CENTRAL BANK OF NIGERIA

UNDERSTANDING MONETARY POLICY SERIES NO 12

INFLATION TARGETING AS A MONETARY POLICY FRAMEWORK

©2021 Central Bank of Nigeria

Central Bank of Nigeria
33 Tafawa Balewa Way
Central Business District
P.M.B. 0187
Garki, Abuja
Phone: +234(0)946236011
Fax: +234(0)946236012
Website: www.cbn.gov.ng
E-mail: info@cbn.gov.ng

ISBN: 978-978-51972-2-8

© 2021 Central Bank of Nigeria

Central Bank of Nigeria
Understanding Monetary Policy
Series 12, 2021

EDITORIAL TEAM

Editor-in-Chief
Hassan Mahmud

Managing Editor
Omolara O. Duke

ASSOCIATE EDITORS
Ladi R. Bal-Keffi
Lawrence O. Akinboyo
Isa Audu
Abubarkar A. Ahmad
Oluwafemi I. Ajayi

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.

Subscription and Copyright

Subscription to Understanding Monetary Policy Series is available to the general public free of charge. The copyright of this publication is vested in the Central Bank of Nigeria. However, contents may be cited, reproduced, stored or transmitted without permission. Nonetheless, due credit must be given to the Central Bank of Nigeria.

Correspondence

Enquiries concerning this publication should be forwarded to: Director, Monetary Policy Department, Central Bank of Nigeria, P.M.B. 0187, Garki, Abuja, Nigeria, E-mail: info.dmp@cbn.gov.ng

Central Bank of Nigeria

Mandate

▪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

"To be a people-focused Central Bank promoting confidence in the economy and enabling an improved standard of living"

Mission Statement

"To **ENSURE** Monetary, Price and Financial System Stability as a Catalyst for Inclusive Growth and Sustainable Economic Development."

Core Values

Integrity

Partnership

Accountability

Courage

Tenacity

MONETARY POLICY DEPARTMENT

Mandate

To Facilitate the Conceptualization and Design of Monetary Policy of the Central Bank of Nigeria

Vision

To be Efficient and Effective in Promoting the Attainment and Sustenance of Monetary and Price Stability Objective of the Central Bank of Nigeria

Mission

To Provide a Dynamic Evidence-based Analytical Framework for the Formulation and Implementation of Monetary Policy for Optimal Economic Growth

FOREWORD

The Understanding Monetary Policy Series is designed to support the communication of monetary policy by the Central Bank of Nigeria (CBN). The series therefore, explain the basic concepts/operations, required to effectively understand the monetary policy framework of the Bank.

Monetary policy remains a very vague subject area to the vast majority of people in spite of the abundance of literature on the subject, most of which tend to adopt a formal and rigorous professional approach, typical of macroeconomic analysis.

In this series, public policy makers, policy analysts, businessmen, politicians, public sector administrators and other professionals, who are keen to learn the basic concepts of monetary policy and some technical aspects of central banking, would be treated to a menu of key monetary policy subject areas that will enrich their knowledge base of the key issues.

In order to achieve the primary objective of the series therefore, our target audience include people with little or no knowledge of macroeconomics and the science of central banking and yet are keen to follow the debate on monetary policy issues, and have a vision to extract beneficial information from the process. Others include those whose discussions of the central bank makes them crucial stakeholders. The series will therefore, be useful not only to policy makers, businessmen, academicians and investors, but to a wide range of people from all walks of life.

As a central bank, we hope that this series will help improve the level of literacy on monetary policy and demystify the general idea surrounding monetary policy formulation. We welcome insights from the public as we look forward to delivering contents that directly address the requirements of our readers and to ensure that the series are constantly updated, widely read and readily available to stakeholders.

