CENTRAL BANK OF NIGERIA

UNDERSTANDING
MONETARY POLICY SERIES
NO 12

INFLATION TARGETING AS A MONETARY POLICY FRAMEWORK

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ISBN: 978-978-50341-7-2

Central Bank of Nigeria
Understanding Monetary Policy
Series 12, December 2011

Aims and Scope

Understanding Monetary Policy Series are designed to improve monetary policy communication as well as economic literacy. The series attempt to bring the technical aspects of monetary policy closer to the critical stakeholders who may not have had formal training in Monetary Management. The contents of the publication are therefore, intended for general information only. While necessary care was taken to ensure the inclusion of information in the publication to aid proper understanding of the monetary policy process and concepts, the Bank would not be liable for the interpretation or application of any piece of information contained herein.

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Central Bank of Nigeria

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▪Ensure Monetary and Price Stability
▪Issue Legal Tender Currency in Nigeria
▪Maintain External Reserves to safeguard the international value of the Legal Tender Currency
▪Promote a Sound Financial System in Nigeria
▪Act as Banker and Provide Economic and Financial Advice to the Federal Government

Vision

"By 2015, be the Model Central Bank delivering Price and Financial System Stability and promoting Sustainable Economic Development"

Mission Statement

"To be proactive in providing a stable framework for the economic development of Nigeria through the effective, efficient and transparent implementation of monetary and exchange rate policy and management of the financial sector"

Core Values

- Meritocracy
- Leadership
- Learning
- Customer - Focus

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SECTION ONE

Introduction

1.1 Background

Globally, it has been argued that monetary policy takes time to have an impact on the real economy and thus, central bank might need to base its policy changes on a forecast of inflation and not the current rate. This means that the central bank forecasts the future path of inflation which is compared with a specified target. Price stability is the primary goal of monetary policy. High rates of inflation might produce negative effects on economic performance as it prevents rational decisions on the part of savers and investors and tends to divert scarce resources away from productive uses. The consensus is that the best contribution a central bank can make to sustainable economic growth and enhance the welfare of the citizenry is to achieve and sustain price stability.

To achieve this objective, a typical central bank's toolkit is fortified with diverse monetary policy strategies. The failure of monetary or exchange rate targeting to yield acceptable monetary policy outcomes had led to adoption of Inflation Targeting (IT) in some jurisdictions. IT involves the announcement to the public in advance of a numerical target (point or a range) for inflation to be achieved with a time horizon. It is a legally-binding rate of inflation that must be pursued by the central bank and essentially, it is not a method to reduce the current inflation but an anchor to monitor and control price stability in an economy. Thus, it is a monetary policy framework in which the central bank uses its instruments to steer inflation towards a pre-announced target.

The critical success factor in implementing this framework is the need to have a continuous communication with the public about the plans, objectives and decisions of monetary policy. Therefore, the totality of the above stated issues is what constitutes IT framework and not just the numerical target.

1.2 What is Inflation?

In economics, inflation is defined as a persistent increase in the overall level of prices of goods and services in an economy over a period of time. It is a situation where too much money chases fewer goods and services. It emanates in an economy when the community has an increase in money supply but without corresponding increase in productivity. When the general price level rises, each unit of currency buys fewer goods and services, erodes savings, discourages investment, stimulates capital flight (as domestic investors put their funds into foreign assets, precious metals, or unproductive real estate), inhibits growth, makes economic planning a nightmare and in its extreme form, provokes social and political unrest. A former President of America, Gerald Ford stated that "when inflation approaches double digit, it is "public enemy number one" while Ronald Reagan described it as "cruelest tax". It is on this premise that governments in several economies have adopted several measures to squelch inflation through the adoption of conservative and sustainable fiscal and monetary policies.

1.3 What is a Monetary Policy Framework?

A monetary policy framework is any strategy which central banks use for conducting its monetary policy towards attaining the specified policy goal. Basically, the framework for monetary policy outlines the objective of policy, as well as the instruments and operating procedures for achieving the stated objective. World over, there are different strategies used by central banks in the conduct of monetary policy. These strategies affect the operating, intermediate and ultimate targets through different channels. The common strategies include; monetary targeting, exchange rate targeting, interest rate targeting, nominal gross domestic product or output targeting and inflation targeting.

