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# Assessment of Inflation Trends, Management and Macroeconomic Effects in Ghana

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# Assessment of Inflation Trends, Management and Macroeconomic Effects in Ghana

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# Preface

Ghana has experienced high inflation over a long period of time. Over the past thirty years, monetization of fiscal deficits and cyclical food deficits have been the principal drivers of inflation. Achieving sustained disinflation therefore depends on addressing these factors on a durable basis.

In this paper, the author notes that, inflation management under the previous monetary targeting (MT) framework was ineffective because of the intractability of the underlying causes. The move to inflation targeting (IT) in 2007 did not help matters, mainly because of the stubborness of the underlying causes as well as the absence of the key IT policy and structural conditions.

The author states that, fiscal austerity has helped recent disinflation, but could also have contributed to a slowdown in the economy, especially in 2009. In his view, low, stable inflation is beneficial to growth and employment in the long-run, although there could be short-term costs to rapid disinflation. This assertion is supported by both theoretical and empirical literature, including Ghana's own experience.

He concludes by noting that, oil production will be potentially the biggest influence on future inflation, given expected boost in government expenditure and general aggregate demand. In his view, achieving the low single-digit inflation envisaged over the medium-term would entail exceedingly tight monetary policy, which could in turn put brakes on economic activity.

We hope you find this publication useful.

**Jean Mensa**
**Executive Director**
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# 1.0 Introduction

Ghana has experienced persistently high rates of inflation for several decades. This suggests that either the causes have been intractable, or inflation management has been ineffective, or both. Since July 2009, however, inflation has fallen consistently and by a significant margin, with the oft-elusive single-digit level being reached since June 2010.[2] With government efforts to reduce the fiscal deficit that reached a record high in 2008, and a significant slowdown of the economy in 2009—which could also have been affected by the global economic slowdown—some people have suggested that the rate of disinflation, which they contend to be driven by fiscal austerity or retrenchment, might be too rapid and could have costly output and employment losses down the road.

The purpose of this paper is to throw some light on Ghana's experience with inflation in the past and in the recent period. The paper also looks into the question of whether there are potential output and employment costs to achieving very fast disinflation. The paper is structured as follows: Following this introduction, Section 2 examines inflation trends and causes during the past three decades. This is followed in Section 3 by an assessment of inflation management from the monetary targeting era to the current inflation targeting framework. Section 4 examines the inflation-output link and attempts to address the question of whether there might be permanent output and employment costs to the current disinflation process. Section 5 looks at the sustainability of the current progress in disinflation, especially with the coming on-stream of oil production in the country. The last section concludes the paper.

# 2.0 Inflation Trends and Causes

## 2.1 The Period 1979-2009

During the thirty year period, 1979-2009, Ghana experienced very high rates of inflation. The inflation rates were invariably in the double-digit territory and averaged 32 percent per annum—very high rates by any standard.

Table 1: Inflation, 1979-2009

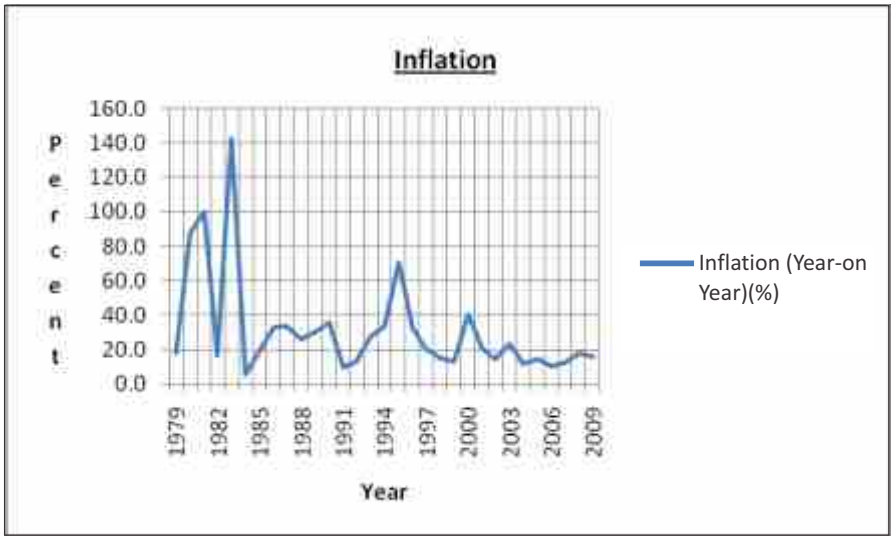
| Year | Inflation (Year-on-Year) (%) |
|---|---|
| 1979 | 18.3 |
| 1980 | 87.8 |

[2] This is not the first time single-digit inflation has been achieved in Ghana. Single-digit inflation was achieved in the past, albeit for brief periods and could not be sustained.

| | |
|---|---|
| 1981 | 100.4 |
| 1982 | 16.7 |
| 1983 | 142.4 |
| 1984 | 6.0 |
| 1985 | 19.5 |
| 1986 | 33.3 |
| 1987 | 34.2 |
| 1988 | 26.6 |
| 1989 | 30.5 |
| 1990 | 35.9 |
| 1991 | 10.3 |
| 1992 | 13.3 |
| 1993 | 27.7 |
| 1994 | 34.2 |
| 1995 | 70.8 |
| 1996 | 32.7 |
| 1997 | 20.8 |
| 1998 | 15.7 |
| 1999 | 13.8 |
| 2000 | 40.5 |
| 2001 | 21.3 |
| 2002 | 15.2 |
| 2003 | 23.6 |
| 2004 | 11.8 |
| 2005 | 14.8 |
| 2006 | 10.9 |
| 2007 | 12.8 |
| 2008 | 18.1 |
| 2009 | 16.0 |
| AVG | 31.5 |

Source: Ghana Statistical Service

Chart 1: Inflation, 1979-2009



Most of the empirical literature attributes Ghana's high inflation to demand pressures emanating from monetization of fiscal deficits. The decision by Ghana after independence to set up its own central bank to conduct independent monetary policy sowed the seeds for future high inflation. Over the years, the central bank became an important source of financing for governments' budgets—a classical ingredient for high inflation. It is not by chance that Ghana has had much higher rates of inflation compared to its peers who chose to conduct their monetary policy in the context of monetary unions that limit monetization of fiscal deficits.