Hassan Mahmud
Director, Monetary Policy Department
Central Bank of Nigeria

CONTENTS

Section One: Introduction 1

Section Two: Inflation and Inflation Targeting Concepts .. 3
2.1 A Monetary Policy Framework 3
2.2 Inflation Targeting 4
2.3 Features of Inflation Targeting. 5
2.4 The Preconditions for Inflation Targeting 5
2.4.1 Independence of the Central Bank .. 5
2.4.2 Institutional Considerations 5
2.4.3 Technical Considerations 6
2.5 Types of Inflation Targeting 6
2.6 Instruments of Inflation Targeting Framework .. 6
2.6.1 Cash Reserve Ratio (CRR) 7
2.6.2 Liquidity Ratio (LR) 7
2.6.3 Open Market Operations (OMO) 7
2.6.4 Discount Window Operations (DWO) .. 7
2.6.5 Monetary Policy Rate (MPR) 7
2.6.6 Exchange Rate as an Instrument of Monetary Policy 8
2.7 What are the Advantages of Inflation Targeting? 8

Section Three: Country Experiences of IT Framework and Lessons for Nigeria 9
3.1 The Origin of IT Framework 9
3.2 Setting Inflation Targets 9
3.3 Basic Features and Requirements of Inflation Targeting Framework 10
3.4 Successes of Inflation Targeting Framework from Other Economies 11
3.4.1 Low Inflation Rate 11
3.4.2 Reduction in Output Loss 12
3.4.3 Reduction in Target Misses 12
3.4.4 Improved Financial System Stability 12
3.5 Experiences of Sub-Sahara African Countries .. 12
3.5.1 South Africa 12
3.5.2 Ghana 13
3.6 What are the Challenges of Inflation Targeting? 13

Section Four: Assessing Nigeria's Preparedness For Inflation

Targeting 15
4.1 Should Nigeria/CBN Adopt Inflation Targeting Framework? 15
4.2 Is the CBN/Nigeria Ready to Adopt Inflation Targeting? 16

Section Five: Setting The Inflation Threshold And Communicating The Outcomes 17
5.1 Setting I Inflation Threshold/Target 17
5.2 Rationale for Communication 17
5.3 Why Should Central Bank Communicate Inflation Outcome? 18
5.4 Are There Communication Challenges Under Inflation Targeting? 18

Section Six: Conclusion 21

References 23

SECTION ONE

INTRODUCTION

1.1 Background

Globally, it has been accepted that monetary policy requires some time to exact an impact on the real economy, and thus, central banks might need to take certain policy actions based on inflation forecasts rather than its current value. This means that the central bank may need to forecast the future path of inflation which is then compared with a specified target. This central bank's function is aimed to ensure price stability, which is the primary goal of monetary policy in many jurisdictions. High rates of inflation may impact 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. An environment of sustained price stability helps economic agents to plan and form better expectations of the future path of the economy as well as make better decisions in the longer term. 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 enriched with diverse monetary policy strategies, which evolve from its monetary policy framework.

There are many frameworks out there for central banks. They include monetary targeting, interest rate targeting, exchange rate targeting, implicit nominal GDP targeting, and inflation targeting. Based on several considerations, a central bank can adopt a framework at one time and then changes it at another time, if the existing framework fails to deliver on its price stability mandate, and, indeed other statutory mandates. Over the years, it has become common for central banks to alternate from one monetary policy framework to another to achieve their set mandates. In general, the failure of monetary or exchange rate targeting to yield acceptable monetary policy outcomes led to widespread adoption of Inflation Targeting (IT) in many 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 the 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.

In general, the critical success factor in implementing the IT framework is the need to have continuous communication with the public about the plans, objectives, and decisions of monetary policy. Following from above, the IT framework is a lot more than just setting an inflation target, and hoping that the central bank would achieve it. Rather, it involves a whole gamut of activities involved in setting the numerical target (point or range), along with the processes entailed in building the Bank's integrity and the public's confidence in its monetary activities. 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.

Following the introduction, section 1.2 highlights and discusses the concepts of inflation and inflation targeting. Section

SECTION TWO

Inflation and Inflation Targeting Concepts

In this Chapter, relevant concepts of inflation and IT are identified and discussed to help our presentation and discussion of the subject of inflation targeting framework and its adoption in many jurisdictions.

