Once more unto the breach: Should South Africa abandon its inflation targeting regime?

Kristoff Potgieter is currently completing dual masters degrees at the University of Cape Town in Applied Economics and the Barcelona Graduate School of Economics in International Trade, Finance and Development. Prior to this he completed degrees at the University of Pretoria (BCom Econometrics) and the University of Cape Town (BCom hons Economics first class). He was the first runner up in the 2009 Nedbank Old Mutual Budgetspeech competition and has been awarded student scholarships from both Economics Research South Africa and the Oppenheimer Memorial Trust.

The failure of several government initiatives at addressing unemployment and promoting economic prosperity, since the inception of democracy in South Africa, has led to a vigorous public debate over the appropriateness of various government policies. The South African Reserve Bank's Inflation Targeting (IT) regime has been no exception, with several factions, calling for its abandonment. Despite these pressures, at the time of writing, Finance Minister Pravin Gordhan had held fast by tabling no changes to SA's IT framework in the 2010 budget speech, unleashing another round of critiques[1].

With this in mind, the question of whether inflation targeting is the right monetary policy regime for South Africa can be addressed. This article will start by questioning the fundamental role of monetary policy in modern economies and how an inflation targeting regime can help fulfill that role. The challenges and alternatives to inflation targeting will then be assessed in the context of South Africa's status as an emerging-market economy. It will be argued that, while inflation targeting is not a cost-free policy, it remains the best option available to constrain inflation and maintain macroeconomic stability in South Africa.

The Role of Monetary Policy: Why Target Inflation?

In his study on the role of monetary policy, Friedman[2] suggests that monetary policy's use of *nominal* instruments fundamentally limits its long-term effect on *real* economic variables such as growth, employment or the real interest rate. Instead, Friedman suggests, monetary policy should focus on creating a stable macroeconomic environment. This should be done to stop money itself from becoming a source of economic difficulty through the disruptive effects of inflation.

High inflation has detrimental effects on the real economy as it leads to distorted information, economic inefficiencies and erodes consumer wealth. Fischer[3] shows that inflation has a persistent negative effect on a nation's long-run growth with causality running from macroeconomic policy to growth. Easterly and Fischer[4] also show that inflation tends to exacerbate inequality within societies. This is as the poor, who hold most of their wealth in cash, lack access to advanced financial instruments which act as protection against inflation for the rich. That is to say, high levels of inflation act as a particularly pernicious and regressive form of taxation on the wealth of a populace. Given the high levels of inequality and poverty within South Africa, this effect should be of particular concern to policy makers.

Countries which wish to maximise growth and limit inequality should, therefore, coordinate their macroeconomic policies to actively limit inflation. In line with this view the South African Reserve Bank (SARB) has been given a constitutional mandate to protect the value of the national currency[5]. Consequently, the SARB should aim to minimise the macroeconomic instability and uncertainty inflation causes.

Inflation Targeting as a Monetary Policy Regime

As with all policy decisions, electing how to address macroeconomic stability comes with certain trade-offs. The so-called, macroeconomic policy 'trilemma' states that given the policy goals of monetary independence, exchange rate stability and full financial integration choosing any two goals would eliminate the possibility of choosing the third[6]. Given that South Africa relies on foreign investment to maintain its current account surplus it is unlikely to abandon financial integration with the rest of the world. This leaves policymakers with one of two choices: they can focus on stabilising the exchange rate by 'pegging' their currency, thereby abandoning independent monetary policy. Alternatively, South Africa can adopt an independent monetary policy such as inflation targeting, allowing market forces to determine the exchange rate.

An inflation targeting regime can be described as one whose main objective is to keep prices, as measured by some price index, stable[7]. In 2000 the SARB adopted an inflation targeting regime as the core of its monetary policy by setting its long term goal for CPIX (consumer price inflation less mortgage payments) in the band 3-5%, this band was later widened to 6%. Towards this end, the primary policy instrument used is the *repo* rate, which has an indirect impact on inflation through its effect on the demand for loanable funds[8]. To ensure the success of inflation targeting the SARB also adopted certain policy features found in all 'true' inflation targeting regimes (see table 1).

