could be that there could be increasing emphasis on price stability in this approach. Single variable approach may lead to economic slack as shown by many economists. However, some other economists are of the view that IT will give the RBI the autonomy it needs to take individualistic decisions.

Eighth, in a broader sense we can infer that the decline in variability is greater in nations that have implemented the IT mandate versus those that haven't.

Ninth, CPI has been chosen as the nominal index, the New CPI includes not only goods but also services such as hospitality and also value of imports. This means that it represents a more realistic scenario in India.
Tenth, there are conflicting views regarding financial stability and inflation targeting. General consensus leads us to believe, inflation-targeting countries are more vulnerable to financial risks, and resolvement of financial stability concerns should be left to "macro prudential tools".

Eleventh, Inflation targeting results in exchange rate stability and decline in exchange rate volatility.

Twelfth, policy prescriptions suggestions have been analyzed depending on the differences of considerations of financial stability within the IT framework.

Thirteenth, IT implementation leads to a decline in inflation rate but may lead to an increase in inflation. Hence it may also be undesirable.

Fourteenth, its undesirability has also been analyzed on the basis of differential Phillips curves observed in different nations and also the flexible exchange rate system that needs to adopted and may lead to foreign exchange risks and pose adverse changes in economic structures and destabilize the economy by expenditure switching.

Examination and analysis on the basis of our research has made us infer the aforementioned conclusions. The impact of Inflation Targeting on each economy varies significantly from the other depending upon various parameters. Hence, it is very difficult to ascertain what exactly will be the impact of the policy on the economy however we can try to interpret that through the various factors affecting IT, the level of development in the economy and through macroeconomic models.

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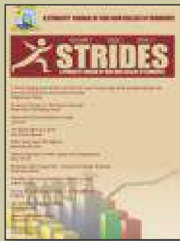

RELEASE OF FOUNDATION ISSUE OF STRIDES

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