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. Inflation often occurs in an economy when the economy is awash with liquidity due to a significant increase in the money supply without a corresponding increase in the production of goods and services. When the general price level rises, a unit of currency buys fewer goods and services, thereby eroding savings, discourages investment, stimulates capital flight (as domestic investors put their funds into foreign assets, precious metals, or 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 another president of the US, Ronald Reagan, described it as "cruelest tax". It is on this premise that governments in almost all economies have adopted several measures to control inflation through the adoption of conservative and sustainable fiscal and monetary policies.

2.1 A Monetary Policy Framework

A monetary policy framework is a strategy that central banks use for conducting their monetary policy towards attaining the specified policy goal. The framework for monetary policy consists of the objective(s) of policy, along with the instruments and operating procedures for achieving the stated objectives. Globally, 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 have evolved over time, so also the strategies (frameworks) used to attain them. As the names imply, those policy regimes target a monetary aggregate, exchange rate, and inflation measure, output, or interest rate, respectively, in the bid to achieve the goal of price stability.

In general, every government enunciates policies (fiscal, price, and income, as well as growth and development policy) to engender growth and development of the country. These policies aim to achieve the following objectives, among others:

(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 a balance of payments equilibrium.

To achieve the above objectives, monetary authorities use monetary policy measures and instruments to control the value, supply, and cost of money in the economy.

2.2 Inflation Targeting

Inflation targeting is a monetary policy strategy in which a central bank forecasts and makes public a target inflation rate and then, attempts to steer actual inflation towards the target through the use of key monetary policy instruments, such as central bank policy rate, OMO bills, repo and reverse repo and other monetary policy tools. It is, therefore, a framework in which the primary goal of monetary policy is to achieve price stability in accordance with an inflation target.

Of all the monetary policy frameworks, the preference for inflation targeting by many central banks in their pursuits of 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, financial innovations, advances in information technology and globalization. The attraction of inflation targeting stems from the perception that it can anchor inflationary expectations much better than other monetary policy frameworks, especially when supported by a transparent operating and policy environment.

The difference between the actual inflation and the target under an IT regime determines how much monetary policy would have to be adjusted to steer actual inflation to the monetary authority's target. Some countries have chosen inflation targets with symmetrical ranges around a midpoint, while others have identified a single target rate or an upper limit to inflation. In many IT countries, inflation targets are set in the low single digits. It must, however, be stressed that an inflation target of zero is usually not appropriate 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.

2.3 Features of Inflation Targeting

IT regime is characterized by a number of features. An important feature is that it clearly specifies the inflation objective and a clear commitment to the achievement of the objective, given that monetary policy works in part by influencing inflation expectations. IT is characterized by the following features:

- Proper definition of the type of inflation being targeted (core or headline inflation);
- Choice of the measure to be used (producer price index, consumer price index, wholesale price index or retail price index);
- Accurate specification of the inflation points or range targets;
- 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 coordination and with a commitment to achieving that target; and
- A commitment to the transparency of the monetary policy process by the monetary authority, by engaging an effective communication with the market and public about its plans and objectives of monetary policy, accompanied by the central bank's commitment to accountability in achieving the IT objective.

2.4 The Preconditions for Inflation Targeting

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

2.4.1 Independence of the Central Bank

A major requirement for the adoption of IT in any country is a considerable degree of central bank independence. This could take the form of instrument or goal independence, and a monetary policy environment unconstrained by fiscal dominance. This means that the public sector borrowing from the central bank should be low or non-existent, while government should have a broad revenue base to support its spending without a recurring recourse to the monetary authority for short- or long-term funding.

2.4.2 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 over time. The majority of IT central banks usually adopt a single mandate at a time. Where there are multiple policy objectives, such as high employment, exchange rate stability, and output growth, other objectives must be subordinated to the price stability mandate.

2.4.3 Technical Considerations

The major key technical considerations are the availability of data/information and appropriate sophisticated models for inflation forecasting to provide the monetary authorities with the right signals about the time-path of future inflation to successfully achieve the target and guarantee sustained macroeconomic stability.

2.5 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).