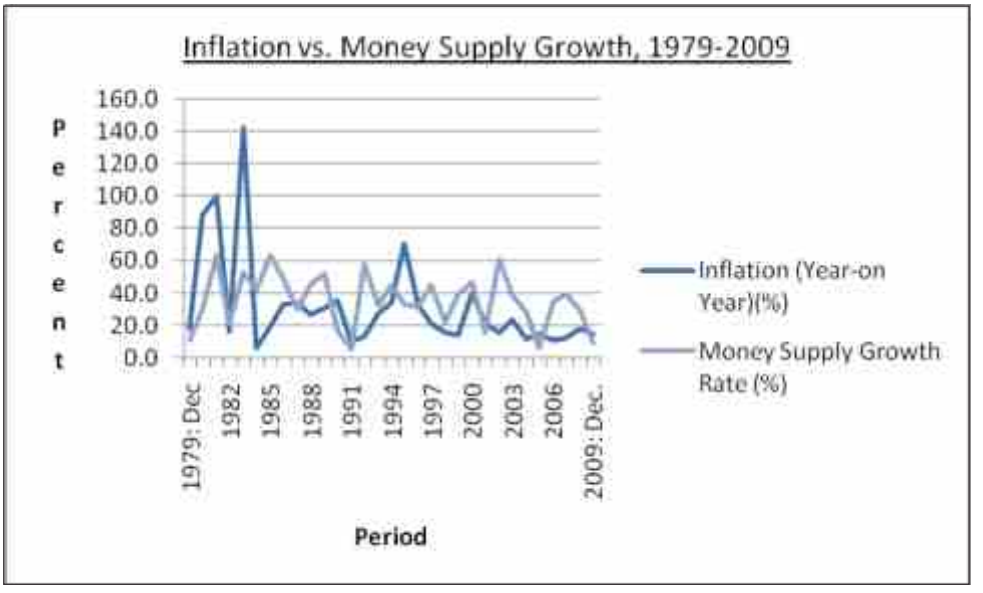
Table 2: Inflation and Money Supply Growth, 1979-2009

| Year | Inflation (Year-on Year)(%) | Money Supply Growth (%) |
|---|---|---|
| 1979: Dec | 18.3 | 10.9 |
| 1980 | 87.8 | 30.1 |
| 1981 | 100.4 | 63.0 |
| 1982 | 16.7 | 21.2 |
| 1983 | 142.4 | 52.6 |
| 1984 | 6.0 | 41.9 |
| 1985 | 19.5 | 63.2 |
| 1986 | 33.3 | 48.6 |
| 1987 | 34.2 | 30.3 |
| 1988 | 26.6 | 44.9 |
| 1989 | 30.5 | 51.8 |
| 1990 | 35.9 | 17.1 |
| 1991 | 10.3 | 5.7 |
| 1992 | 13.3 | 57.4 |
| 1993 | 27.7 | 32.2 |
| 1994 | 34.2 | 45.4 |
| 1995 | 70.8 | 33.4 |
| 1996 | 32.7 | 31.3 |
| 1997 | 20.8 | 45.3 |
| 1998 | 15.7 | 22.3 |
| 1999 | 13.8 | 39.9 |
| 2000 | 40.5 | 46.5 |
| 2001 | 21.3 | 15.8 |
| 2002 | 15.2 | 60.5 |
| 2003 | 23.6 | 38.4 |
| 2004 | 11.8 | 28.2 |

| | | |
|---|---|---|
| 2005 | 14.8 | 6.3 |
| 2006 | 10.9 | 35.1 |
| 2007 | 12.8 | 39.9 |
| 2008 | 18.1 | 29.7 |
| 2009 | 14.8 | 9.4 |

Source: Ghana Statistical Service and Bank of Ghana.

Chart 2: Inflation and Money Supply Growth, 1979-2009




This is not to say, however, that Ghana's inflation has been entirely a monetary phenomenon. Other "residual" factors have been recognized in the literature as emanating from the "real" or "supply" side of the economy. Among these, food inflation has been cited as contributing to the high aggregate inflation in Ghana.[3] In fact, the real-side effects appear to have been more prominent in the pre-1983 period. The inflation-monetary growth plot in Chart 2 shows much higher amplitudes for inflation than for monetary growth for that period, indicating that inflation was influenced by other important factors beyond monetary growth. After substantial deregulation of the economy from 1983 in the context of the Economic Recovery Program (ERP) and the successive Structural Adjustment Programs (SAPs), cost pressures have become an important factor in influencing inflation. Among these are pressures emanating from rising energy and utility prices and exchange rate depreciation. As inflation became entrenched, expectations also became embedded in wages, exchange rates, interest rates and the prices of goods and services, further fuelling inflation.

[3]See Kwakye, 1981, and Sowa and Kwakye, 1993, among others.

## 2.1 The Recent Period, January 2009-August 2010

Since January 2009, inflation has fallen from around 20 percent to 9.4 percent in August 2010. Some people have attributed the recent disinflation to fiscal austerity or retrenchment, although the authorities deny this. But what do the facts show?

Table 3: Inflation, Jan. 2009-August 2010

| Period | Inflation (Year-on-Year) |
|---|---|
| 2009: Jan | 19.9 |
| Feb | 20.3 |
| Mar | 20.5 |
| Apr | 20.6 |
| May | 20.1 |
| Jun | 20.7 |
| Jul | 20.5 |
| Aug | 19.7 |
| Sep | 18.4 |
| Oct | 18.0 |
| Nov | 16.9 |
| Dec | 16.0 |
| 2010:Jan | 14.8 |
| Feb | 14.2 |
| Mar | 13.3 |
| Apr | 11.7 |
| May | 10.7 |
| Jun | 9.5 |
| Jul | 9.5 |
| Aug | 9.4 |

