

Inflation Targeting Framework for Monetary Policy in Nigeria: Issues, Problems And Prospects.

GODWIN E. BASSEY (Ph. D.)

DEPARTMENT OF ECONOMICS, UNIVERSITY OF UYO, UYO, AKWA IBOM STATE, NIGERIA.

godwinbasse07@yahoo.com

ETTAH B. ESSIEN (Ph. D.)

DEPARTMENT OF ECONOMICS, UNIVERSITY OF UYO, UYO, AKWA IBOM STATE, NIGERIA.

ABSTRACT

Over the years, Nigeria has adopted different monetary policy regimes with limited or no success. These ranged from exchange rate targeting, direct monetary controls to monetary targeting. The overall objectives of monetary policy have been the maintenance of macroeconomic stability and non-inflationary growth. In line with the global trend, Nigeria navigated towards adoption of Inflation Targeting monetary framework. But recent policy indication shows that the Central Bank of Nigeria (CBN) may have soft-pedaled in the pursuit of full-fledged Inflation Targeting for the country. This paper attempted to critically analyze the basic issues, problems and prospects germane to the adoption of Inflation Targeting as a monetary policy framework for Nigeria. To do this, the paper examined the basic features and performances of inflation targeting countries globally, adduced that Inflation Targeting is not “a cure-all medicine” and that it may not significantly reduce the real costs of disinflation in Nigeria in terms of a decline in output and an increase in unemployment. For Nigeria, the extent of the success of Inflation Targeting, if and when adopted, will crucially depend on the availability of executive capacity, quality and timely data and the political will and commitment to the success of the programme on the part of monetary authorities.

KEY WORDS: Inflation Targeting, Policy consistency, monetary authorities

INTRODUCTION

In recent years, Inflation Targeting (IT henceforth) has emerged as a dominant monetary policy strategy for many developed and developing countries. Account by Epstein and Yeldan (2008) showed that the IT monetary policy framework was adopted by twenty-four countries as at 2006. Between 2006 and 2009 four additional countries joined the league of inflation targeters bringing the total number to twenty-eight (Jahan, 2012). The only countries that have abandoned IT after they started it, according to Jahan (2012), are Finland, Spain, and the Slovak Republic, following the adoption of the euro as their domestic currency. Nigeria was said to have indicated her interest to adopt the IT framework by the year 2007 (CBN, 2007). However, to date (2014) no such official declaration has been made public yet. Instead, indication is that the Central Bank Nigeria (CBN) may have soft-pedaled in the pursuit of full-fledged IT for the country (Sanusi, 2010). The growing popularity of the IT framework stems from the realization that inflation constitutes a major obstacle to economic growth and efficient resource allocation in the economy. It is argued that inflation distorts prices, diverts capital to rent-seeking activities, compounds social and political problems, frustrates economic planning, encourages capital flight, discourages savings, reduces investment, retards economic growth and development, serves as tax on the poor and ultimately, reduces the living conditions of the people (Debelle, 1999).

In order to avert these ills, monetary authorities all over the world have made conscious efforts to achieve low and stable inflation rates, using one form of monetary policy framework or the other. Among the various monetary policy frameworks so far in use include exchange rate targeting, interest rate targeting, monetary targeting and recently the inflation targeting. Under IT framework, price stability is explicitly stated as the overriding objective of monetary policy (Oleka, 2006). Nigeria at various times, adopted exchange rate targeting under the pegged exchange rate regime, interest rate targeting, and now monetary targeting framework with limited successes. According to Uchendu (2002), Nigeria's monetary policy objectives have evolved from the era of multiple objectives at inception to the current implicit focus on price stability.

Against the above background, this paper seeks to examine the basic issues, problems and prospects for the adoption of IT as monetary policy framework for Nigeria. The rest of the paper is organized as follows; section 2, which follows the introduction, discusses the conceptual framework for IT. In section 3, the historical background and country experiences are reviewed. The basic issues and problems of IT are discussed in section 4. An attempt is made in section 5 to assess the prospects of the IT framework in Nigeria while the last section makes some recommendations and concludes the paper.

2. CONCEPTUAL FRAMEWORK

Meaning of Inflation Targeting

There seems to be at present no general agreement on the definition of IT. Olekah (2006) noted that being a concept that is still evolving, the lack of universal definition should pose no surprise or constitute any special worry. However, at the operational level, some kind of generic characterizations could be found in the literature. One of such characterizations is that given by Bernake, Lauback, Mishkin and Posen (1999). According to Bernake et al (1999), IT is a framework for monetary policy, characterized by public announcement of official quantitative targets (or Target ranges) for the inflation rate over one or more time periods, and by explicit acknowledgement that low and stable inflation is the primary long run goal of monetary policy. Other features of IT as highlighted by Bernake et al (ibid) include a vigorous effort to communicate with the public about the plans and objectives of the monetary authorities and measures that strengthen the central bank's accountability for attaining these objectives. Also, Aliyu and Englama (2009) described IT as a monetary policy framework in which central banks accept and announce certain targets of inflation, over a given period of time, as a measure of policy anchor and are accountable for deviations of actual from set targets.

In another attempts, Eichengreen (2001) and Mishkin (2007) defined IT as a monetary policy strategy with the following characterizations:

- (i) An institutional commitment to price stability as the primary goal of monetary policy;
- (ii) Mechanisms rendering the central bank accountable for attaining monetary policy goals;
- (iii) Public announcement of medium term numerical targets for inflation;
- (iv) An information inclusive approach in which many variables (not just monetary aggregates) are used in making decisions about monetary policy; and
- (v) Increased transparency of monetary policy strategy through communication with the public and market about the plans and objectives of monetary policy.

From the above characterization, IT may be described as a monetary policy framework that makes explicit commitment to maintenance of price stability as the overriding objective of monetary policy, sets the numerical target for inflation over a specified time horizon and makes effective communication of same to the public, including explanation for deviation from targets, if and when they occur, with a view to improving the transparency and credibility of monetary policy and the accountability of monetary authorities.

There are three main forms of IT that have been identified in the literature. They are:

- (i) Full- fledged IT (FFIT): This occurs when a country is ready to adopt IT as its single nominal anchor upon which macroeconomic stability would be achieved. It is suitable for countries with a robust or sound financial environment, and a central bank, which is transparent, accountable and highly committed to the attainment of the goals of IT.
- (ii) Eclectic IT (EIT): This occurs when a country pursues IT along with other monetary policy objectives in a stable financial environment which, however, is less accountable and transparent.
- (iii) Inflation Targeting Lite (ITL): This is a low profile form of IT pursued by countries, largely due to lack of strong or credible macroeconomic environment. ITL countries float their exchange rate and announce an inflation target, but are not able to maintain the inflation target as the foremost policy objective (Aliyu and Englama, 2009).