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

Eclectic Inflation Targeting (EIT): EIT countries offer sufficient credibility to maintain low and stable inflation without full transparency and accountability. Their impressive record of low and stable inflation coupled with a high degree of financial stability is their major motivation 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.

Inflation Targeting Lite (ITL): ITL countries announce a broad inflation objective, but owing to relatively low credibility, are not able to maintain inflation as their primary policy objective. Their relatively low credibility reflects their 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.

2.6 Instruments of Inflation Targeting Framework

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, monetary policy rate, reserve requirements, open market operations, discount window operations, and the use of exchange rate to attain the policy goal. These are discussed as follows:

2.6.1 Cash Reserve Ratio (CRR)

CRR is a specific ratio of bank's deposit that is kept as reserve with the central bank and does not earn interest. If the desire is to pursue a tight monetary stance, CRR is raised 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.

2.6.2 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 easily convertible into cash 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.

2.6.3 Open Market Operations (OMO)

OMO is a major instrument that involves the injection or withdrawal of funds from the banking system to achieve monetary policy objectives. OMO targets the free reserves of the commercial banks by either selling bills to banks to reduce their free reserves or buying bills from them to increase their free reserves. When central banks sell bills to banks, they debit the current accounts of banks, thereby increasing their bill holdings by the volume of the bills sold. When the central banks buy 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.

2.6.4 Discount Window Operations (DWO)

Discount Window Operations are also used in the conduct of monetary policy, and provide 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. Repo transactions are used to inject liquidity while Reverse Repo withdraws liquidity from the banking system.

2.6.5 Monetary Policy Rate (MPR)

A central bank's policy rate, known as Monetary Policy Rate (MPR) in Nigeria, is an interest rate instrument used by central banks to influence short-term interest rates in the money market. The policy rate is used in the determination and management of an interest rate corridor bound on either side by the central bank's standing lending and deposit facilities, respectively.

2.6.6 Exchange Rate as an Instrument of Monetary Policy

Most central banks intervene in the foreign exchange market for liquidity management purposes to achieve its monetary policy objectives by buying and selling foreign currencies. This intervention often strengthens the achievement of the price stability objective of the central bank under an Inflation targeting and other monetary policy frameworks.

2.7 What are the Advantages of Inflation Targeting?

A major advantage of the IT framework compared with other monetary policy frameworks is the identification of a forward-looking and quantifiable inflation target upon which policy decisions are based. Since economic units often develop future expectations which influence their economic rationality, IT offers a more realistic guide to the desired path of economic developments to central bankers and economic agents. This derives from the major features of the IT framework, including the announcement of the set goals to the public, thereby eliciting a reasonable measure of commitment from monetary authority. Central bankers are aware that public knowledge about the set targets constitutes a benchmark by which the effectiveness of policy is judged.

Unlike other frameworks that depend on certain hypothetic relationships amongst economic variables, IT allows flexibility for macroeconomic variables to assume any dimension and magnitude, without distorting the fundamentals of the 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 completely negates 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 stable and effective, 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 The government itself; and

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

SECTION THREE

Country Experiences of IT Framework and Lessons for Nigeria

This chapter presents and discusses country experiences in the adoption and implementation of IT frameworks. It begins with the origin of the inflation targeting framework, followed by a discussion of some salient features and requirements of IT as currently practiced in selected advanced and developing economies. It should, however, be mentioned that African economies do not have extensive experience in the adoption and implementation of IT frameworks. Accordingly, the experiences of two countries, namely South Africa and Ghana, are presented and discussed here.

3.1 The Origin of IT Framework

In 1989, New Zealand was the first to adopt 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), the Swiss National Bank, and the 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 the late 1990s, an increasing number of emerging market and developing economies have adopted the framework, constituting the vast majority of inflation targeting countries. Chronologically, New Zealand, Canada, the United Kingdom, Finland, Sweden, Australia, and Spain were the early adopters of the IT framework in controlling and managing inflation among the advanced economies. The tilt towards IT was predicated, primarily, on the poor experience from setting intermediate monetary targets or the maintenance of a fixed exchange rate.