Source: Ghana Statistical Service and Bank of Ghana

Chart 3: Inflation, Jan. 2009-Aug. 2010

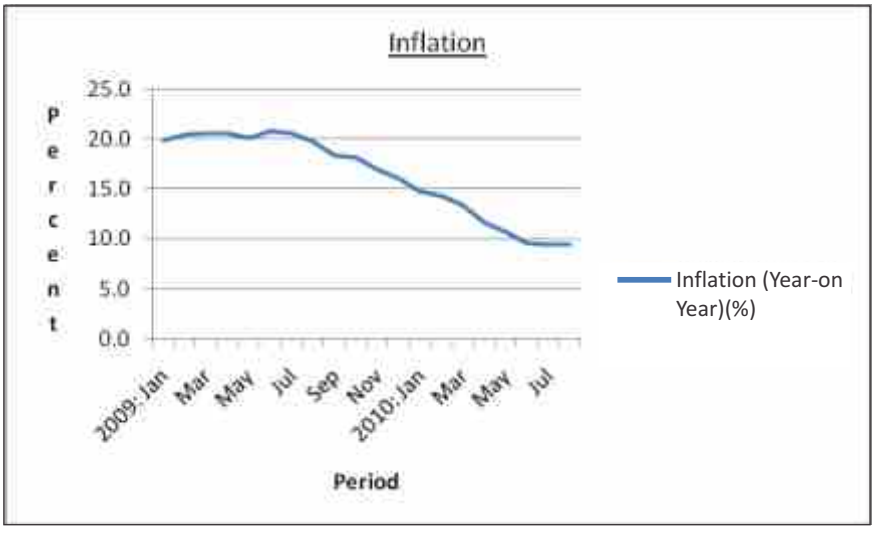


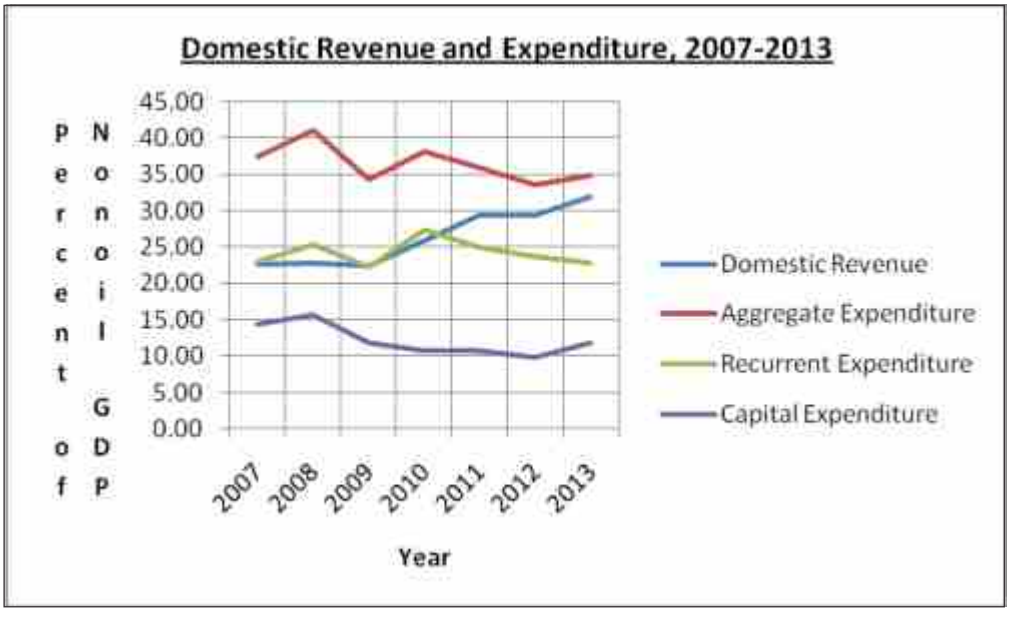
Table 4: Government Revenue and Expenditure (Percent of Non-oil GDP)

| Year | Domestic Revenue | Aggregate Expenditure | Recurrent Expenditure | Capital Expenditure |
|---|---|---|---|---|
| 2007 | 22.70 | 37.30 | 23.00 | 14.40 |
| 2008 | 22.80 | 41.00 | 25.40 | 15.70 |
| 2009 | 22.50 | 34.20 | 22.30 | 11.90 |
| 2010 | 25.90 | 38.10 | 27.30 | 10.80 |
| 2011 | 29.40 | 35.80 | 25.00 | 10.80 |
| 2012 | 29.30 | 33.50 | 23.70 | 9.80 |
| 2013 | 31.90 | 34.80 | 22.90 | 11.90 |

Source: IMF Staff Report on Ghana's First and Second ECF Reviews, May 17, 2010. 2010-2013 figures are estimates.

Oil production is presumed to start in 2011-Q1.

Chart 4: Government Revenue and Expenditure,2007-2013




Government expenditure as a ratio of GDP in fact contracted in 2009 by 6.8 percentage points from 41.0 percent to 34.2 percent, even as revenue remained at about the same level. (See Table 4). The reduction in expenditure reflected in both recurrent and capital expenditure, which decreased by 3.10 and 3.80 percentage points each. Notably, the reduction in government expenditure was accompanied by net accumulation of domestic arrears.

While some repayments were made, more arrears were accumulated such that at the end of 2009, total outstanding payment arrears amounted to GH¢1,429 million, compared with GH¢1,131 million at end of 2008, representing a net

increase of GH¢298 million or 26 percent. (See Table 5). In 2010, the stock of arrears is projected to fall by GH¢110 million or 7.7 percent to GH¢1,319 million, which will still be above the end-2008 level. The reduction in government expenditure reduced the flow of money into the economy, with (narrow) money supply growing by a mere 9.4 percent in 2009 compared with 29.7 percent in 2008. Reduced monetary growth meant reduced aggregate demand growth that contributed to dampen inflation pressures. Given the dominance of the public sector in the Ghanaian economy in terms of the resources it commands and the employment it provides, reduction in government expenditure can greatly affect spending—including spending by government employees, road contractors, suppliers of government goods and services, municipalities, statutory funds and subvented organizations. As we have noted above, reduction in government expenditure reflected in both the recurrent and capital components, which should have widespread consequences.

Table 5: Stock of Domestic Payment Arrears (GH¢Million)

| Year | Repayments | Accumulation | End-Period Stock |
|---|---|---|---|
| 2007 | n.a | n.a | n.a |
| 2008 | n.a | n.a | 1,131 |
| 2009 | 627 | 924 | 1,429 |
| 2010 | 223 | 113 | 1,319 |
| 2011 | 740 | 150 | 729 |
| 2012 | 729 | 166 | 166 |

Source: IMF Staff Report on Ghana's First and Second ECF Reviews, May 17, 2010.

Apart from the dampening impact of reduced government spending on inflation, the effect of low food inflation on recent overall inflation has been particularly significant and should be duly recognized. In fact, were it not for this effect, we would not be having single-digit headline inflation by now. This is because while food inflation reached single digit as far back as January 2010, non-food inflation has remained in double digits. (See Table 6 and Chart 5). That indicator—which is one measure of core inflation—should be the proper judgment on the effectiveness of monetary policy.

In fact, non-food inflation rose in July and further in August, which could be a turning point in its recent decline, given the potential impact of higher utility prices and the advent of the Single-Spine Salary Structure. Pressures on government spending, including towards clearing domestic arrears, also pose a risk to inflation going forward.[4] If the rise in non-food inflation should persist,

[4] In fact, government expenditure is projected to increase by as much as 3.9 percentage points in 2010. (See Table 4).

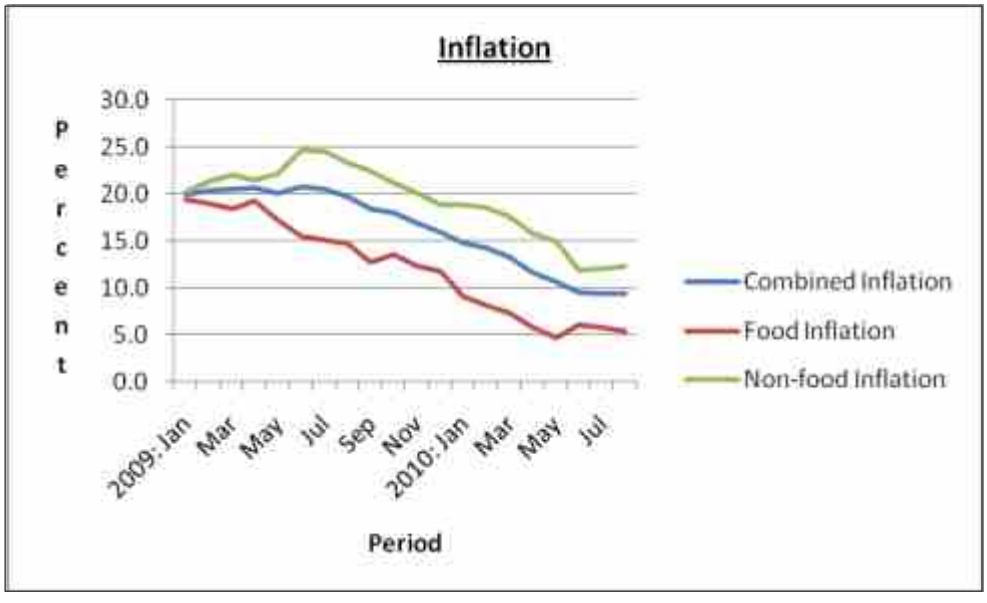
we would not be surprised to see the MPC halt or even reverse its recent policy-easing bias.