The operational procedure of IT framework requires that the central bank forecasts the future path of inflation and compares it with the target inflation rate (the rate the government believes is appropriate for the economy). The difference between the forecast and the target inflation rates determines how much monetary policy has to be adjusted. More often than not, IT countries set their inflation targets in the low single digits but not at zero since that would not allow real interest rates to fall sufficiently to stimulate overall demand when a central bank is trying to boost the economy (Jahan, 2012).

Arguments for and against IT

Argument for IT

Both theoretical and empirical arguments have been adduced to justify the increasing popularity and support which IT has enjoyed over the past two decades. First, it is argued that Economists and policy makers have become less confident in using monetary aggregates to effectively moderate short run fluctuations in the economy. This is based on the monetarist's argument that an increase in money supply does not affect the real sector of the economy in the long run, although it may have temporary effects in the short run. Even then, the mechanism through which the effects of changes in money supply manifest themselves and the time when they manifest are not well known. In contrast, it is agreed that inflation rate is the only macroeconomic variable that maintains a strong and direct relationship with monetary policy. Therefore, when monetary policy makers target

a low rate of inflation as their long run goal, they are simply accepting the reality of what monetary policy can or cannot do (Olekah, 2006).

Second, empirical evidences have tended to support a negative correlation between economic growth and inflation (Barro, 1995; Bruno and Easterly, 1998; Ghosh and Phillips, 1998; Krueger, 2005; Bassegy and Onwioduokit, 2011). This negative relationship suggests that a policy that seeks to reduce inflation is growth inducing. Third, it is further argued that IT is readily understood by the public and therefore very transparent. Monetary targeting is less likely to be understood by the public and may not adequately reflect the stance of monetary policy. Also, by committing itself to price stability, monetary authority is held accountable for success of the policy.

Fourth, according to Heintz and Ndikumana (2010) it is frequently argued that a formal IT allows inflation to be controlled at lower cost than other approaches to monetary policy that focus on reducing inflation. In other words, IT is said to reduce the ‘sacrifice ratio’ – the amount of output or employment which must be forgone to reduce inflation by a certain amount.

A fifth major advantage of inflation targeting as noted by Jahan (2012) is that it combines elements of both “rules” and “discretion” in monetary policy. This “constrained discretion” framework combines two distinct elements: a precise numerical target for inflation in the medium term and a response to economic shocks in the short term. Thus, rather than focusing on achieving the target at all times, the approach emphasizes achieving the target over the medium term—typically over a two- to three-year horizon. This allows policy to address other objectives—such as smoothing output—over the short term. Thus, IT provides a rule-like framework within which the central bank has the discretion to react to shocks. Because IT focuses on medium-term, policy makers need not feel compelled to meet targets on a year – to – year basis.

Lastly, IT is said to minimize the time inconsistency problem in monetary policy management. Under IT regime, policy makers resist the incentive to inflate the economy because of their commitment to a stable and low inflation environment. It also encourages effective and regular communication of policy direction and intentions to the public, thereby enhancing transparency and discipline in policy formulation and implementation (Bernanke et al, 1999).

Arguments against IT

In spite of its many benefits, the IT framework is not without some limitations. Some of these limitations are highlighted in the works of Epstein and Yeldan (2006 and 2008), Kadioglu, Ozdemir and Yilmaz (2000) and Bernanke, et al (1999). First, it is argued that the general notion that the top priority of central banks should be to keep inflation as low as possible is neither optimal nor desirable. According to Epstein and Yeldan (2006), the notion is based on the mistaken belief that inflation of any magnitude has a negative impact on output and that economies perform best and generate high levels of economic growth and employment under lower rates of inflation. On the contrary, Epstein and Yeldan (ibid) argued that experiences have shown that moderate rates of inflation have very low or no cost and that IT countries have not performed better than non-IT countries in terms of employment generation and economic growth. Succinctly, Epstein and Yeldan (2006 :3) argued that:

After several decades of experience with this inflation focused-market based approach, the policy record has been rather disappointing for many countries. In a number of countries, inflation has come down, to be sure, but it is questionable to what extent the drop in inflation is due to changes in domestic monetary policy, rather than the overall global fall in inflation. Moreover, even if domestic monetary policy has reduced inflation, the hoped for gains in employment have, generally, not materialized; and, for many countries following this orthodox approach, economic growth has not significantly increased.

In line with this reasoning, Bernanke, et al. (1999) argued that IT does not reduce the real cost of disinflation while Pollin and Zhu (2006) submitted that a higher inflation is associated with moderate gains in GDP growth rate up to 15-18 percent inflation threshold.

Second, the much vaunted accountability and credibility properties of IT is said to be doubtful. Bernanke, et al. (1999) returned “no credibility bonus” while Epstein and Yeldan (2008) argued that the supposedly “independence” of the central bank means that they would become less accountable to their governments and more accountable to financial elites and international organizations such as IMF. The accountability and credibility arguments are further weakened by the fact that inflation is difficult to control and the policy instruments show their impacts on inflation after a long and variable lag.

It is further argued that IT may not prevent fiscal dominance of the government. The existence of fiscal dominance particularly where large deficits are financed through signorage as is the case in many LDCs tends to limit the independence of the central bank and undermine the effectiveness of IT framework. More so, there is the possibility of conflict of interest between the central bank and politicians which may weaken the cohesiveness of IT framework. Still on the weakness of IT, Pui (2003) as cited in Aliyu and Englama (2009) cautioned that IT in its pure sense (where output and economic growth are given no weights) is not likely to maximize social welfare since the contraction or expansion of the economy does not matter so long as the inflation target is met.

Finally, the IT framework is criticized as being too rigid by insisting on price stability as the overriding objective of monetary policy. This limits the ability of the central bank to respond to unforeseen circumstances. An extension of this argument is that by focusing on price stability, the central bank ignores the important developmental role it can play in the economy. It is argued that in particular, employment creation, poverty reduction and more rapid development should be added to price stabilization role of the central bank. (Epstein and Yeldan, 2006)

3. HISTORICAL BACKGROUND AND COUNTRY EXPERIENCES

Inflation targeting as a monetary policy framework has a recent origin. The framework started in 1990 with New Zealand and Chile being the first two countries to adopt it (Oleka 2006). Before that time, the dominant framework were exchange rate targeting, adopted by many countries after the abandonment of the Breton Wood system in 1972 and the monetary targeting framework. These two countries (New Zealand and Chile) were followed in quick successions by UK and Canada in 1991, and Sweden, Finland and Australia in 1993.