3.2 Setting Inflation Targets

The two major distinguishing features of the IT framework are namely (a) specification of the inflation target, and (b) establishing the institutional arrangements to achieve the targets. Target setting involves selecting an appropriate price index (e.g. consumer price index or retail price index) and defining the target in terms of either the rate of inflation or the price level. The target is usually a numerical value, defined as a point or a range. In specifying a target, it is usual to also specify some possible exemptions or escape clauses to the inflation target given specific circumstances.

In terms of the numerical inflation target for advanced countries, it is typically around 2.0 percent at an annual growth rate of the Consumer Price Index (CPI) or

core CPI. For some countries, it is in the form of a range, such as 1.0 - 3.0 percent in New Zealand; or a point target with a range in other countries, such as a 2 percent point target with a range or interval of ±1 percentage point in Canada. It may also defined as 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 extremes 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 higher than the 2.0 per cent adopted in most advanced economies. In practice, inflation targeting is not rigid but rather 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 priority is to establish credibility, stabilizing the real economy probably has less weight than when credibility has been established. Over time, as inflation targeting develops, the 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 their 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, places a premium on 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[11]" (Mishkin, 2000). "Look good" in the circumstance means that the forecast inflation approaches the target inflation rate at an acceptable pace.

3.3 Basic Features and Requirements of Inflation Targeting Framework

Experiences from countries that have adopted IT, especially the developed countries, showed that the foundations for a successful full-fledged inflation targeting are a strong fiscal position and stable macroeconomic conditions. In

---

[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

addition, 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. Also, the central bank should have in place a sound methodology for producing reliable inflation forecasts, and work to achieve transparency in the conduct of monetary policy to build accountability and credibility.

In general, the basic requirements of Inflation targeting include the following:

- To adopt inflation targeting, there is a need to have a good suite of models for producing reliable inflation forecasts 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 the forecast for at least two years, and adjudged to be reliable and efficient before the bank adopts the inflation target;
- The Central bank would have to determine which inflation measure to adopt CPI or Retail Price Index (RPI);
- Ascertain the level of inflation expectation by the economic agents and the central bank legislation on the 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.

3.4 Successes of Inflation Targeting Framework from Other Economies

The inflation-targeting framework has been popularly adopted in many advanced and emerging market economies in their monetary management. Therefore, the experiences of these economies in implementing IT frameworks have generated sufficient data and information for evaluating the effectiveness and performance of the framework. Accordingly, 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 the low inflation achieved by these countries 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, the 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, a reduction in inflation was associated with a lower than normal 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 and fluctuations 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 Experiences of Sub-Sahara African Countries

The majority of the countries that have adopted IT are developed countries and some emerging market economies. In sub-Saharan Africa, only South Africa and Ghana have embraced the framework and implemented it on a full scale. Several other African countries, including Nigeria, Botswana, Mauritius, Uganda, Angola, Zambia, Kenya, Sudan, and Tunisia have contemplated or planned to introduce the framework. However, the experiences of African countries are scanty, limited, and are not necessarily representative of the global experiences in terms of the effectiveness of the IT framework.

3.5.1 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 the government between 3.0 - 6.0 per cent per annum. As an independent institution, SARB uses its instruments (primarily the repurchase rate) to achieve the set inflation

target. 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 made, but also ensures moderation of extremes. Since the commencement of IT in the country, inflation has dropped significantly, currently below 5.0 per cent. This is a major feat that the SARB has been successful in controlling inflation to the
The given target range of 3.0 – 6.0 per cent.

3.5.2 Ghana

The Bank of Ghana (BOG) Act 612 of 2002 set the tone for IT in the country. The Act granted the BOG independence in the discharge of its monetary policy with the primary objective stated explicitly as price stability. The law had explicit provisions for government financing and it established a Monetary Policy Committee (MPC) which has 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 a year as stipulated by Law and the Committee critically examines data and technical reports of developments in all sectors of the economy. In the assessment of growth potentials, especially, in the real sector, the BOG uses the Composite Index of Economic Activity (CIEA) as a key indicator. Also, business and consumer confidence surveys are employed to gauge economic activity. A suite of models is employed in the assessment of current price conditions and forecasting inflation. Since the commencement of IT in the country, inflation has dropped from double to a single digit, and the Bank is poised to reduce it below 5.0 percent.