Table 6: Inflation, Jan. 2009-Aug 2010: Combined, Food, Non-Food

| Period | Combined Inflation | Food Inflation | Non-food Inflation |
|---|---|---|---|
| 2009: Jan | 19.9 | 19.4 | 20.2 |
| Feb | 20.3 | 19.0 | 21.3 |
| Mar | 20.5 | 18.5 | 22.0 |
| Apr | 20.6 | 19.3 | 21.5 |
| May | 20.1 | 17.2 | 22.2 |
| Jun | 20.7 | 15.5 | 24.7 |
| Jul | 20.5 | 15.2 | 24.5 |
| Aug | 19.7 | 14.8 | 23.3 |
| Sep | 18.4 | 12.8 | 22.4 |
| Oct | 18.0 | 13.5 | 21.2 |
| Nov | 16.9 | 12.4 | 20.1 |
| Dec | 16.0 | 11.8 | 18.8 |
| 2010: Jan | 14.8 | 9.1 | 18.8 |
| Feb | 14.2 | 8.2 | 18.5 |
| Mar | 13.3 | 7.4 | 17.6 |
| Apr | 11.7 | 5.8 | 15.8 |
| May | 10.7 | 4.7 | 15.0 |
| Jun | 9.5 | 6.1 | 11.9 |
| Jul | 9.5 | 5.8 | 12.0 |
| Aug | 9.4 | 5.3 | 12.3 |

Source: Ghana Statistical Service

Chart 5: Inflation, Jan. 2009-Aug. 2010: Combined; Food, Non-Food

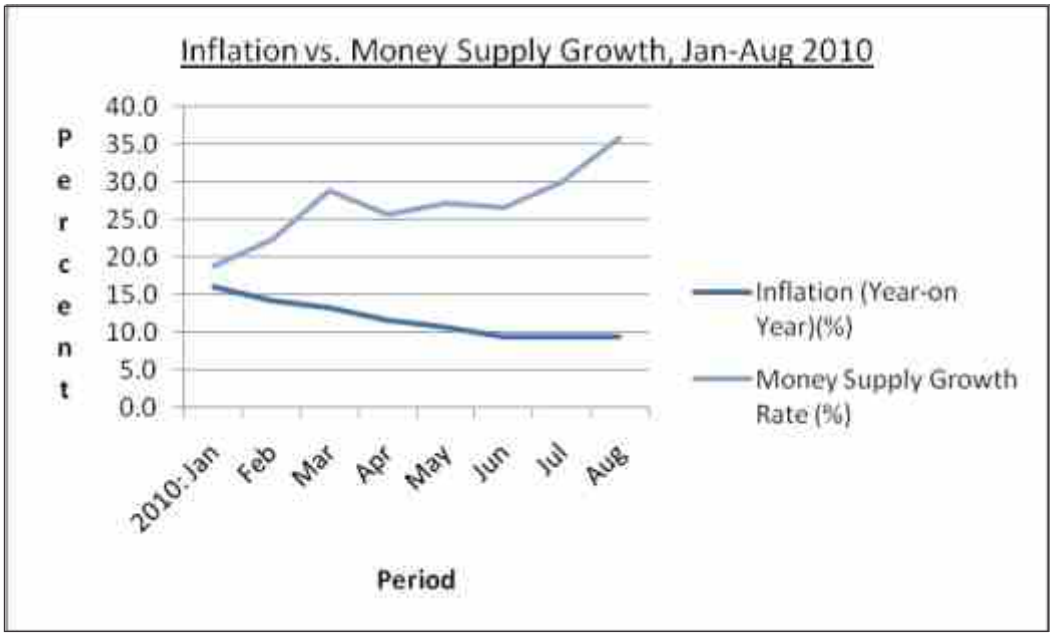


The recent decline in inflation has also been helped by a relatively stable exchange rate, which in turn must have been aided by the reduced government spending and aggregate demand. The year 2009 also appears to have coincided with declining oil prices and stable utility prices as well as low world inflation due to the global recession. All these factors must have aided the decline in domestic inflation. In fact, in the more recent period, Jan-Aug 2010, while monetary growth rates have been high and rising, inflation has been on a declining path, again highlighting the dominant influence of declining food inflation (See Table 7 and Chart 6).

Table 7: Inflation and Money Supply Growth, Jan.-Aug, 2010

| Year | Inflation (Year-on Year)(%) | Money Supply Growth Rate (%) |
|---|---|---|
| 2010: Jan | 16.0 | 18.8 |
| Feb | 14.2 | 22.3 |
| Mar | 13.3 | 28.8 |
| Apr | 11.7 | 25.6 |
| May | 10.7 | 27.0 |
| Jun | 9.5 | 26.6 |
| Jul | 9.5 | 29.8 |
| Aug | 9.4 | 35.8 |

Chart 6: Inflation and Money Supply Growth, Jan.-Aug. 2010



# 3.0 Inflation Management

Prior to 2007, monetary policy was conducted under a monetary targeting (MT) framework. Under this framework, money supply was controlled as an intermediate variable, using largely quantity-based Open Market Operations as the operating instrument, in order to achieve the ultimate target, inflation. There was limited success in controlling inflation given the effect of large-scale deficit financing on monetary growth coupled with supply shocks and other cost-push factors over which the central bank had little or no control. Meanwhile, the relationship between money supply and inflation weakened over time, a manifestation usually attendant to financial and other structural changes in the economy.

In 2007, the monetary authorities decided to shift from monetary-targeting (MT) to inflation- targeting (IT), which directly targets inflation without using money supply as a route. The key operating instrument has been the benchmark Policy Rate (PR) by which the central bank signals a change in the cost of credit. The IT framework has been adopted by a number of advanced economies and a handful of developing economies, in most cases as a natural progression from monetary targeting. IT seeks to enhance transparency and accountability in inflation management. To be effective, IT requires certain policy and structural conditions. The key policy conditions are fiscal discipline and exchange rate flexibility, both of which facilitate monetary policy conducted mainly via interest rates. A key structural requirement for successful IT is a financial sector that is sufficiently developed to be able to support effective transmission of monetary policy through interest rates to inflation and the real economy. Also important is autonomy of the central bank to conduct monetary policy freely. Additionally, effective IT requires adequate and reliable data and a robust and comprehensive forecasting model.

The natural question to ask is how conditions in Ghana measure up against these requirements.
On the policy side, fiscal dominance has remained a feature of the Ghanaian economy. This puts pressure on monetary policy, which has to counter the adverse effects, including pressures on the prices of goods and the exchange rate.

Regarding exchange rate policy, despite the de jure adoption of a “flexible regime” as far back as 1984, the exchange rate cannot be said to have been left fully to the interplay of market forces. Official sales of foreign exchange to meet demand for imports and other payments cannot always be separated from interventions ostensibly aimed at “smoothing short-term fluctuations in the exchange rate,” to use the official parlance. Demand pressures emanating from expansionary macroeconomic policies and occasional shortfalls in foreign exchange supply have, however, led to persistent exchange rate depreciation. In

the past year, however, the exchange rate has been fairly stable, ostensibly due to reduced fiscal pressures and low foreign exchange demand from a slowing economy. The benefit of a flexible exchange rate is that it helps to absorb shocks and take some of the pressure off monetary policy, which otherwise would have to be tightened through interest rate increases.