Within Africa, South Africa became the first country to join the league of IT countries in 2000. In West African sub-region, Ghana adopted implicit inflation targeting in 2002 and formerly joined the league of inflation targeters in 2007. On the whole, the rate at which both industrialized and non-industrialized countries embraced IT framework has been overwhelming. Epstein and Yeldan (2008) reported that of the 88 non-industrialized countries surveyed by IMF, more than half had expressed the desire to adopt explicit or implicit quantitative inflation targets. The full list of IT countries and other candidate countries is presented in the Table 1 below as captured in Epstein and Yeldan (2008) and modified in Jahan.(2012).

Table 1: List of IT Countries

INDUSTRIAL COUNTRIES	DEVELOPING COUNTRIES	CANDIDATE COUNTRIES
New Zealand, Canada, United Kingdom, Sweden, Iceland, Norway, Australia.	Israel, Czech Rep, Poland, Brazil, Chile, Colombia, South Africa, Thailand, Korea Mexico, Hungary, Peru, Philippines, Albania, Slovak Rep., Indonesia, Romania, Turkey, Serbia, Armenia and Ghana.	<p>Near term 1-2 years. Costa Rica, Egypt and Ukraine.</p> <p>Middle term 3-5 years. Botswana, Dominican Rep, Guatemala, Mauritius, Uganda, Angola, Azerbaijan Georgia, Moldova, Sri Lanka, Vietnam and Zambia.</p> <p>Long term 5 years and above. Belarus, China, Kenya, Kyrgyz Rep., Bolivia, Honduras, Nigeria, Papua, New Guinea, Sudan, Tunisia, Uruguay and Venezuela.</p>

SOURCE: Epstein, G. and Yeldan, E. (2008). P. 25, (ii) Jahan, S. (2012)

The main features of IT as practiced by some of the full fledged IT countries are presented in Table 2. The Table indicates that about twenty countries targeted inflation rate of below 5 percent while four countries set the lower band of their inflation target above 5 percent. Only two countries, Israel and Ghana, set the upper band of their inflation target up to 10 percent. In terms of the target range, almost all the countries, with the exception of Israel and Ghana, maintained a target range of below 3 percent. It is important to note that while majority of the countries prefer to use a target range, others adopt point target instead. In the majority of the countries, the inflation targets are set by the central bank while in a few others, they are set by the government. Only two countries have their inflation targets set jointly by the central bank and the government. Of the twenty-three countries examined, with data on inflation type {see column (5)}, ten of them targeted core inflation while thirteen used headline inflation or consumer price index (CPI). With the exception of United Kingdom, which set its inflation target horizon at four years to correspond with its Parliamentary tenure, all other countries surveyed maintained target horizon of not more than three years.

Table 2: Main Features of IT Countries

S/N	COUNTRY (1)	ADOPTION DATE (2)	INFLATION TARGET % (3)	TARGET SETTER (4)	INFATION TYPE (5)	TARGET HORIZON (6)
1.	New Zealand	1990	0-3	Jointly	Core	Yearly
2.	Canada	1991	1-3	Jointly	CPI	1-3years
3	Israel	1991	7-10	Govt.	CPI	Yearly
4.	United Kingdom	1992	2.5	Govt.	Core	Parliamentary Tenure (4yrs)
5.	Sweden	1993	1-3	CB	CPI	3 years
6.	Finland	1993	2	CB	Core	N/A
7.	Spain	1994	Below 2	CB	CPI	2 years
8.	Australia	1994	2-3	CB	Core	Medium term
9.	Czech. Rep.	1997	1-3	CB	CPI	N/A
10.	Brazil	1997	2-4	MPC	Core	N/A
11.	Poland	1998	2.0-4	CB	CPI	N/A
12.	Chile	1999	5-7	CB	Core	N/A
13.	Colombia	1999	5-6	CB	CPI	N/A
14.	South Africa	2000	3-4	Govt.	Core	N/A
15.	Korea	2000	2.5	CB	Core	N/A
16.	Thailand	2000	2-3	CB	Core	N/A
17.	Switzerland	2000	Below 2	Govt.	CPI	N/A
18.	Hungary	2001	5-7	CB	Core	N/A
19.	Iceland	2001	2.5	CB	CPI	N/A
20.	Mexico	2001	2-4	CB	CPI	N/A
21.	Norway	2001	2.5	CB	CPI	N/A
22.	Peru	2002	2.5	CB	Core	N/A
23.	The Philippines	2002	5-6	CB	CPI	N/A
24.	Slovak rep.	2005	2.5-4.5	CB	N/A	N/A
25.	Indonesia	2005	5.5	N/A	N/A	N/A
26.	Romania	2005	7.5-8.5	N/A	N/A	N/A
27.	Turkey	2006	3-7	N/A	N/A	N/A
28.	Armenia	2006	3-6	N/A	N/A	N/A
29.	Serbia	2006	4-8	N/A	N/A	N/A
30.	Ghana	2007	6.5-10.5	N/A	N/A	N/A
31.	Albania	2009	2-4	N/A	N/A	N/A

Source: (i) Bernanke et al. (1999), pp. 86-250. (ii) Epstein and Yeldan (2008.) p. 25.
 (iii) Olekah (2006), pp. 45-73. (iv) Jahan, S. (2012)

The overall performance of macro economic indicators of IT countries have been found to be mixed. Table 3, adopted from Epstein and Yeldan (2008) provides information on selected macroeconomic aggregates and prices taken as annual five years average before and after the adoption of IT. From the Table, it is seen that one-third of countries surveyed reported the decline in their growth rate after the adoption of IT, while the others showed no major shift on their growth rates. The Table further shows a significant increase in the rate of unemployment in the post IT era.

With respect to inflation rate performance, Table 3 shows a significant reduction in the post IT era in almost all the countries except Indonesia and Switzerland. Looking at the real exchange rate movement, the Table shows a general tendency towards appreciated currencies on the aftermath of the adoption of IT. Epstein and Yeldan (2008) attributed this appreciation to increased expansion of foreign capital inflows due to global financial glut.