Generally, as monetary policy objectives evolved over time, so also have the strategies (framework) used to attain them. As the names imply, those policy regimes target a monetary aggregate, exchange rate, an inflation measure, output or interest rate, respectively, in the bid to achieve the goal of price stability.

1.4. Why do we need a Monetary Policy Framework?

Globally, every government enunciates policies (fiscal, prices and incomes, as well as growth and development policy) to engender growth and development of the country. These policies are in place for the achievement of:

(i) High rate of growth of real output in the economy;
(ii) Low and stable rate of inflation;
(iii) Low level of unemployment; and
(iv) Ensuring balance of payments equilibrium.

In achieving the above, monetary policy is applied by the monetary authorities through a package of measures and instruments to control the value, supply and cost of money.

SECTION TWO

The Concept of Inflation Targeting

2.1 What is Inflation Targeting?

Inflation targeting is a monetary policy strategy in which central bank estimates and makes public a target inflation rate and then, attempts to steer actual inflation towards the target through the use of other key macroeconomic variables such as interest rate changes and other monetary tools. It can also be described as a framework in which the primary goal of monetary policy is to achieve price stability in form of an inflation target.

Of all the monetary policy frameworks, the preference for inflation targeting by many central banks in their pursuit of the price stability objective is due to changing relationships between different measures of monetary aggregates and policy targets, induced largely by financial sector liberalization and deregulation, advances in information technology and globalization. The attraction of inflation targeting stems from the perception that it can moderate inflationary expectations much better than other monetary policy frameworks, especially when supported by a transparent operating and policy environment.

The difference between the forecast and target under an IT regime determines how much monetary policy has to be adjusted. Some countries have chosen inflation targets with symmetrical ranges around a midpoint, while others have identified a target rate or an upper limit to inflation. All countries have set their inflation targets in the low single digits. It must, however, be stressed that an inflation target of zero is not recommended because it would not allow real interest rates to fall sufficiently to stimulate overall demand when a central bank is trying to boost the economy.

2.2 Features of Inflation Targeting

An important feature of IT is that it clearly specifies the inflation objective and a clear commitment to the achievement of this objective. Given that monetary policy works in part by influencing inflation expectations. IT involves the following elements:

- proper definition of the type of inflation being targeted (core or headline inflation);
- Choice of the measure to be used(producer price index, wholesale price index or retail price index);
- Specify, whether it is point or range targeting;

- Institutional commitment to price stability as the primary goal of monetary policy by the fiscal and monetary authorities under an environment of effective fiscal and monetary policy co-ordination and getting a commitment to achieving that target; and
- IT requires increasing the transparency of the monetary policy process through communication with the market and public about plans and objectives of monetary policy, and increasing the accountability of the central bank for achieving the IT.

2.3 What are the preconditions for Inflation Targeting?

Some of the pre-conditions for implementing an IT regime successfully include:

2.3.1 Independence of the Central Bank

The first requirement for the adoption of IT in any country is a considerable degree of central bank independence. This will be in form of instrument or goal independence, and a monetary policy environment unconstrained by fiscal dominance. What this means is that public sector borrowing from the central bank should be low or non-existent, while government should have a broad revenue base.

2.3.2 Institutional Considerations

The domestic financial market should have enough depth to absorb public and private debt placements, while the accumulation of public debt should be sustainable. There should also be the absence of multiple policy objectives, meaning that other objectives, such as high employment, exchange rate stability, etc, must be subordinated to the inflation objective.

2.3.3 Technical Considerations

Technical considerations such as the availability of data/information and appropriate models for inflation forecasting that provide the monetary authorities with the right signals about the time-path of future inflation in order to successfully achieve the target and guarantee sustained macroeconomic stability.

2.4 Types of Inflation Targeting

In the literature, three categories of IT have been identified. These include Full Fledged Inflation Targeting (FFIT), Eclectic Inflation Targeting (EIT) and Inflation Targeting Lite (ITL).

2.4.1 Full-Fledged Inflation Targeting (FFIT): This is the best known form of IT. FFIT countries have a medium to high level of credibility, clearly committed to their inflation target, and institutionalize this commitment in the form of transparent monetary framework that fosters accountability of the central bank to the target.

New Zealand was the first country to adopt FFIT and, by 2001, some seven (7) industrialized and eleven emerging market countries were practicing this regime.