On the structural side, despite the fast growth of the financial sector in the past few years, financial intermediation and financial depth remain low, implying that transmission of monetary policy via interest rates remains weak. On the other hand, while the autonomy of the central bank is guaranteed de jure under its Charter, the exercise of this autonomy, de facto, has been tepid in the face of fiscal dominance in the economy. On the forecasting framework, the timeliness and reliability of data may not be the best. Further, it is not certain how robust and comprehensive the forecasting model is. In IT, a future forecast of inflation is usually made and policy action initiated today to ensure that the target will be reached, given lags in the impact of policy. In other words, the approach is one of forward-looking. We want to believe that the Monetary Policy Committee (MPC) adopts a similar approach. However, the way that the MPC seems to place considerable emphasis on past inflation developments as the basis for its current policy actions, would appear to suggest a kind of backward-looking bias. That is, instead of leading inflation, the MPC may be following it. More specifically, in recent months that the MPC's Policy Rate has been consistently reduced, this has been justified in terms of falling inflation. But, we want to believe that the policy easing would ensure the achievement of future inflation targets.

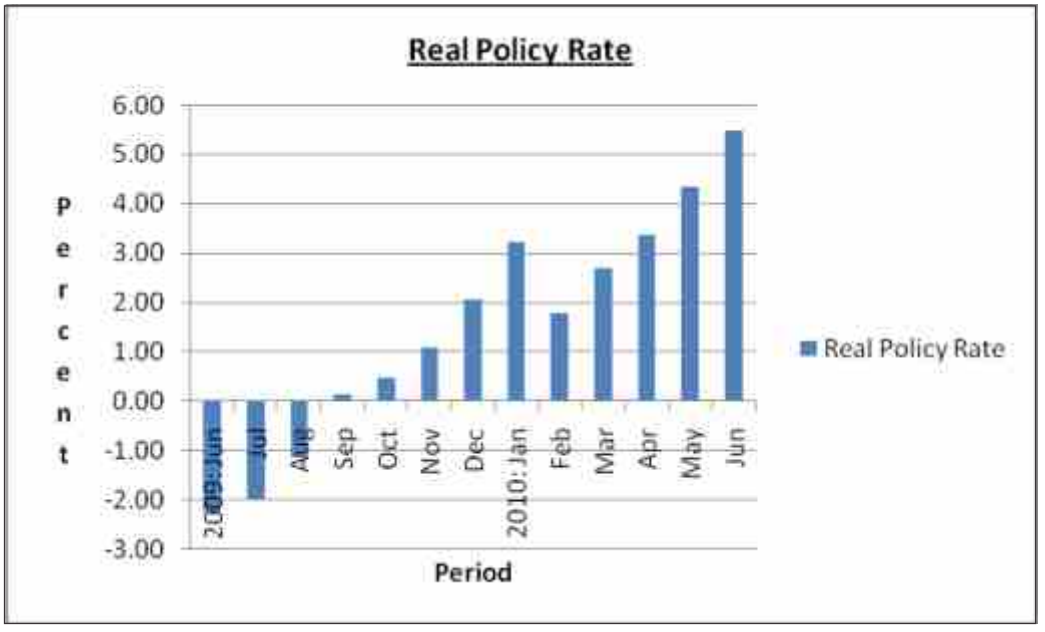
Another important issue in inflation management is the appropriateness of monetary policy stance as signaled by the PR. A relevant measure of this stance is the real PR, i.e. the nominal PR discounted for inflation.

Table 8: Real Policy Rate, Jun 2009-Jun 2010

| Period | Real Policy Rate |
|---|---|
| 2009: Jun | -2.24 |
| Jul | -2.00 |
| Aug | -1.15 |
| Sep | 0.13 |
| Oct | 0.46 |
| Nov | 1.08 |
| Dec | 2.03 |
| 2010: Jan | 3.22 |
| Feb | 1.77 |
| Mar | 2.68 |
| Apr | 3.34 |
| May | 4.32 |
| Jun | 5.48 |
| Jun'09-Jun'10 change | 7.72 |

Chart 7a: Real Policy Rate, Jun 2009-Jun 2010


Chart 7b: Real Policy Rate, Jun 2009-Jun 2010




As Table 8 and Charts 7a and 7b show, the real PR was negative between June and August 2009, before turning positive thereafter. The negative or low positive real PR during June-Oct 2009 would suggest that monetary policy was not sufficiently tight during that period. Meanwhile, recent MPC communiqués indicate that the monetary authorities have been "easing policy" from October 2009—consistent with falling inflation—by reducing the PR. Ironically, the fact that the real PR has been increasing seems to suggest to us rather a process of

"policy tightening" in the real sense. Our inference from all this is that, on the one hand, the monetary authorities did not seem to have had in place a PR that was sufficiently high in the earlier period when it was needed to stem inflation. On the other hand, in the latter period, the authorities might have been tightening policy in a real sense rather than easing it, contrary to the official pronouncements. The two results appear to suggest some kind of instrument-goal inconsistencies.

Meanwhile, we know that the authorities' inflation target has been consistently exceeded, sometimes by wide margins. Because of these shortcomings, some, including the IMF, would prefer to describe Ghana's IT as "IT-lite" rather than a "full-fledged IT." It has indeed been suggested that the authorities intensify their efforts to improve the critical policy and structural conditions to enhance the effectiveness of the framework. As the IMF and others have also suggested, it would probably be best, in the interest of monetary policy credibility, for the authorities to channel their efforts, in the mean time, towards providing their best "estimate" of inflation rather than trying to achieve what appears to be an ever-elusive target. When conditions permit, the inflation estimates could be transformed into concrete targets. There is some comfort in that the official inflation target for 2010 might be achieved. But whether this year's success could be replicated in the succeeding years is the key question, which we examine in Section 5.

# 4.0 The Macroeconomic Effects of Inflation and Disinflation

## 4.1 The General Literature

The preponderance of the literature suggests that macroeconomic stability is more favorable to economic growth than macroeconomic instability. This is because macroeconomic stability is considered to be more conducive to investment. The relevant time frame here, however, is the long run. While there must have been cases where macroeconomic instability has been associated with growth, ostensibly because high inflation may temporarily make businesses profitable and, therefore, lead to increased investment, growth tends to be volatile in a macroeconomically-unstable environment. Macroeconomic stabilization policies may also lead to loss of output in the short run, but over the long run, it is considered to be beneficial to growth and employment. While the superior economic growth performance of South East Asian countries was achieved through different policy models, one feature common to them was the maintenance of macroeconomic stability. The economies of their peers in Latin America that were characterized by macroeconomic instability, on the other hand, achieved relatively erratic growth.

Indeed, the adverse macroeconomic effects of high inflation are well documented. Because it is perceived to increase uncertainty in business planning, high inflation is considered to inhibit investment and therefore economic growth. High inflation erodes the purchasing power of the middle class and fixed-income earners who may become lethargic, disillusioned and less productive. High inflation undermines the incentive to save and to work, and breeds speculation, rentseeking and corruption, all of which are inimical to economic growth. That said, it has been recognized that high inflation could lead to higher investment and production to the extent that it might increase profit margins for businesses. But such desirable effects are regarded as being only temporary and could be eroded if high inflation is sustained over a longer period of time when the adverse effects become overriding.