TABLE 3: Performance of Selected Macroeconomic Indicators in the IT Countries (Annual Average of 5 years to Adoption of IT and after Adoption)

COUNTRIES	Growth Rate		Unemployment Rate		Inflation Rate		Exchange Rate	
	Before	After	Before	After	Before	After	Before	After
New Zealand	2.7	3.0	4.2	6.9	11.6	2.2	-7.6	-0.6
Canada	2.9	2.8	8.4	8.7	4.5	2.1	-7.5	-7.1
UK	2.2	2.7	7.4	5.2	6.4	2.6	-2.4	-2.2
Sweden	0.8	2.7	2.8	6.1	6.9	1.5	-8.5	-1.2
Australia	2.2	3.9	8.6	7.3	4.2	2.5	-6.9	-1.1
Israel	5.8	3.1	8.5	9.4	11.3	3.1	-4.2	0.9
Czech Rep.	4.5	3.2	4.0	8.9	9.1	3.1	-6.6	-6.2
Poland	7.9	3.7	14.3	16.7	24.1	4.7	-4.5	-4.8
Brazil	3.2	2.3	7.0	9.8	819.2	7.9	-48.0	5.5
Colombia	3.3	2.3	11.1	15.8	20.4	7.5	-9.5	0.5
Mexico	1.7	4.8	2.7	1.9	24.5	7.2	28	-4.6
South Africa	2.6	3.8	Na	27.7	7.3	5.1	4.3	-2.5
Switzerland	1.4	1.7	4.1	3.1	0.8	1.0	1.6	-3.7
Thailand	1.5	1.7	1.9	2.4	5.1	2.2	4.5	-1.0
Korea	4.6	4.5	4.4	3.7	4.0	3.3	6.0	-5.0
Hungary	4.2	4.2	8.0	6.1	15.2	5.9	2.	-12.4
Peru	2.0	5.2	7.8	10.2	5.0	1.9	-1.6	1.4
Philippines	3.1	5.1	10.2	11.5	6.3	5.0	8.5	-3.0
Indonesia	4.6	5.6	6.5	10.3	8.0	15.5	-6.2	-1.9
Turkey	4.5	7.8	9.9	10.4	28.3	10.5	-6.3	-1.2

Source: Epstein and Yeldan (2008) Pp. 26-27

In Nigeria, various monetary policy regimes have been adopted over the years, including exchange rates targeting and monetary targeting (MT) (Uchendu 2006). The last mentioned MT, has been in practice since 1993 in Nigeria. Monetary targeting entails setting intermediate targets (M_2) and operating target [interest rates, exchange rates and minimum rediscount rate (MMR) and Open Market Operations (OMO)] in tandem with the assumed target for GDP growth, inflation rate and balance of payments (CBN, 2007). This monetary policy framework is based on the assumption that there is a stable relationship between monetary variables (such as money and domestic credits) and real sector variables such as output and prices. As noted by Agba (2006), the effectiveness of monetary targeting depends on the strength of relationship between the target variable (M_2) and the policy instruments. It also depends on the stability of the demand for money function (Mbutor, 2006). However, the volatile nature of our oil driven economy, coupled with a tradition of policy inconsistencies and absence of policy independence conspired to frustrate the effectiveness of these policies in Nigeria. Hence, the search for an alternative monetary policy framework began with the granting of instrument autonomy to the Central Bank of Nigeria (CBN) in 1998.

In recognition of lags in monetary policy, the CBN in 2002 shifted the focus of monetary policy to medium term. Under this framework, monetary growth targets that are consistent with inflation and real output growth targets were set over a two year period. In addition, the Monetary Policy Rate (MPR) which became the anchor rate was introduced to replace the Minimum Rediscount Rate (MMR). Furthermore, the bank consolidation programme introduced in 2005 was designed to strengthen and deepen the financial sector. In 2007 a new CBN Act, which gave the Bank broader independence, was enacted to include the provision of transparent and credible framework to lock in inflationary expectation through the adoption of inflation target as the nominal anchor for monetary policy (CBN 2007). Within the same year the Fiscal Responsibility Act, was signed which sought to reduce the size of banking system's financing of public sector deficits while the Monetary Policy

Committee (MPC) was set up, under the chairmanship of the Governor of CBN formulate monetary and credit policy for the country, among other things. Uchendu (2006) further noted that the launching of the financial sector strategy (FSS) 2020 added vigour towards the implementation of inflation targeting framework in Nigeria, since the policy hinges on strategic objective of achieving low and single digit.

In what looks like a policy shift however, the CBN in 2010 announced that it has soft-pedaled on the march toward adopting a full-fledged IT for Nigeria. The CBN Governor was reported to have said that Nigeria will not pursue the achievement of single digit inflation at the expense of economic growth and poverty alleviations (Mazen and Kay, 2012). In the words of the CBN Governor:

I have always held the view that a central bank governor in an emerging economy like Nigeria must balance the desire for low inflation with the critical need for economic growth and poverty alleviation. It is for this reason that I soft-pedaled on the CBN's earlier effort to fast-track to an explicit inflation-targeting regime. The evidence for inflation targeting in poor countries remains dubious and francophone West Africa is a case in point. As we stand today, countries like Botswana have abandoned the policy. New Zealand, Brazil and Argentina are having second thoughts about the wisdom of pursuing a very low inflation target. Even IMF officials have recently advised the central banks in advanced countries, including the ECB to relax their target. There is a raging debate in South Africa over the SARB's insistence on maintaining an inflation target of 3-6% at a time of very weak GDP growth. So while the Central Bank will continue to maintain price stability, it will be an active player in the economic development space and encourage policies and reforms that lead to the growth of the real economy, including attracting foreign investment into critical sectors ((Sanusi, 2012: p 19).

This policy rethink on the adoption of IT framework raises serious concern as to what viable alternative policy framework is left at the kettles of CBN. The concern arises from the fact that the country had earlier experimented on the exchange rate targeting and now, on monetary targeting with limited or no success. Because a policy reversal at this point without a viable alternative may turn out to be very costly for the country, it is pertinent to take a hard look at the issues and problems of implementation of IT for Nigeria.

4. ISSUES AND PROBLEMS OF INFLATION TARGETING FOR NIGERIA

The analysis so far on the experiences of IT countries suggests that IT framework is not a "cure all medicine". A good deal depends on the political will of authorities to do the right things at the right time. It also depends on choice of appropriate target, effective means of communication with the public, ensuring central bank independence and accountability, etc. Nigeria has un-enviable record of formulating good policies but which have failed because of poor implementation. In order to avoid a repeat of past policy implementation errors, the following issues and problems need to be properly addressed and discussed.

Appropriate Timing for Inflation Targeting

The first pertinent issue to consider is what should be the appropriate time to introduce IT. A common sense would dictate that IT should commence once inflation becomes a serious threat to an economy. However, the experiences from IT countries have shown that IT is best introduced after a successful period of disinflation. Bernanke et al. (2008) have argued that the practice is borne out of political expediency, namely the need to meet the initial inflation target in order to gain credibility for the new regime. The choice is also advised by the need to "lock in" earlier disinflationary gains, particularly in the face of one time inflationary shock.