2.4.2 Eclectic Inflation Targeting (EIT): EIT countries command sufficient credibility that can afford them to maintain low and stable inflation without full transparency and accountability. Their record of low and stable inflation coupled with high degree of financial stability enables them to pursue other monetary policy objectives besides price stability. Examples of central banks that have been classified as practicing EIT include the United States Federal Reserve Bank and the European Central Bank.

2.4.3 Inflation Targeting Lite (ITL): ITL countries announce a broad inflation objective, but owing to relatively low credibility, are not able to maintain inflation as the foremost policy objective. Their relatively low credibility reflects vulnerability to large economic shocks, financial instability and a weak institutional framework. ITL can be viewed as a transitional regime during which the authorities implement the structural reforms needed for the credible adoption of a single nominal anchor. About nineteen (19) emerging market countries have been classified under ITL.

2.5 What are the Instruments Employed in Inflation Targeting?

The instruments used under the IT framework are similar to those used by central banks in pursuit of their monetary policy objectives under other frameworks. These instruments include, reserve requirements, open market operations, discount window operations and the use of exchange rate to attain the policy goal. These are discussed as follows:

2.5.1 Cash Reserve Ratio (CRR)

CRR is a specific ratio of bank's deposit that is kept as with the central bank and does not earn interest. If the desire is to pursue a tight monetary stance, CRR is raised in order to limit the ability of banks to create money. If the aim is to pursue a loose monetary stance, CRR is reduced to enable banks to give more loans and credits.

2.5.2 Liquidity Ratio (LR)

LR is the percentage of banks' deposit liabilities that must be kept in liquid assets, mostly in government treasury instruments, which can be turned into cash as quickly as possible if and when the need arises. LR for banks in Nigeria is presently set at 30.0 percent. The use of LR is more of a prudential requirement than a liquidity management instrument.

2.5.3 Open Market Operations (OMO)

OMO is a major instrument that entails the injection or withdrawal of funds from the banking system in order to achieve monetary policy objectives. OMO targets the free reserves of the banks by either selling bills to banks in order to reduce their free reserves or buy bills from banks in order to increase their free reserves. When central banks sell bills to banks, they debit the current accounts of banks and increase their bill holdings by the volume of the bills sold. When the central banks buys bills from the banks, the current accounts of banks are credited with the cash and their holdings of bills are reduced by the cash equivalent of the bills.

2.5.4 Discount Window Operations (DWO)

Discount Window Operations is also used in the conduct of monetary policy that provides lending by the central bank to Deposit Money Banks (DMBs). In particular, it entails the use of repurchase (REPO) and reverse repurchase (reverse REPO) agreements between the central bank and market operators.

2.5.5 Monetary Policy Rate (MPR)

Policy Rate otherwise called Monetary Policy Rate "MPR" in Nigeria is an instrument of monetary policy used by central banks to influence short term interest rates in the money market through the management of an interest rate corridor backed by the central bank's standing lending and deposit facilities. The use of this instrument is helpful to a central bank that is desirous of transiting to implicit inflation targeting.

2.5.6 Exchange Rate as an Instrument of Monetary Policy

Most central banks intervene in the foreign exchange market for liquidity management purposes in order to achieve its monetary policy objectives by buying and selling foreign currency. This medium is often strengthened to achieve the price stability objective of the central bank under an Inflation targeting framework.

2.6 What are the Advantages of Inflation Targeting?

The most visible advantage which IT has over other monetary policy frameworks is the identification of a forward-looking and quantifiable target upon which policy decisions are based. Since economic units essentially develop expectations for the future, IT appears a more realistic guide to central bankers and the entire public alike, on the desired path of economic developments. This is due to the fact that the announcement of the set goals to the public elicits a reasonable measure of commitment from monetary policy operators. Central bankers are aware that public knowledge about the set targets constitutes a benchmark by which the effectiveness of policy is gauged.

Unlike other frameworks that depend on certain hypothetic relationships amongst economic variables, IT leaves room for macroeconomic variables to assume any shapes without distorting the fundamentals of an economy. For instance, in the monetary targeting regime, the demand for money function has to be stable for the framework to be useful. So the revealed instability of the function has completely negated the efficacy of monetary targeting. However, in the case of IT, even when there is a variation in the frequency or volume of interaction among variables, the framework remains undiluted, as it draws information from current conditions to determine the consistent policy responses.