The adverse effects of low inflation are less well-documented. Low inflation may result in output and employment losses, especially if it is achieved through rapid and excessive compression of expenditure. By reducing profit margins for businesses, low inflation may also lead to lower production and growth. But, just like the potential benefits of high inflation, the adverse effects of low inflation are regarded as temporary, with overriding potential long-term benefits.

## 4.2 The Ghanaian Experience

Over the past year or so, Ghana has achieved a fast rate of disinflation, with inflation reaching single digit during June-August 2010. In 2009, the budget deficit was reduced by 4 percentage points, inflation was reduced by 3.3 percentage points, and real GDP growth fell by 3.1 percentage points. Some commentators have tried to link directly the loss in real GDP growth—and, possibly, jobs as well—to the reduction in the deficit and inflation.[5]

To the extent that the reduction in inflation in 2009 was accompanied by a reduction in government expenditure, it could have contributed to the decline in output and possibly in employment as well, although hard figures on employment are difficult to come by. As we have indicated in Section 2.2 above, the reduction in government expenditure in 2009 was reflected in both recurrent and capital expenditure, which could have had a dampening effect on private domestic consumption, investment and economic activity. We have to recognize, however, that the demand for Ghana's exports also weakened due to the global economic downturn, while remittances, Foreign Direct Investment (FDI), and Overseas Development Assistance (ODA), and other foreign inflows into the country slowed, dampening consumption, investment, and economic activity. Several factors, therefore, contributed to the reduction in growth in 2009.

[5]See CEPA's Report on the State of the Ghanaian Economy in 2009

Whether continued disinflation could have permanent output and employment costs, however, is uncertain, especially because we seem to have entered a territory that has not been charted before in our history, i.e. bringing inflation down so quickly to such low levels. The historical evidence from Ghana's past would seem to suggest that periods of higher and more unstable inflation, such as 1979-1990, were associated with lower and more volatile growth than periods of lower and more stable inflation, such as 1991-2009. As Table 10 shows, the 1979-1990 period experienced average inflation of 46.0 percent with a standard deviation of 41.5 and average real GDP growth of 1.7 percent with standard deviation of 4.8 percent. Comparatively, the 1991-2009 period experienced average inflation of 22.3 percent with a standard deviation of 14.6 percent and average real GDP growth of 4.8 percent with a standard of deviation of 1.0 percent. Clearly, the more macroeconomically-stable period, 1991-2009, achieved better growth performance.

Table 9: Inflation and Real GDP Growth, 1979-2009

| Year | Inflation (Year-on Year)(%) | GDP Growth Rate (%) |
|---|---|---|
| 1979 | 18.3 | -3.8 |
| 1980 | 87.8 | -0.2 |
| 1981 | 100.4 | -3.2 |
| 1982 | 16.7 | -5.9 |
| 1983 | 142.4 | -4.1 |
| 1984 | 6.0 | 8.6 |
| 1985 | 19.5 | 5.1 |
| 1986 | 33.3 | 5.2 |
| 1987 | 34.2 | 4.8 |
| 1988 | 26.6 | 5.6 |
| 1989 | 30.5 | 5.1 |
| 1990 | 35.9 | 3.3 |
| 1991 | 10.3 | 5.3 |
| 1992 | 13.3 | 3.9 |
| 1993 | 27.7 | 5.0 |
| 1994 | 34.2 | 3.3 |
| 1995 | 70.8 | 4.0 |
| 1996 | 32.7 | 4.6 |
| 1997 | 20.8 | 4.2 |
| 1998 | 15.7 | 4.7 |
| 1999 | 13.8 | 4.4 |
| 2000 | 40.5 | 3.7 |
| 2001 | 21.3 | 4.2 |
| 2002 | 15.2 | 4.5 |

| | | |
|---|---|---|
| 2003 | 23.6 | 5.2 |
| 2004 | 11.8 | 5.6 |
| 2005 | 14.8 | 5.9 |
| 2006 | 10.9 | 6.4 |
| 2007 | 12.8 | 5.7 |
| 2008 | 18.1 | 7.2 |
| 2009 | 16.0 | 4.1 |
| | | |
| AVG | 31.4 | 3.6 |