A cursory look at Table 4 reveals that although the Central Bank of Nigeria (CBN) has in the past fifteen years put a deserving emphasis on price stability as the major goal of monetary policy, there seemed to be no concrete evidence of any serious attempt at disinflation. Both the money supply (M_2) and domestic credit continued to show expansionary trend, reaching their peaks in 2008 at 56.1 and 88.6 respectively against the background of rising costs of funds and depreciating Naira exchange rate. As a consequence, the rate of inflation rose to double digits except in two short periods, 1999 and 2000 and 2006 and 2007 respectively. In those two periods, the monetary policy objective of achieving a single digit inflation rate was sustained. From 2009 however, both M_2 and credit to private sector assumed a declining trend, thus forcing down the trend in the rate of inflation. Unless the downward trend is sustained over the next 2 to 3 years, it would be unadvisable to introduce IT for fear of losing credibility due to serious target misses.

Table 4: Monetary Policy Indicators and Inflation Rate in Nigeria.

Year	Money Stock Growth Rate (M2)	Credit To Domestic Economy (Growth Rate)	Minimum Rediscount Rate (MRR)	Inflation Rate	Exchange Rate
1997	16.0	-1.4	13.5	8.5	21
1998	22.3	42.0	14.3	10.0	21.8
1999	33.1	21.7	18.0	6.6	92.6
2000	48.1	-25.3	13.5	6.9	102.1
2001	27.0	79.9	14.3	18.9	111.9
2002	21.6	56.6	19.0	12.9	121.0
2003	24.1	35.7	15.8	14.0	129.4
2004	14.0	12.0	15.0	15.0	133.5
2005	16.0	14.5	13.0	17.9	131.7
2006	53.4	7.7	13.0	8.2	128.1
2007	35.0	60.1	8.7	6.6	125.1
2008	56.1	88.6	9.8	15.1	117.7
2009	17.5	31.5	7.4	13.9	147.2
2010	17.3	11.6	6.1	11.8	148.3
2011	10.3	4.9	9.2	10.3	151.8

Source: CBN Statistical Bulletin, 2006 and 2011

Choosing and Defining the Target

There is hardly any generally acceptable definition of price stability, despite the much rhetoric about it in policy circles. While Bernanke et al. (1999) defined price stability as “the rate of inflation so low that businesses and households do not have to take it into account in making everyday decisions”, Owoye (2007) defined price stability in Nigeria as “the attainment of single-digit inflation rate on an annual basis”. Bernanke et al. (1999) argued that a zero rate of inflation may not be suitable as an inflation target, and explained that maintenance of zero rate of inflation may precipitate unemployment by preventing real wage from falling in the face of declining demand. Also, a low or zero rate of inflation may induce low level of nominal interest rate, leaving the Central Bank with very little room to lower interest in the face of recession. Therefore, an inflation target or a stable price regime should be one in which inflationary expectation can be effectively anchored.

Another conceptual issue relates to what should be the appropriate price index to use as a measure of inflation target. The popular measures of inflation used are the core inflation, which takes account of the effect of the first round of price increase due to supply or demand shocks and the headline inflation based on Consumer Price Index (CPI). In Nigeria, for fear of excessive target misses which may weaken credibility, the core inflation measures should be considered. Also given the country’s long history of high inflation rates, a target band of 8-11 percent would seem realistic. On the issue of who sets the target for the purposes of assigning and shouldering responsibility, it is suggested that the Monetary Policy Committee (MPC) should set the target. The MPC membership consists of the Governor who is the Chairman, four deputy Governors of CBN, two members of the board of Directors of CBN, three appointees of the President and two appointees of the Banker’s Committee. This will greatly enhance the independence and professionalism of the Monetary Authority. In addition, given the fact that price stability operates within the medium to long term frame work, a target horizon of 2-3 years should be appropriate.

Missing of Inflation Targets and the Credibility Issue.

Missing of inflation target is inevitable under IT due to unexpected external and internal shocks into the system. Moreover, deliberate target misses may be allowed to correct other short-term instabilities in the macroeconomic aggregates. It should be noted however, that misses do not suggest that the entire programme is derailed. On this note, Bernanke et al (2008) argued that so long as the central bank is able to explain that the misses are as a result of unforeseen events, the credibility of the central bank need not be compromised. This calls for the existence of an effective communication apparatus between the monetary authorities and the public. In many of the IT countries, this is done through regular inflation reports published mostly on quarterly basis by the Central Bank. The CBN has a number of monthly, quarterly and yearly reports on major developments in the financial sector and the economy generally. However, there is need to institute a special report on inflation targeting if and when adopted.

Need for the Central Bank Independence

For the Central Bank to be held accountable for the success or failure of its monetary policy, it should be allowed a good measure of instrument and policy independence. As already noted, the Central Bank Act of 1998

allowed the Bank instrument autonomy and this was further broadened by Central Bank (Amendment) Act of 2007. Under the 2007 Act, the CBN is empowered “to provide a transparent and credible framework... through the adoption of inflation target as the nominal anchor for monetary policy”. To enhance accountability and flexibility, the CBN powers should only be limited by the requirement that it submits annual inflation reports to the National Assembly.

The ability of the CBN to exercise its discretionary powers under the Act depends crucially on the fiscal posture of the government. A situation where a large percentage of government debt is financed by the CBN could encourage fiscal dominance and undermine the autonomy of the CBN. Nanna (2001) reported that in Nigeria, government fiscal operations, especially, the inflationary financing of large budgetary deficits and the monetization of deficits, have continued to pose serious challenges to monetary management. The setting of strict limits on the financing of government deficits by the CBN has not been successful despite the Bank’s operational autonomy. There is also the need to encourage the deepening of the capital market to provide alternative source of financing government debts.

Table 5: Federal Government Borrowing from the Banking System (Net): Indicator of Fiscal Dominance by the Government (₦ Million)

year	Total Credit to Domestic Economy (Nm) (1)	Fed. Govt. credit (Nm) (2)	CBN Finance of Fed Govt. credit (Nm) (3)	% of Govt. Credit to total (4)	% of CBN’s Credit to Govt. (5)	Govt. Fiscal Deficit % of GDP (6)
1998	519,510.6	133,929.0	88,568.2	25.8	66.1	-4.92
1999	632,010.1	176,804.9	15,325.1	28.0	8.7	-8.93
2000	472,011.7	-123,989.8	-343,003.3	-26.3	-276.6	-2.26
2001	848,992.8	6,006.5	-185,934.6	-21.9	-3095.6	-4.68
2002	1,329,401.3	373,639.2	-41,246.8	-11.0	-11.0	-4.36
2003	1,803,938.1	591,944.7	254,128.6	14.1	42.9	-2.39
2004	2,020,173.3	483,725.5	-6,118.9	-0.003	-1.3	-1.51
2005	2,313,387.7	306,031.9	205,746.3	8.9	-67.2	-1.11
2006	714,205.7	-1,915,007.3	-2,796,028.5	-59.5	-146.0	-0.55
2007	2,710,898.6	-2,368,484.4	-4,074,422.8	-87.4	-172.0	-0.57
2008	4,951,860.3	-3,107,688.6	-4,532,113.6	-62.8	-145.8	-0.20
2009	7,917,041.4	-2,302,294.7	-3,731,603.8	-29.1	-162.0	-3.27
2010	8,708,545.45	1,121,798.63	-2,884,013.4	12.9	-257.1	-3.25
2011	13,686,730.2	-496,861.6	-3,514,447.1	-3.63	-707.3	-3.09