Other advantages of IT framework include:

- It facilitates the communication of policy intentions to the public and imposes accountability and discipline on the central bank as well as on the government itself; and

- Reduces the likelihood that the central bank will fall into the time inconsistency trap.

SECTION THREE

Inflation Targeting: Country Experiences and Lessons for Nigeria

3.1 Origin

In 1989, New Zealand adopted IT and since then, not less than twenty-nine (29) countries have introduced the framework. In addition, several other central banks, including European Central Bank (ECB), Swiss National Bank, and United States Federal Reserve, have moved towards regimes that have many of the attributes of IT. Through the 1990s, IT was almost entirely confined to advanced "industrial" countries. With effect from late 1990s, an increasing number of emerging market and developing economies have adopted the framework and such economies are now the substantial majority of inflation targeting countries.
The numerical inflation target for advanced countries is typically around 2.0 percent at an annual rate for the Consumer Price Index (CPI) or core CPI, in the form of a range, such as 1.0 - 3.0 percent in New Zealand; or a point target with a range, such as a 2 percent point target with a range or interval of ±1 percentage points in Canada; or a point target without any explicit range, such as 2.0 percent in Sweden and the U.K. and 2.5 percent in Norway. A central bank with a target range seems to aim for the middle of the range. The edges of the range are normally interpreted as "soft edges," in the sense that they do not trigger discrete policy changes and inflation just outside the range is not considered much different from just inside.

Numerical inflation targets for emerging markets and developing countries are typically a few percentage points higher than 2.0 per cent. In practice, inflation targeting is never "strict" but always "flexible," in the sense that all Inflation-targeting central banks not only aim at stabilizing inflation around the inflation target but also put some weight on stabilizing the real economy (Ojo,2001).

Thus, the target variables of the central bank include not only inflation but other variables as well, such as the output gap. However, for new inflation-targeting regimes, where the establishment of "credibility" is a priority, stabilizing the real economy probably has less weight than when credibility has been established. Over time, as inflation targeting progresses, flexibility of the process improves with central banks becoming increasingly transparent.

It has also been argued that because there is a lag between monetary policy actions and its impact on the central bank's target variables, monetary policy is more effective if it is guided by forecasts. The implementation of inflation targeting therefore gives a main role to forecasts of inflation and other target variables. It can be described as forecast targeting, i.e., choosing a policy rate path such that the forecasts of the target variables, conditional on that policy path, "look good[1]" (Mishkin, 2000). 'Look good' in the circumstance means that the forecast inflation approaches the target inflation rate at an acceptable pace.

3.2 Experiences of Developed Economies

Experiences from countries that have adopted IT especially the developed countries, showed that foundations for successful full-fledged inflation targeting are built on having a strong fiscal position and entrenched macroeconomic stability. Also, there must be a well-developed financial system with an independent central bank and a mandate to achieve price stability. There is also the need to reasonably understand the transmission mechanism between monetary policy actions and inflation; have in place a sound methodology for constructing inflation forecasts and transparency to build accountability and credibility.

These include the following:

- To adopt inflation targeting, there is need to have a good model for forecasting inflation over the medium term horizon of at least two to three years;
- This model should be operationalized and used to track the deviation of actual inflation from forecast for at least two years, and adjudged to be efficient before the bank adopts the inflation target;
- The Central bank would have to determine which inflation to adopt: CPI or Retail Price Index (RPI);
- Ascertain the level of inflation expectation by the economic agents and the central bank legislation on adoption of the monetary policy framework
- Communication needs must be adequately identified and channels appropriately defined; also the level of inflation that is consistent with the desired level of economic activities in the economy should be ascertained.

3.3 Experiences of African Countries

Majority of the countries that have adopted IT are developed countries and some emerging market economies. In Africa, only South Africa and Ghana have embraced the framework. Several other African countries including Botswana,

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[1] look good" means that the forecast for inflation stabilizes inflation around the inflation target and the forecast for resource utilization stabilizes resource utilization around a normal level

Mauritius, Uganda, Angola, Zambia, Kenya, Sudan and Tunisia are planning to introduce the framework in the medium-term (3-5 years). For these African countries and other developing countries, their experiences appear very stringent at initial stage but became interesting.