Chart 8: Inflation, 1979-2009

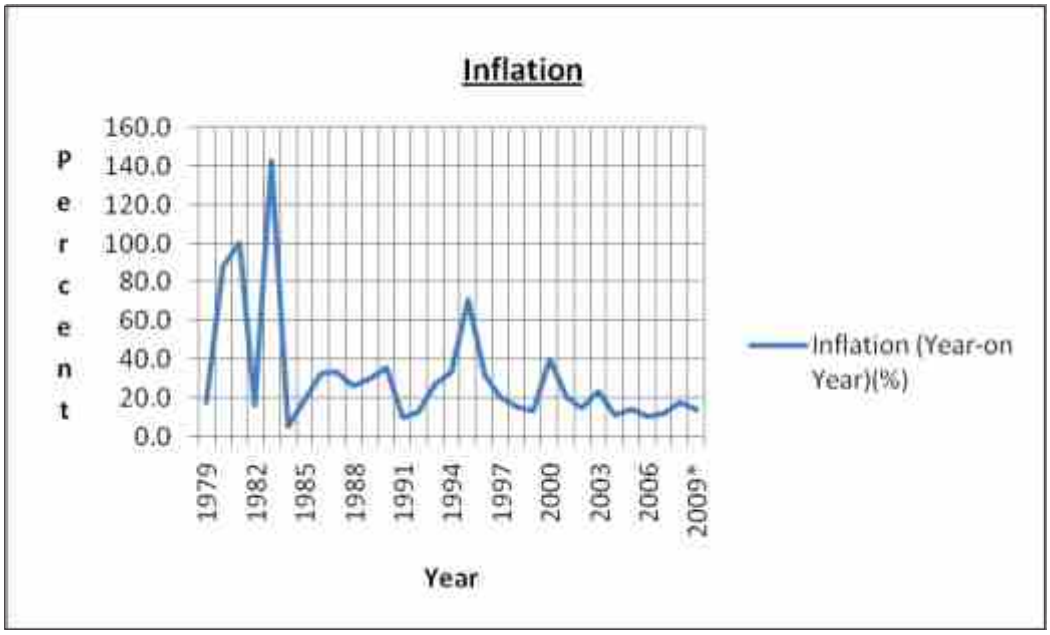



Chart 9: Real GDP Growth: 1979-2009

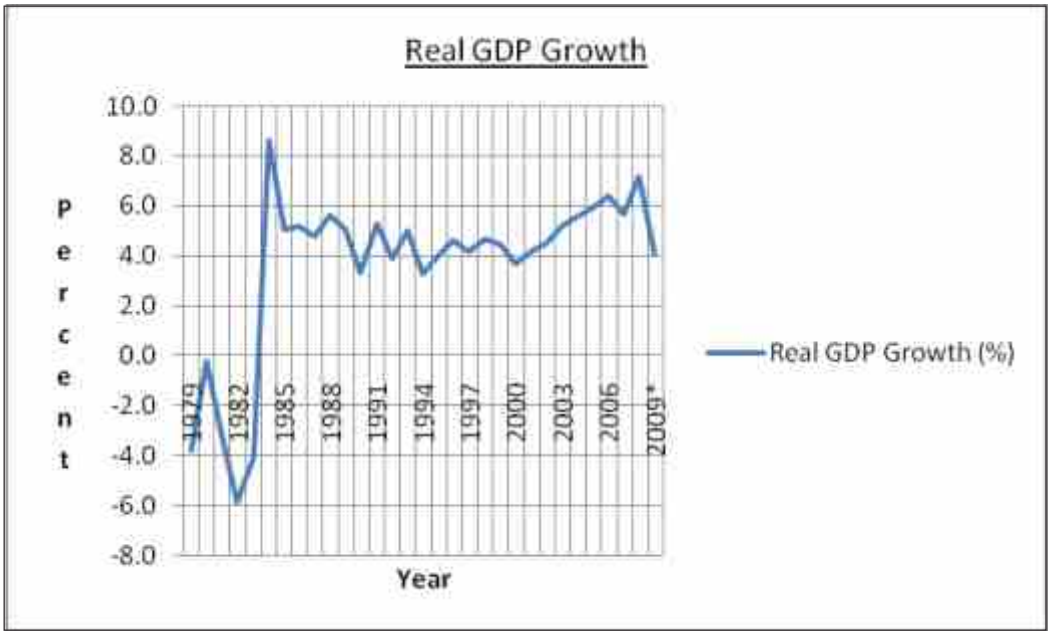


Chart 10: Inflation and Real GDP Growth, 1979-2009

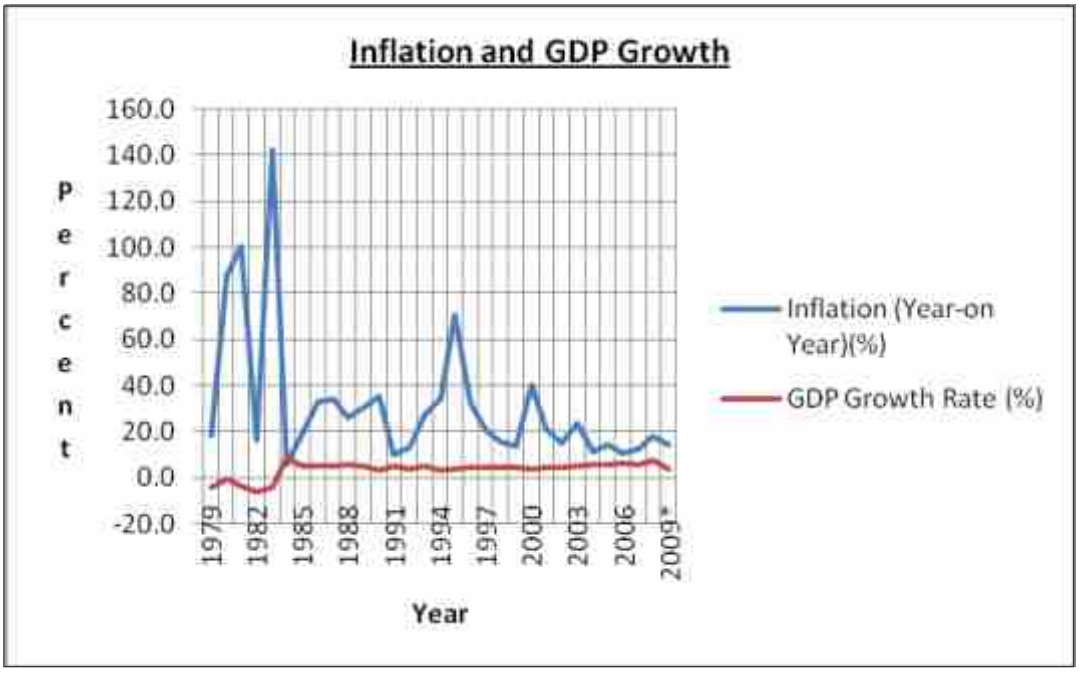



Table 10 a: Inflation and Real GDP Growth, 1979-1990

| Year | Inflation (Year-on Year)(%) | GDP Growth Rate (%) |
|---|---|---|
| 1979 | 18.3 | -3.8 |
| 1980 | 87.8 | -0.2 |
| 1981 | 100.4 | -3.2 |
| 1982 | 16.7 | -5.9 |
| 1983 | 142.4 | -4.1 |
| 1984 | 6.0 | 8.6 |
| 1985 | 19.5 | 5.1 |
| 1986 | 33.3 | 5.2 |
| 1987 | 34.2 | 4.8 |
| 1988 | 26.6 | 5.6 |
| 1989 | 30.5 | 5.1 |
| 1990 | 35.9 | 3.3 |
| | | |
| AVG | 46.0 | 1.7 |
| STDEV | 41.5 | 4.8 |

Table 10 b: Inflation and Real GDP Growth,1991-2009

| Year | Inflation (Year-on Year)(%) | GDP Growth Rate (%) |
|---|---|---|
| 1991 | 10.3 | 5.3 |
| 1992 | 13.3 | 3.9 |
| 1993 | 27.7 | 5.0 |
| 1994 | 34.2 | 3.3 |
| 1995 | 70.8 | 4.0 |
| 1996 | 32.7 | 4.6 |
| 1997 | 20.8 | 4.2 |

Ghana's past experience demonstrates that there is a positive association between macroeconomic stability and growth over the long term. This is not to deny, however, that there could be short-term costs to disinflation, especially if it is carried out rapidly and if it involves significant contraction of government expenditure and aggregate demand. As we have noted, inflation has been brought down recently to hitherto-uncharted territory and has been associated with austerity measures. Therefore, the disinflation could have contributed to the reduction in growth in 2009. Low single-digit inflation is being targeted over the medium-term horizon, despite the fact that government expenditure is projected to rise, with a further boost from oil revenue. The expected boost in government expenditure and in private demand will put pressure on inflation. If the low single-digit inflation targets are to be achieved, monetary policy will have to be extremely tight. Already the Governor of the Bank of Ghana has signaled the intention of the Bank to use its entire monetary policy arsenal to mitigate the potential inflationary impact of oil production and the Single Spine Salary Structure, among other pressures. That arsenal could involve interest rate hikes and currency appreciation, which could blunt the higher growth expected from expansionary fiscal policy.

# 5.0 Likely Course of Future Inflation

The greatest impact on future inflation is likely to emanate from oil production. In theory, oil production puts upward pressure on prices through the extra demand generated from the revenue that may not likely be matched by supply of goods and services because of production and supply constraints. The greatest source of demand pressure will be spending by government as the principal beneficiary of the revenue. The conduct of fiscal policy in the oil era will therefore be critical for the future course of inflation. A more aggressive fiscal policy geared to delivering an “oil dividend” to the population could put enormous pressure on prices. Oil revenue would certainly allow domestic output and the supply of imported goods to be increased, which would help dampen inflation pressure. Oil production is also likely to result in exchange rate appreciation as more foreign exchange becomes available to the economy. This would dampen the impact of import prices on domestic inflation. On the other hand, as recovery of the world economy takes hold, there is bound to be an uptick in global inflation, which would affect domestic prices through imports.