Source: CBN Bulletin 2006 and 2011

As can be seen from Table 5, although in 1998, the federal government credit accounted for 66.1 percent of the total CBN credit, it reduced sharply to 8.7 percent by 1999. Beginning from 2000, the federal government became a net supplier of funds to the banking system, except in 2003 and 2005. This means that government has alternative source of financing its deficit other than the banking system. The implication here is that the CBN may not be fettered in the conduct of its monetary policy, by over-bearing fiscal posture of the Federal Government. However, as can be gleaned from Table 5, the effort to curtail fiscal dominance of the government could not be sustained as the percentage of fiscal deficit to GDP increased from 0.2 percent in 2008 to 3.09 percent in 2011. There is, therefore, the need for effective policy coordination to ensure that the efforts of the

Central Bank at ensuring price stability are not scuttled by excessive fiscal profligacy on the part of the government.

5. THE PROSPECTS FOR IT IN NIGERIA

The prospects for the adoption and implementation of IT framework in Nigeria depend, as earlier mentioned, on the availability of certain critical success factors among which are:

i) A Prolonged Period of Disinflation:

According to Bernanke, et al. (1999) a prolonged period of disinflation of four to six years is required to precede the introduction of IT. This should allow the set inflation target to anchor inflationary expectation, thereby ensuring achievement of the target and the credibility of the policy. In Nigeria, the process of disinflation started with the declaration in 2006 that the attainment of a single-digit rate of inflation is the primary objective of the monetary authorities (CBN, 2007). However, there were major deviations from this target between 2008 and 2009, when inflation rate rose from 6.6 in 2007 to 15.1 percent 2009. Interestingly, as Table 4 shows, from 2009 there was a steady decline in the rate of inflation from 13.9 in 2009 to 10.3 percent in 2011, indicating a possible commencement of a period of disinflation in Nigeria. If this trend were sustained over the next three years, there would have been the prospect that IT framework could conveniently be introduced in the country.

ii) Independence of the Central Bank of Nigeria:

As already discussed above, the ability of the CBN to exercise independent monetary discretion is a crucial factor for the success of the IT framework. The need for a truly independent central bank in the success equation of IT framework is predicated on the causal link between monetary policy autonomy and inflation. Generally, it is argued that a central bank is exposed to strong political pressure to adopt lax monetary policies due to budgetary and seigniorage considerations. An independent central bank will be less subject to these short-term political influences, thus, is better able to commit to long-term policies for promoting price stability. It is further argued that a strong and independent central bank can persuade the government to take measures to reduce the deficit or the volume of outstanding debt. In a memorandum submitted to the National Assembly in 2012, the CBN made a strong case for its independence thus:

The Central Bank of Nigeria (CBN), like most other central banks, has the core mandate of maintaining price stability and ensuring a non-inflationary growth. It also has the responsibility to ensure a sound and stable financial system in addition to other developmental functions. These mandates and functions are peculiar to central banks all over the world, and no other institution performs such functions. These special responsibilities are enormous and have continued to pose increasing challenges to central banks, largely because developments in the domestic and international economies create more intricacies and complexities in the financial systems and the art of central banking. Indeed, the current trend of globalization exemplified by economic and monetary unions has increased the challenges to central banking. The effective discharge of these responsibilities requires that central banks be independent in the true sense of it, that is, shielded from political interferences, have administrative independence and instrument autonomy (CBN, 2012).

The enactments of Fiscal Responsibility Act and the Central Bank (Amendment) Act in 2007 were meant to curtail fiscal excesses/dominance of the government and increase the administrative and instrument autonomy of the CBN.

In 2012 however, the National Assembly proposed an amendment to the CBN Act, 2007 which sought to compromise the independence of the CBN. In particular, the amendment sought to compel the CBN to submit its annual budget to the National Assembly for approval, provided for the appointment of “a person other than the Governor as the Chairman of the Board of the Bank”, excluded Deputy Governors and directors as members of the Board and divested the Board of the power of consideration and approval of the annual budget of the Bank (CBN 2012). Doubtless, these amendments, if passed by the National Assembly would cripple CBN’s independence and consequently obstruct its ability to deliver on its core mandate of maintaining price stability and ensuring a non-inflationary growth. This would in turn deem the prospect of early introduction of IT in Nigeria.

iii) Transparency and Accountability

Successful implementation of the IT framework requires that the CBN must be transparent and accountable in the formulation and implementation of monetary policy. This further requires the institutionalization of a system for effective coordination and communication of its policy intents as well as a demonstration of a firm commitment to maintenance of price stability as overriding objective of monetary policy. While assessing the readiness of Nigeria for the adoption of IT, Aliyu and Englama (2009: 10) reports that:

The day-to-day activities of the CBN are quite transparent and truly accountable as enshrined the CBN Act. Information about the bank's activities is available on a daily basis on the bank's website. Besides, a wide range of monetary and financial data is published at regular intervals. The Bank is also expected to make public at all times, its monetary policy rate (MPR).

A committee which is strategic in this regard is the Monetary Policy Committee (MPC) which communicates its decisions to the public immediately after its meeting which holds bi-monthly.

iv) Virile Financial Market by Depth and Breadth

In the first place, a virile financial market is needed in order to provide alternative source of financing for government debts. This will reduce the incentive to finance public debt through inflation tax (Ways and Means Advances) which may compromise the independence of the central bank. Secondly, a sound financial system is essential to guarantee an efficient transmission of monetary policy through the interest rate channel which constitutes a major channel through which the central bank carries out its main objective of price stability. Thirdly, according to Mishkin (2004), a weak banking sector is potentially problematic to achieve inflation target, because the central bank would be hesitant to raise short-term interest rates for fear that this will impact on the profitability of banks and lead to a collapse of the financial system. Finally, countries characterized by weak financial institutions are said to be more vulnerable to a sudden stop of capital outflows, causing a sharp depreciation of the exchange rate which may lead to upward pressures on the inflation rate (Mishkin, 2004).