3.3.1 South Africa

Since the establishment of the South Africa Reserve Bank (SARB) over 90 years ago, it has experimented with different policies aimed at ensuring the achievement of its mandate. Inflation in the 1970s and 80s was in the double digits which prompted a shift to IT as a strategy to minimize the economic impacts of inflation. It was the SARB's belief that IT brought with it, clear and explicit objectives as well as transparency. Thus, under the Inflation targeting framework, the target is set by government between 3.0 - 6.0 per cent per annum. As an independent institution, SARB uses its instruments (primarily the repurchase rate) in such a way that the target is achieved. In South Africa, IT had been conducted with flexibility, with considerations for financial stability and broader economic performance. The Monetary Policy Committee (MPC) entertains diverse viewpoints before decisions are taken, but also ensures moderation of extremes. Since the commencement of IT in the country, inflation has dropped significantly and is currently below 5.0 per cent.

3.3.2 Ghana

The Bank of Ghana (BOG) Act 612 of 2002 set the tone for IT in the country. The law gave the BOG independence in the discharge of its monetary policy with the primary objective stated explicitly as price stability. The law had explicit provisions on government financing and it established a Monetary Policy Committee which had responsibility for the conduct of Monetary Policy. The MPC had since entrenched various institutional, operational, accountability and transparency arrangements to help in the effective discharge of its functions. The MPC meetings are held six-times in a year as stipulated by Law and the Committee critically examines data and technical reports covering developments in all the areas of the economy. In the assessment of growth potentials, especially, in the real sector, BOG uses the Composite Index of Economic Activity (CIEA) as a key indicator. Also, business and consumer confidence surveys are employed to guage economic activity. A suite of models is employed in the assessment of current price conditions and inflation forecast**.** Since the commencement of IT in the country, inflation has dropped from double to single digit and the Bank is poised to reduce it below 5.0 per cent.

Some of the challenges in Ghana and South Africa included fiscal liquidity, the need for high frequency data for forecasting and the dynamic global environment that requires staff to constantly update their competencies on the emerging issues.

3.4 Successes of Inflation Targeting Framework from Other Economies

Several studies have been conducted to assess the impact of IT on the adopting economies.

3.4.1 Low Inflation Rate: Bernanke et al (1999) undertook a comprehensive survey of the experiences of the early industrial countries (New Zealand, Canada, United Kingdom, Sweden, Israel, Spain and Australia) that adopted IT as a framework for monetary policy. Their basic finding was that IT resulted in lower inflation in these countries. Both the rates of inflation and inflation expectations were significantly reduced as a result of the adoption of IT in comparison to their previous experiences. The study also found that resulting low inflation remained at low levels even during the later period of cyclical economic expansion.

3.4.2 Reduction in Output Loss: Batini et al (2005) observed that countries adopting IT did not experience significant output losses as a result of lower inflation levels. The experiences of Canada, United Kingdom and Sweden further suggest that the effects of economic shocks on inflation were not significant because people's expectations had been favorably adjusted under the IT framework. However, reduction in inflation was associated with lower than normal l output level during the disinflationary process.

3.4.3 Reduction in Target Misses: Roger and Stone (2005) studied 22 full-fledged inflation-targeting central banks and found that inflation outcomes were generally within targets for both industrial and emerging market countries. The study observed quite frequent misses of targets in the IT regimes and attributed the misses to external and domestic shocks. The external shocks arose from changes in capital inflows as well as movements in world fuel prices. Domestic shocks were triggered mainly by changes in fiscal and monetary policies as well as in domestic food supply.

3.4.4 Improved Financial System Stability: The performance of emerging market countries under IT has been impressive from IT operational flexibility which prevents conflicts between the inflation target, nominal anchor and other potential anchors.

3.5 What are the Challenges of Inflation Targeting?

IT has performed well in different economies, a number of issues and challenges still abound; they include:

- There is no guarantee that the central bank will be successful in using its discretion to appropriately design and implement monetary policy.
- The forward-looking nature of IT requires taking into consideration the potentially lags between changes in monetary policy and their influences on inflation. The central banks require access to both an effective inflation-forecasting model and policy instruments to control inflation with reasonable precision. In addition, the forward-looking nature of an IT framework introduces some uncertainties.
- It is difficult to control inflation when the effects of policy instruments on inflation come with lag. In this case, forecast errors and frequent target misses will be inevitable. As a result, central bank will have some difficulties in explaining the reasons for deviations from the target and in gaining credibility, which is crucial to the inflation-targeting regime.
- It has also been asserted that the initial disinflation process resulting from the introduction of inflation targeting may lead to short-term output loss if private agents do not immediately find the policy framework credible.
- Inflation targeting requires exchange rate flexibility, which may cause financial instability.