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.

3.6 What are the Challenges of Inflation Targeting?

Although IT framework has performed well in many economies, several issues and challenges remain; and they include, among others:

- There are no guarantees that central banks have been successful in using their discretion to appropriately design and implement monetary policy;
- The forward-looking nature of IT requires a consideration of the potential lags between changes in monetary policy and their impact on inflation developments. Central banks require access to both an effective inflation forecasting model and a suite of policy instruments to control inflation with reasonable precision. In addition, the forward-looking feature of the framework also introduces some uncertainties on their own;

- There is often a major challenge in controlling inflation when the effects of central bank's policy instruments on inflation come with a lag. In this case, forecast errors and frequent target misses become inevitable. As a result, central banks often face some difficulties in justifying the deviations from the target, thereby affecting their credibility, which is crucial to the effectiveness of an IT regime;
- The initial disinflationary outcome that results from the introduction of inflation targeting may lead to short-term output loss, if economic agents do not immediately find the policy framework credible; and
- Inflation targeting generally requires exchange rate flexibility, which may accentuate the vulnerability of the overall economy to financial instability.

SECTION FOUR

ASSESSING NIGERIA'S PREPAREDNESS FOR INFLATION TARGETING

4.1 Should Nigeria/CBN Adopt Inflation Targeting Framework?

The answer to the above question borders on whether monetary targeting is still appropriate and effective as a monetary management framework in Nigeria. It also hinges on the ongoing debate surrounding the need for the CBN to transit to an inflation-targeting framework to get a better handle on the management of monetary conditions to achieve price stability that supports sustainable economic growth. Against this backdrop, a number of reasons have been adduced, disqualifying the CBN's continuous reliance on the monetary targeting framework in the country's monetary management. Primarily, it has been advanced in some circles that the money demand function in Nigeria fluctuates widely and thus, the transmission mechanism of monetary policy has become unclear, indicating that the CBN cannot easily control monetary growth and inflation. The instability in both base money and M2 velocity has also been noted by Mordi (2008) and Uchendu (2008), as they found that both variables fluctuated widely and mostly below their average levels. Over the forty years 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 its inception, the CBN has used two frameworks for the implementation of monetary policy namely: exchange rate targeting and monetary targeting. The 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 justified 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. On the flip side, the shift to IT by several countries, especially in the advanced and emerging market economies, has been ascribed to several factors, such as the overwhelming determination to improve on inflation records, increasing difficulties in applying the other frameworks, achieving improved credibility of monetary policy, as well as enhancing greater communication with the public
in a concerted effort to contain inflationary pressures.

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

Nigeria has indicated its 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 prerequisite for sustainable economic growth and poverty reduction in Nigeria.
- The CBN has achieved in its 2007 Act, and demonstrated, its operational independence in the conduct of monetary policy in the last several years. Some of the activities and operations of the Bank which demonstrated its operational independence include the following: (a) The success of the Bank's 2005 large-scale reform of the financial system, which paved the way for a consolidation exercise of banks, as well as mergers and acquisition; (b) liberalizing and ridding the financial system of moral hazards, by prosecuting erring CEOs of some Deposit Money Banks in 2009; and (c) establishment of the Assets Management Company of Nigeria (AMCON), which helped to rid the banking system of toxic assets and stabilise the operating environment, leading to improved credibility of the financial institutions. These reforms helped to ensure adequate depth and health of the financial market, and strengthen the transmission of monetary policy as well as the Bank's interventions in various sectors of the economy.
- 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 Conferences, as well as speeches by top Management, have provided the Bank with the opportunity and mechanism for enhancing policy advocacy, transparency, and accountability.
- The Bank has been mindful of the role reliable inflation forecasts play in the effective and successful implementation of an IT regime. Consequently, the Bank built a world-class capacity in inflation forecasting and has developed and applied a suite of structural and non-structural models for forecasting inflation. Over time, inflation forecasts have become sufficiently reliable, preparatory for the long-anticipated transition to inflation targeting.
- These developments are indications of the Bank's preparedness and commitment to satisfy the pre-conditions for a successful transition to an IT framework. What is, however, required is the political will to support a full-scale transition to inflation targeting.