In the light of the above convincing arguments for a virile financial market in an IT monetary policy regime, it is pertinent to examine the extent the Nigerian financial market can meet these expectations. Of recent, a number of financial sector reforms have taken place to reposition the sector for improved performance. One of such reforms is the Bank recapitalization and consolidation policy of 2005. Empirical evidences on the impact of the policy on financial sector development have produced mixed results. Account by Bassey (2012) showed that while the exercise has boosted capital market development, level of monetization of the economy and market capitalization of the Nigeria Stock Exchange, it has also reduced asset/deposit ratio significantly and hence the efficiency of the banks and their profitability. Other reforms carried out include the enactments of Fiscal Responsibility Act and the Central Bank (Amendment) Act in 2007 which were meant to curtail fiscal excesses/dominance of the government. Others include the establishment of Asset Management Corporation of Nigeria (AMCON) to fight distress conditions and improve the quality of bank assets, the establishment of Financial Stability Committee (FSC) to ensure systemic stability within the financial sector and the introduction of the Cash-less policy.

Despite these laudable efforts, the Nigerian financial sector is yet to attain the level of efficiency that will enable it serve as a catalyst for effective implementation of IT framework in Nigeria. This is because of certain structural defects inherent in the system. Sanusi (2010) described the Nigerian financial system as being characterized by eight major structural defects, namely, financial instability caused by large and sudden capital inflows, poor corporate governance at banks, lack of investor and consumer sophistication, gaps in regulatory framework and regulations, uneven supervision and enforcement, unstructured governance/weakness within the CBN and weakness in the business environment. Unless these identified defects are properly addressed, the prospect of an early commencement of IT framework may not materialize.

v) Existence of Stable and Predictable Relationship between Monetary Policy Instruments and Inflation.

Important to the attainment of a sound monetary policy is the identification of a reliable monetary transmission mechanism, which best communicates monetary actions to the desired target.

Under inflation targeting, the interest rate is the main monetary policy tool for influencing activity and inflation (Stone, et al., 2009). Because interest rates and inflation rates tend to move in opposite directions, the likely actions a central bank will take to raise or lower interest rates become more transparent under an inflation targeting regime. Advocates of inflation targeting think this leads to increased economic stability (Jahan, 2012). In Nigeria, it is doubtful if the monetary policy rate (MPR) can be effectively used to anchor inflationary expectation. The ability of the CBN to use MPR to stabilize the price level depends crucially on the fiscal posture of the government. So long as government fiscal deficit continues to grow, the CBN is arms tied to relax its monetary policy stance to boost output and employment. At present the MPR is continuously set at a high rate of between 11-12 percent which translates to interest rate in the real sector of 20 percent. The CBN Governor is reported to have said that “rate reductions will depend on whether the government can control spending. The central bank shouldn’t rush into cutting rates and then raising. How much room we have to cut depends on what happens in the fiscal space” (Akinade, 2013). Meanwhile, the manufacturers and others in the real sector are crying out against the high interest rate as being detrimental to the growth of the economy since it limits accessibility to cheap credit. Obviously, there seems to be a disconnection between the fiscal and monetary policy coordination in the country. The real implication here is that there is extent to which price stability can be maintained without hurting growth. A situation whereby the CBN cannot vary its policy rates to deal with short term fluctuations in the economy may not augur well for the functioning of IT framework.

vi) Maintenance of a Stable and Flexible Exchange Regime

A key to a successful transition from a non-IT to an IT monetary framework is the establishment of a systematic, consistent and market-based exchange rate regime for the country. According to Stone, et al (2009), using the exchange rate as the operating policy target can generate better macroeconomic performance than using a policy reaction function dominated by the interest rates. The choice of operating target during the transition, as argued by Stone (ibid), depends on the degree of domestic money market development. Central banks moving toward inflation targeting generally need to strengthen their macroeconomic analysis and develop a systematic approach to policy decision-making. Epstein and Yeldan (2006) have argued that an important requirement for the smooth transition to IT framework is the implementation of flexible exchange rate regime. Accordingly, the central banks should abandon their interventionist policies in the foreign exchange markets for all practical purposes other than pursuit for price stability. Any other response to the foreign exchange market represents a departure from the IT system. It is argued that attending to inflation targeting and reacting to the exchange rate are mutually exclusive. Beyond this assertion, there is also the view that intervention in the foreign exchange market could confuse the public regarding the ultimate objective of the central bank with respect to its priorities, distorting expectations. In a world of credibility game, such signals would be detrimental to the central bank’s authority.

Another dimension to the problem of using exchange rate as operating variable for smooth transition to IT monetary framework is expressed by Calvo and Reinhard (2002) as cited in Jahan (2012). According to them, majority of emerging markets are facing problem in performing inflation targeting due to various issues of how to manage the exchange rate under the condition that their external debt is primarily denominated in U.S. dollars. Since the IT framework is believed to work best under floating exchange rate regime, majority of these emerging countries recoil from the idea of adopting the IT framework due to too much concern towards exchange rate volatility and its implication for their debt stock. Epstein and Yeldan (2006) presented a two-way argument on the importance of effective exchange rate policy for an IT framework. According to them, “an exchange rate regime makes central bank quite accountable because it has clear-cut goals... but can actually weaken accountability of the central banks in emerging- markets countries, by eliminating important signal that can help keep monetary policy from becoming too expansionary”. In Nigeria these considerations have featured prominently in the debate whether or not to transit to full-fledge IT framework. Mazen and Kay (2012) reporting on the Nigerian case said, “We think the CBN is setting policy with its eye on the foreign exchange rate and the budget -- more so than inflation on its own”. According to them, while the IMF called for a “clear inflation objective” from the CBN, the Bank on its own is insisting that “there isn’t a need for an inflation- targeting policy, rather the CBN remains committed to stable prices with an implicit target of no more than 10 percent and continue to insist that we must always seek stability that is conducive to economic growth”. The extent to which the CBN can achieve this laudable objective will largely depend on the ability of the Government to inject fiscal prudence into the polity.

6. RECOMMENDATIONS AND CONCLUSION

6.1 RECOMMENDATION

Over the years, Nigeria has passed through various monetary policy regimes with limited or no success. These included exchange rate targeting, direct monetary controls and monetary targeting. The overall objectives of monetary policy have been the maintenance of macroeconomic stability and non-inflationary growth. In line with the global trend, the country has recently been navigating towards adopting IT monetary framework for the country. So far, positive steps have been taken toward satisfying the requirements for the adoption of IT framework. The requirements include the attainment of instrument autonomy for the CBN, commencement of a period of disinflation, introduction of Fiscal Responsibility Act to encourage fiscal prudence, introduction of financial sector reforms aimed at improving the efficiency of the sector, capital market reforms, adoption of flexible exchange rate regime and the adoption of monetary policy rate (MPR) as the operation target of monetary policy.