SECTION FOUR

Assessing Nigeria's Preparedness for Inflation Targeting

4.1 Should Nigeria/CBN Adopt Inflation Targeting Framework?

It has been advanced in many circles that in Nigeria, the money demand fluctuates widely and thus, the transmission mechanism of monetary policy becomes unclear, indicating that the CBN cannot easily control monetary growth and inflation. The instability in both base money and M2 velocity were noted by Mordi (2008) and Uchendu (2008) when they posited that both variables fluctuated widely and mostly below their average levels. Over the forty-year period reviewed by Mordi (2008), the M2 multiplier was found to be rather unstable. Thus, Uchendu (2008) concluded that "the ideal conditions for the effectiveness of the (current) monetary targeting strategy no longer exist in the case of Nigeria" which justifies the need for a change in the monetary policy strategy.

Since inception, the CBN has used two frameworks for the implementation of monetary policy namely: exchange rate targeting and monetary targeting. Exchange rate targeting framework was used between 1959 and 1974, while monetary targeting has been in use from 1974 to date. The shift to monetary targeting was largely informed by the collapse of the Bretton Woods system of fixed exchange rates in 1974 and a change in strategy to demand management as a means of containing inflationary pressures and balance of payments imbalances. The shift to IT by the countries involved has been ascribed to several factors, such as increasing difficulties in applying the other frameworks, the strong determination to improve on their inflation records, achieving improved credibility of monetary policy, as well as enhancing greater communication with the public in a concerted effort to curb inflationary tendencies.

4.2 Is the CBN/Nigeria Ready to Adopt Inflation Targeting?

Nigeria has indicated intention to transit to IT as a framework for monetary policy. Apparently, preparations are being made for the transition when viewed from the following standpoints:

- There are developments, since the beginning of the debate in January 2000, which have improved the regulatory and operating environment leading to the attainment of some of the critical success factors. Generally, there is a better understanding of the benefits of a stable macroeconomic environment as a pre-requisite for sustainable economic growth and poverty reduction in Nigerian.

- The CBN has demonstrated its independence in the conduct of monetary policy in the last eight years. The success of the Bank in the policy induced consolidation of banks through mergers and acquisition in 2005, liberalizing and sanitizing and prosecuting CEOs of some Deposit Money Banks in 2009, setting up of Assets Management Company (AMCON), improved operating environment that has improved financial institutions credibility, and the depth and health of the financial market, through which the transmission of monetary policy occurs and interventions in various sectors of the economy lends credence to Bank's operational independence.
- The publication of a summary of the Monetary Policy Committee (MPC) meeting decisions, and the holding of public discourse such as the Monetary Policy Forum and Conference, as well as speeches by top Management, have provided the Bank with the opportunity and mechanism for enhancing policy advocacy, transparency and accountability.
- These indications suggest that there is an emerging commitment to satisfy the pre-conditions for a successful transition to an IT framework.

SECTION FIVE

Setting the Inflation Threshold and Communicating the Outcomes

5.1 Rationale for Communication

Communication promotes support for IT policy framework; provides monetary policy accountability and maximizes monetary policy credibility. The major reason for strengthening communication by central banks is to be transparent and accountable. Specifically, communication is aim at complimenting central bank autonomy, improving effectiveness of monetary policy and reducing information risk regarding decisions and actions of monetary authority.

Four basic things are worthy of note in communication especially when dealing with Inflation targeting outcomes. The first aspect is not to be afraid of speaking the outcomes. In other word, there is the need for clarity and accurate reportage.

Second, is the need to defend the policy outcome. Irrespective of the policy outcome, there is strong requirement for evidence-based explanations. The worst thing to do is to display signs of weakness and credibility concerns. The strength of communication will surely determine the effect on target audiences.

The third aspect of communicating inflation outcomes is expressing perfectly intended message; while the fourth has to do with the listening part. The monetary authority has to do more listening from the critical stakeholders so as to strengthen the feedback loop and enhance quality communication of policy decisions and outcomes.