Inflation would also be affected by some cost pressures. Utility tariffs are likely to be increased periodically given the persisting gaps between providers' costs and tariffs. This would put pressure on inflation.[6] Another potential source of

[6]Of course, there is considerable room for the utility companies to improve their efficiency and reduce their costs and thereby ease the perennial pressure on tariffs.

| | | |
|---|---|---|
| 1998 | 15.7 | 4.7 |
| 1999 | 13.8 | 4.4 |
| 2000 | 40.5 | 3.7 |
| 2001 | 21.3 | 4.2 |
| 2002 | 15.2 | 4.5 |
| 2003 | 23.6 | 5.2 |
| 2004 | 11.8 | 5.6 |
| 2005 | 14.8 | 5.9 |
| 2006 | 10.9 | 6.4 |
| 2007 | 12.8 | 5.7 |
| 2008 | 18.1 | 7.2 |
| 2009 | 16.0 | 4.1 |
| | | |
| AVG | 22.3 | 4.8 |
| STDEV | 14.6 | 1.0 |

inflation pressure would be the Single-Spine Salary Structure whose effect on public sector pay is likely to spill over into the private sector. This will have both cost and demand effects on inflation, the former from increased costs to employers and the latter from increased incomes of employees. Food inflation has long had a significant influence on headline inflation, given its dominant weight in the CPI. It is difficult to predict the future course of food inflation given the uncertainties in food production and unpredictability of related shocks. But, unless significant improvements occur in food production, storage and marketing, food inflation will continue to feature prominently in overall inflation.

## 6.0 Conclusion

Ghana has been exceptionally prone to high rates of inflation, which could be attributed to the intractability of the causes, or ineffectiveness of inflation management, or both. Demand, driven by monetization of fiscal deficits has been a major cause of inflation in Ghana. Real or supply side factors have also contributed to Ghana's high rates of inflation, dominated by cyclical food inflation. Following the extensive deregulation of the economy since 1983, cost pressures emanating from rising petroleum and utility prices and exchange rate depreciation have played an increasing role in the inflationary process. As inflation became entrenched, expectations became embedded in wages, exchange rates, interest rates, and general prices, further fuelling inflation. We believe that the two critical requirements for sustaining low inflation in Ghana are to purge the economy of “fiscal dominance” and increase production of food and ensure its availability all year round.

Prior to 2007, monetary policy was conducted under a monetary targeting framework, whereby money supply was used as an intermediate path to targeting inflation. In the face of large-scale deficit financing, monetary policy was ineffective in achieving the inflation targets. Monetary policy was further

rendered more ineffective by the weakening of the link between money supply and inflation with financial and other structural changes in the economy. In 2007, the Bank of Ghana (BoG) adopted an IT framework that involves targeting inflation directly without using a monetary aggregate as an intermediate variable. To be effective however, it requires certain structural and policy conditions, including a sufficiently developed financial system, central bank autonomy, fiscal discipline and a flexible exchange rate regime. Further, there should be adequate and reliable data and a robust and comprehensive forecasting model. Ghana would appear to fall short in all these critical requirements. It is no wonder therefore that the BoG has continually missed its inflation targets, often by very wide margins. In that case, it is probably right to describe Ghana's IT as "IT-lite" rather than a full-fledged IT. In the meantime, the BoG's efforts could be channeled into providing its best forecast of inflation rather than aiming to achieve an ever-elusive point- or range-target, until conditions permit migration to a full-fledged IT.

In the past year, inflation has fallen consistently, reaching the oft-elusive single digit level since June 2010. In 2009, government expenditure declined in the effort to reduce the fiscal deficit that reached a record high in 2008. At the same time, the economy significantly slowed down and, while this occurred amid a slowdown of the global economy, some people have attributed it to the apparent fiscal austerity and too rapid disinflation. This school of thought has argued that there have been costly output and employment losses as a result of the economic retrenchment policies. The authorities have, however, rejected this assertion, arguing that government expenditure has been on course and that there has not been any attempt to "orchestrate" disinflation through fiscal retrenchment. Higher and more unstable inflation led to lower and more unstable growth in Ghana during 1979-90, whereas lower and more stable inflation led to higher and more stable growth during 1991-2009. This evidence seems to support the view that low and stable inflation is more beneficial to economic growth at least in the long run. Low single-digit inflation is being targeted over the medium-term horizon. The expected boost in government expenditure and in private demand from oil revenue and the Single Spine Salary Structure respectively—will put pressure on inflation. If the low single-digit inflation targets are to be achieved, monetary policy will have to be extremely tight—including through high interest rate and currency appreciation—which could dampen the projected higher growth.

The course of future inflation will be influenced by several factors, but the greatest impact will come from oil production. Oil revenue will generate strong demand for goods and services that is unlikely to be matched by supply because of production and supply constraints and lags, which will fuel inflation. On the other hand, oil revenue is likely to strengthen the exchange rate, which will dampen the impact of import prices on domestic prices. The Single Spine Salary Structure will exert both demand and cost pressures on inflation by respectively boosting employees' incomes and increasing employers' costs. Utility tariffs are likely to go up periodically, given persisting gaps between

providers' costs and tariffs, and this will exert pressure on inflation. Food prices will continue to be an important factor in the course of future inflation, given prevailing bottlenecks in production, storage, and marketing that are unlikely to be overcome anytime soon.[7]

[7]Recent food supply trends have been very encouraging and have been a key driver of declining inflation. Should this trend be sustained, and should food prices decline substantially, the impact on inflation could be phenomenal.

# References

Ahmad, N., 1970, Deficit Financing, Inflation, and Capital Formation: The Ghanaian Experience, 1960-65, Munic Welferun Verlag.

Argy, V., 1970, "Structural Inflation in Developing Countries," Oxford Economic Papers, Vol. 22, No.1.

Cagan, P., "The Monetary Dynamics of Hyperinflations," Studies in the Quantity Theory of Money, (ed.) M. Friedman, University of Chicago Press.

Ewusi, K., 1977 (Dec.), The Determinants of Price Fluctuations in Ghana, ISSER Discussion Paper, University of Ghana, Legon.

Heberger, A.C., 1963, "The Dynamics of Inflation in Chile," Measurements in Economics, (ed.) C.F. Christ, Stanford University Press.

Kwakye, J. K., 1999, "The Macroeconomics of Rapid and Sustainable Growth," ISSER Millennium Seminar Series.

Kwakye, J. K., 1999, "Some Perspectives on Macroeconomic Developments in Ghana in the Nineties," mimeo, Research Department, Bank of Ghana.

Kwakye, J. K., 1981, An Econometric Analysis of Price Behaviour in Ghana, MSc Thesis, University of Ghana.

Lewis, W.A., 1955, The Theory of Economic Growth, Allen and Unwin, London.

Sowa, N. K., and J. K. Kwakye, 1993, Inflationary Trends and Control in Ghana, African Economic Research Consortium (AERC) Research Paper 22, Nairobi, Kenya.

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