Despite these laudable efforts, the country is yet to be fully set for the adoption of full-fledged IT. This paper does not consider policy reversal as a feasible option at this time. Rather, efforts should be made to consolidate the gains so far recorded in line with the following suggestions:

- i) The current efforts at achieving disinflation should be sustained through the adoption of fiscal prudence and a tight monetary policy. There is therefore, the need for effective policy coordination to ensure that the efforts of the Central Bank at ensuring price stability are not scuttled by excessive fiscal profligacy on the part of the government.
- ii) The ongoing effort to strengthen the independence of the CBN should be sustained. This will enhance the transparency and credibility of the monetary policy and accountability of the CBN.
- iii) The ongoing policy to deepen the capital market through the creation of bonds market to provide alternative source of financing government debt should be sustained.
- iv) There is need for the Monetary Policy Committee to draw up a definite time table for the eventual take off of IT framework for Nigeria. The transitional period should last between three and five years from the time of commencement.
- v) A separate body, the Monetary Policy Monitoring, Evaluation and Reporting Committee (MERC), should be set up to handle the issues of assessment, monitoring and reporting on macro-economic developments with view to evaluating the performance of the programme. Setting up of this body will provide a check and balance to the MPC and free the MPC to concentrate on a more daunting job of formulating and implementing the policies.

6.2 Conclusion

The Inflation Targeting framework at the initial period of adoption will bring about costs in terms of slow growth of output and sticky rise in unemployment as evident in the experience of countries that currently adopt the framework. However, sometime after adoption of IT framework (probably after three or five years), given a congenial macroeconomic environment, there is the chance of gains associated with the framework (rise in output, stable prices, rise in employment) exceeding the costs.

REFERENCES

- Agba, A. V. (2006): An overview of the Monetary Targeting Strategy and the Need for Inflation Targeting in Nigeria. In: Proceedings of 15th Annual Conference of Research and Statistics Department of CBN, Bauchi.
- Akinade, J. (2013). Sanusi, Monetary Policy and Economic Development in Nigeria. Nigeria Village Square.htm
- Aliyu, S. U. R. and Englama, A. (2009). Is Nigeria Ready for Inflation Targeting? MPRA Paper No. 14870 at <http://mpra.ub.uni-muenchen.de/14870>
- Barro, R. J. (1995). Inflation and Growth. Bank of England Quarterly Bulletin, 53.
- Bassey, G. E. and Onwioduokit, E. A (2011). An Analysis of Threshold Effects of Inflation on Economic Growth. West African Financial and Economic Review. 8(2).
- Bassey, G. E. (2012). An Assessment of the Impact of Recapitalization and Consolidation on Bank Performance in Nigeria. International Journal of African Culture, Politics and Development. 7 (2).
- Bernanke B. S., Laubach T., Mishkin F. S. and Posen A. S (1999): Inflation Targeting: Lessons from the International Experience. New Jersey: Princeton University Press.
- Bruno, M. and Easterly, W. (1998). Inflation Crisis and Long-run Growth. Journal of Monetary Economics, 41.
- CBN (2007): The Dynamics of Inflation in Nigeria (Research and Statistic), Abuja.
- CBN (2012): A Memorandum Submitted to the National Assembly in Respect of the Proposed Amendment to the CBN Act, 2007. www.proshareng.com

- Debelle G. (1999): Inflation Targeting and Output Stabilization. Reserve Bank of Australia, Research Discussion Paper.
- Epstein G. & Yeldan E. (2006). Developing Policy Alternatives to Inflation Targeting, the New Façade of Neoliberal Condition: An Introduction. International Development Economics Association, New Delhi
- Epstein G. & Yeldan E. (2008): Beyond Inflation Targeting: Assessing the Impact and Policy Alternative. Workshop on Monetary Policy and Inflation Target organized by Economic Research Forum, Tunisia.
- Ghosh, A. and Philips, S. (1998). Warning: Inflation may be Harmful to your Growth. IMF Staff Papers, 45(4).
- Heintz, J. and Ndikumana L. (2010): Is there a Case for Formal Inflation Targeting in Sub-Saharan Africa? African Development Bank Group Working Paper No. 108
- Jahan, S. (2012). Inflation Targeting: Holding the Line. **Finance & Development**, March.
- Kadioglu F., Ozdemir N. and Yilmaz G. (2000). Inflation Targeting in Developing Countries. Central Bank of Turkey.
- Mazen, M. and Kay, C. (2012). Nigeria's Sanusi Says Price Surge Doesn't Mean Higher Rates. Bloomberg,htm
- Mbutur, M. O. (2006): Migrating to Inflation Targeting in Nigeria; Learning from the Experience of Brazil. In: Proceeding of Annual Conference of CBN, Bauchi.
- Mishkin, F. S. (2007): The Economics of Money, Banking and Financial Market. Boston: Pearson Education Inc.
- Nanna, O. J. (2001). Monetary Policy Framework in Africa: The Nigerian Experience. Research Department. CBN.
- Odosola, A. (2006). Sustainable Economic Growth through Inflation Targeting in Nigeria. In: CBN Research and Statistics offices Annual Conference on Inflation Targeting in Nigeria, Bauchi.
- Oleka, J. K. A. (2006). Inflation Targeting in Practice: Country Experienced and Lessons for Nigeria. In: Proceedings of the 15th Annual Conference of CBN Research and Statistics Offices, Bauchi.
- Parvado E. (2004) Inflation Targeting and Exchange Rate Rules in Open Economy. IMF Working Paper.
- Pollin, R. A. (2006): Inflation and Economic Growth: A cross-country Nonlinear Analysis. Journal of Post Keynesian Economics. (28) 4.
- Pui, C. I. (2003). Inflation and Growth Targeting. 32nd Conference of Economist, Canberra, ACT.
- Ryan, C. and Thompson C. (2002). Inflation Targeting and Exchange Rate Fluctuations in Australia. Research Discussion Paper, Reserve Bank of Australia.
- Stone, M., Roger, S., Shimizu, S., Nordstrom, A., Kisinbay, T. and Restrepo, J. (2009). The Role of the Exchange Rate in Inflation-Targeting. IMF Occasional Paper 267
- Uchendu O. (2002). Inflation Targeting: A Monetary Policy Management Framework for the Attainment of Price Stability in Nigeria. CBN Economic and Financial Review. 38 (2).
- Uchendu O. A. (2006). Central Banking Monetary Policy Objectives and Inflation Targeting in Nigeria. In: Proceedings of 15th Annual Conference of CBN Research and Statistics office. Bauchi

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