5.2 How Should the Authority Set the IT Threshold?

Usually, Inflation targeting commences with a joint public announcement by the central bank or the government (through the Ministry of Finance or Treasury) of an explicit quantitative target for inflation to be achieved during a specified time horizon. For example, the central bank or the government can say that inflation threshold is set at 8.0 per cent during the following two years. Subsequently, the central bank, which is expected to have 'instrument independence', is responsible for achieving this target and should provide regular public information about its strategy and decisions.

Premised on the above, IT consists of two parts namely, a policy framework of constrained discretion and a communication strategy that tries to focus on expectations and explain the policy framework to the public. These two elements, put together, promote both price stability and well-anchored inflation expectations. Consequently, a well-conceived and well-executed strategy of inflation targeting can achieve good results as regards output, and employment as well as inflation.

5.3 Why Should Central Bank Communicate Inflation Outcome?

Central banks care about how they communicate under IT for two main reasons. First, politics is an important aspect of the economy but central banks suffer 'democracy deficit'[2] in the sense that they make rules and regulations for the public without being elected. Hence a central bank's main concerns in communication are **Accountability** and **Legitimacy**. Second, economic growth and development are central to public policy making; thus, central banks factor in credibility in their communications to guide the expectations of economic agents. Another issue often raised is how best central banks should present policy decisions under an IT framework. Central banks present policy decisions to suit their institutional framework through the use of the following approaches:

- Minutes and press conferences
- Many voices but same message or single voice with same message
- Two broad types of audience must be reached on regular basis. These include: financial market participants/commentators and the public/politicians.

Essentially, the tools for communication under IT framework include Inflation report, MPC minutes and press releases and ad-hoc speeches /meetings/interviews by MPC members.

5.4 Are There Communication Challenges Under Inflation Targeting?

The major challenges communication faces in practice of IT framework are:

- How much to say about future policy, for example, policy rate expectations;
- The need to make people aware of limits of what monetary policy can achieve. This becomes particularly important if the conditions become less favorable to change the fundamentals on the economic scale;
- There is also the need to broaden reach of communication- monetary authorities need to take bolder approach in reaching a wider audience. This has been a challenge particularly where print media

[2] The term was initially used to criticise the transfer of law making powers from national governments to the Council of Ministers of the European Union (EU). Elgie, Robert (2002) has broadened the term by applying it to the European Central Bank (ECB) in relation to member countries central banks.

are urban based and adequate power supply remained a mirage in developing countries especially in the rural areas;

- Which agency should be responsible for what? In our dispensation, the forecast of the target should be carried out by the Monetary Policy Department, which has the primary responsibility for the success of the programme, while the National Bureau of Statistics should continue to compute and announce ex-post inflation results as statutorily mandated;
- The need to design a model that will forecast inflation and the transmission mechanism of monetary policy as well as communicating its lag structure; and
- Should the Economic Team or the Federal Executive Council be involved in the planning process? A mutually agreed consultation process can be set. An agreed target with the implications can be set.

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APPENDIX

Table 1: Features of Inflation Targeting Countries

Country	IT Adoption Date (1)	Target Horizon (2)	Inflation Measure (3)	Point Target (%) (4)	Target Range (%) (5)
New Zealand	1990 Q1	Medium-term/Indefinite	HCPI	None	1-3
Canada	1991 M2	Medium-term	HCPI	2.0	1-3
United Kingdom	1992 M10	Indefinite	HCPI	2.5/2.0	+/-1.0
Sweden	1993 M1	Indefinite	HCPI	2.0	+/-1.0
Finland	1993 M2	Indefinite	HCPI	2.0	
Australia	1993 M4	Medium-term	HCPI	None	2-3
Spain	1995 M1	Medium-term	HCPI	None	0-3
Czech Republic	1997 M12	Annual/Multi-year	HCPI	4.5/2.0	+/-1.0
Isreal	1997 M6	Annual/Indefinite	HCPI	None	1-3
Poland	1998 M10	Medium-term/indefinite	HCPI	4.0/3.0/2.5	+/-1.0
Brazil	1999 M6	Annual	HCPI	4.0/3.75	+/-2.5
Chile	1999 M9	Annual/Indefinite	H/C CPI	3.0	2-4
Colombia	1999 M9	Annual/Long-term	HCPI	5.5/3.0	5-6
South Africa	2000 M2	Annual/Medium-term	CPI	None	3-6
Thailand	2000 M5	Indefinite	CCPI	None	0-3.5
Korea	2001 M1	Annual/Medium-term	HCPI		2.5-3.5
Mexico	2001 M1	Annual/Long-term	HCPI	3.0	+/-1.0
Iceland	2001 M3	Multi-year/Indefinite	HCPI	2.5	+/-1.5
Norway	2001 M3	Indefinite	CCPI	2.5	
Hungary	2001 M6	Annual/Long-term	HCPI	3.5/2.0	+/-1.0
Peru	2002 M1	Indefinite	HCPI	2.5	+/-1.0
Philipines	2002 M1	Annual	HCPI	None	4-5
Guatamela	2005 M1				
Slovakia	2005 M1	Three years	HCPI		
Indonesia	2007 M7	Medium-term	HCPI		
Romania	2005 M8	Two years	HCPI		
Turkey	2006 M1	Three years	HCPI		
Serbia	2006 M9				
Ghana	2007 M5		HCPI		