SECTION FIVE

SETTING THE INFLATION THRESHOLD AND COMMUNICATING THE OUTCOMES

In this section, some key activities in the implementation of an IT framework are discussed next. They include setting inflation target or threshold and the communication of monetary policy decisions and actions to all stakeholders in the expectation of ensuring transparency and gaining credibility with diverse stakeholders.

5.1 Setting I Inflation Threshold/Target

In general, inflation targeting process 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 or its range to be achieved during a specified time horizon. Accordingly, the central bank or the government can publicly state that the inflation threshold is set at a figure of say 8.0 per cent during the next 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 relating to its strategy and decisions. Premised on the above, an IT framework consists of two parts, namely a policy framework of constrained discretion, and a communication strategy that focuses on anchoring expectations by engaging a public explanation of the policy framework and its implementation strategies and outcomes. These two elements, put together, help to promote both price stability and a well-anchored inflation expectation. Consequently, a well-conceived and executed inflation targeting can achieve good results, including robust growth, rising employment as well as low and stable inflation.

5.2 Rationale for Communication

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

Four basic conditions are necessary to ensure effectiveness in central bank communication, especially when dealing with inflation targeting outcomes. The

first condition is not to be afraid of speaking about the outcomes. In other words, there is a need for clarity and accurate reportage.

Second, is the need to defend the policy outcome. Irrespective of the policy outcome, there is a 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 a 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 to strengthen the feedback loop and enhance quality communication of policy decisions and outcomes.

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“[22] 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 policymaking; 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 the same message or single voice with the same message
- Two broad types of the audience must be reached on regular basis. These include financial market participants/commentators and the public/politicians.

In general, the tools for communication under the IT framework include an 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 the practice of IT framework are:

- How much to say about future policy, for example, policy rate expectations;

---

[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

- The need to make people aware of the limits of what monetary policy can achieve. This becomes particularly important if the conditions become less favorable to change the fundamentals of the economy;
- There is also the need to broaden the reach of communication - monetary authorities need to take a bolder approach in reaching a wider audience. This has been a challenge, particularly where print media are urban-based and adequate power supply remains elusive in developing countries, especially in their 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 organizing MPC meetings and publications, while the National Bureau of Statistics should continue to compute and publish actual inflation figures as statutorily mandated;
- The need to design and apply a suite of appropriate models for forecasting inflation and monitoring 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, involving an agreement between monetary and fiscal authorities on the appropriate inflation target or its range.

SECTION SIX

Conclusion

High and unstable rates of inflation can negatively impact macroeconomic outcomes, as they prevent rational decisions on the part of savers and investors. An environment of sustained price stability helps economic agents to plan and form a better expectation of the future path of the economy, and to make better decisions in the longer term. 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.

The monetary authority is vested with the primary responsibility of ensuring price stability. In doing so, the monetary authority adopts one of many frameworks out there. The major frameworks include monetary targeting, interest rate targeting, exchange rate targeting, implicit nominal GDP targeting and inflation targeting. Influenced by several considerations, a central bank may adopt a framework at one time and then changes it at another time if the existing framework fails to deliver on its price stability mandate. In general, the failure of monetary or exchange rate targeting to yield acceptable monetary policy outcomes led to widespread migration to Inflation Targeting in many jurisdictions.

Inflation targeting is a monetary policy strategy in which a central bank forecasts and publishes a target inflation rate and then, attempts to steer actual inflation towards the target through the use of key monetary policy instruments, such as central bank policy rate, OMO bills, repo and reverse repo and other monetary policy tools. IT regime is characterized by a number of features. A major feature is that it clearly specifies the inflation objective and a clear commitment to the achievement of the objective. The CBN currently operates monetary targeting framework in its monetary management. However, there has been a series of consensus for a transition to inflation targeting, following several difficulties in achieving price stability and other macroeconomic objectives with the existing monetary targeting framework. Accordingly, the Bank strives to fulfill the main pre-conditions for that transition, and has achieved the following:

- A statutory operational independence in the conduct of monetary policy in the last several years;
- 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 Conferences; and

- The Bank has built a world-class capacity in reliable inflation forecasting, a key requirement for the long-anticipated transition to inflation targeting. What is, however, required is the political will to support a full-scale transition to inflation targeting in Nigeria.