Notes: HCPI = Headline CPI; C CPI = Core CPI; M1 - M12 = January-December; Excludes Mortgage Interest
Q1 = First Quarter;
Sources: Adapted from Roger and Stone (2005, Page 8); Heenan, Peter and Roger, 2006, Page 19;
Roger, 2009, Page 6.

Table 2 : Summary of Inflation Targeting Frameworks

	Institutional Framework
Central Bank legal framework	Instrument independence and currency or price stability is a central bank objective in all cases. Central Bank financing of government deficit is imited or prohibited in all emerging market countries.
Design of the inflation target Announcement of target	Announced by government or jointly by governement and central bank, unless the central bank has an explicit mandate for price stability as the primary objective.
Target horizon	Indefinite for countries at longer-run inflation rate and annual for countries in disinflation.
Price index	Consumer price index for most emerging market countries and core inflation for industrial countries.
Formal escape clauses	Only used by several countries.
Point target or target range	Target range preferred by most countries given uncertainties associated with hitting targets. Point targets have been adopted in some casesto focus inflation expectations.
Accountability and transparency	Press releases of policy changes, regular inflation outlook reports, active dialogue with private the sector, and in some cases, publication of inlfation forecasting models.
	Operational Issues: Conduct of Monetary Policy
Inflation forecasting	Based on the indicator variables, quantitative economic models, discussions with market particpants, and, especially for emerging market countries, qualitative judgement.
Policy transmission channels	Emerging market countries with higher rates of inflation have channels characterized by downwardprice stickiness and rapid exchange rate pass-through.
Policy Implementation	All countries use market-based instruments to target a short-

	term interest rate. Changes in official interest rates reflect deviations of inflation from the target and the output gap.
Changing economic relationships	As inlation targeting framework gains credibility, linkages between inflation and the level of economic activity seem to weaken.
Responding to economic and financial shocks	Resposnses to external shocks range from doing nothing to a mixture of foreign exchange intervention and tighter monetary policy, depending on whether shocks are expected to affect inflation expectationsor the stability of the financial system.
Breaches of the inflation target	Asymmetric responses to breaches of floor and ceiling during disinflation, and symmetric responses when inflation is at the long-run level; breaches do not seem to have damaged credibility.
Organizational Implications of Central Banks	
Internal decision making	Many central banks have incorporated a broader range of perspectives and decentralized their organizational structure to enhance judgement-based decision making.
Monetary policy committees	Most central banks have formal committees. Concensus decisions are typically published while voting records are not.
Central bank organization	Emerging market central banks have reorganized to improvedata collection, inflation forecasting,and policy analysis.
Transition Issues	
Disinflation	Emerging market countries that started with higher inflation and crawling exchange rate bands disinflated over a long period to minimize output disruptions.
Long-run inflation objective	Concensus of around 1 - 3 percent for industrial countries and somewhat higher for emerging market countries.
Shifiring from a fixed exchange rate regime	Slow and fast-track transitions from an exchange rate regime to full-fledged inflation targeting framework for emergin market countries.

Source: Adapted from Andrea Shaechter, Mark R. Stone, and Mark Zelmer, 2000, Page 2.