REFERENCE

Anderson L.C. and Jordan J.L., (1968): "*Monetary and Fiscal Action; A test of their Relative Importance in Economic stabilization*, Economic Policy Review (Fed Reserve Bank of St Louis). Pp 11-24).

Ambler, Steve (2009): "*Price-Level Targeting and Stabilization Policy*: A Review," Bank of Canada Review Spring 2009, 19—29.

Barro, R.J., and Gordon, D.B., (1983): "A Positive Theory of Monetary Policy in a Natural Rate Model"., Journal of Political Economy**,** 91 (4) pp. 589-610.

Bernanke, B.S., (2004): "Inflation Target" Panel Discussion, in Fed Reserve Bank of St. Louis, Review, Vol. 86 (4), pp. 165 -168.

Elgie, Robert (2002): *The politics of the European Central Bank: principal-agent theory and the democratic deficit.* Journal of European Public Policy, 9 (2). pp. 186-200. ISSN 1350-1763

Friedman, M., (1968): "*The Role of Monetary Policy*" American Economic Review, Vol. (VIII(1), March pp.1-17.

Friedman, B.M., (1977): "*The Inefficiency of short-run Monetary Targets for Monetary Policy*". Brookings Papers on Economic Activity, 2, 293-346.

Kuttner, K. N., (2004): "*The Role of Policy Rules in Inflation Targeting*", Federal Reserve Bank of St Louis Review, Vol. 86 (4), pp. 89-11.

Mayer, L. H., (2004): "*Practical Problems and Obstacles to Inflation Targeting*", Fed. Res bank of St. Louis Review, Vol. 86 (4), pp.151-160

Mishkin, F.S., (1997): "*Inflation Targeting; A New Framework for Monetary Policy?*", Journal of Economic Perspectives, Vol 11(2), pp. 97-116.

Mishkin, F.S. and Posen, A.S., (1997): "*Inflation Targeting: Lesson from four countries*", Economic Policy Review, Fed. Reserve Bank of New York, August, Vol. 3 (3), pp. 9-10

Svenson, L.E.O., (2003): "*What is Wrong with Taylor Rules? Using Judgment in Monetary Policy through Targeting Rules*", Journal of Economic Literature, Vol. 41(2), pp. 426-71.

Thornton, D.L., (1993): "*Targeting M2, the Issue of Monetary Control*", Economic Policy Review, (Fed Reserve Bank of St Louis), vol, 75 (4) pp. 21-36.

Ajayi, I., (2003): The Challenges of Monetary Policy in a Developing Economy, paper presented at the 3rd Central Bank of Nigeria Annual Monetary Policy Conference, Abuja, December 11-12.

Hammond, G., (2002a): Designing an Inflation Target, Paper presented at Workshop on Inflation Targeting and Monetary Operations, Bank of Ghana, Accra, September, 11-12.

Hammond, G., (2002b): Choice of Monetary Policy Framework, Paper presented at Workshop on Inflation Targeting and Monetary Operations, Bank of Ghana, September, 11-12.

Mbutor, M.O., (2006): Migration to Inflation Targeting in Nigeria: Learning from the Experience of Brazil, a Discussion paper, Research and Statistics Department, Central Bank of Nigeria, July, 2006.

Olekah, J.K.A., (2000): The Framework of Monetary Analysis: Targets and Instruments, paper presented at the Monetary Policy Forum, CBN, Abuja, November, 23.

Uchendu, O. A. (2000): "*Inflation Targeting: A Monetary Policy Management Framework for the Attainment of Price Stability in Nigeria*" CBN Economic and Financial Review (EFR).