Table 1: Features of Inflation Targeting Regimes

FEATURE	REASON	EFFECT ON SARB POLICY
Clear Inflation Targets.	Helps anchor the expected inflation rate.	CPIX inflation target set between 3-6%.
Increased transparency and accountability.	Helps avoid time inconsistency in monetary policy and helps keep the public informed.	Clear target sets an explicit benchmark. Regular monetary policy forums and publications allow for transparency.
Periodic reassessments of policy based on updated forecasts.	The effect of monetary policy on the economy has a lag. Clear forecasts help adapt policy and achieve targets.	Forecasted inflation models of the reserve bank are continually updated. Policy is adjusted accordingly.
High levels of discretion when setting Monetary policy.	Helps to ease the effect of external shocks on the economy and avoid radical shifts in monetary policy.	The implementation of explanation clauses and lengthening of target horizons.
Autonomous central bank, especially instrument independence.	To avoid political interference in monetary policy.	No goal independence but instrument independence through the repo rate.

Source: Jonsson (1999), SARB (2002), Kydland and Prescott (1977), Lucas & Sargent (1981)

Table 1 expands on policy features which enhance the success of inflation targeting regimes and which have been followed by the SARB. The first two policy features suggest a radical shift towards openness amongst central banks. The basis for this shift is twofold:

First, the work of Lucas & Sargent[9] showed that credible commitment to a specific inflation rate would lead rational expectations to conform to that rate. This in turn would help stabilise the macroeconomic environment. Secondly, Kydland and Prescott[10] showed that in the absence of a clear commitment, central banks would have incentive to run 'time inconsistent' monetary policy by promising stable prices while simultaneously running an expansionary monetary policy to lower unemployment.

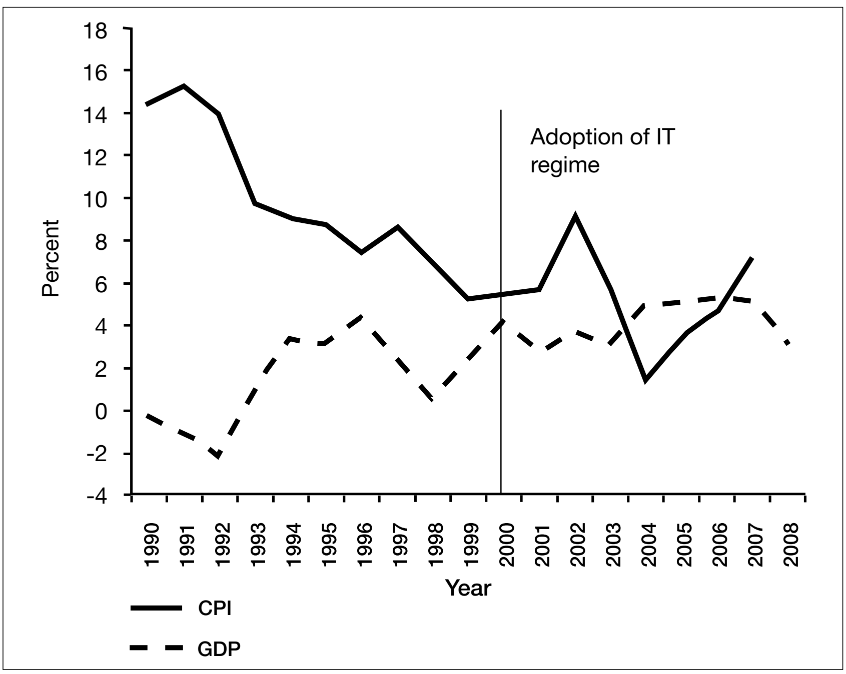
Rogoff showed that such an independent conservative central banker could effectively decrease inflationary bias by placing a greater weight on inflation-stabilisation, as opposed to employment stabilisation, than the rest of society.

The latter three features secure central bank independence, freeing central banks from having to make policy shifts due to political pressure and allowing them to use their discretion in running a conservative monetary policy. Rogoff[11] showed that such an independent conservative central banker could effectively decrease inflationary bias by placing a greater weight on inflation-stabilisation, as opposed to employment stabilisation, than the rest of society. Alesina and Summers[12] go on to show an empirical negative relationship between central bank independence and inflation.

The Bumpy Road to Stability: Inflation Targeting in South Africa

To see whether or not inflation targeting has been successful, we can consider the effect it has had on macroeconomic stability through variables such as real GDP growth and inflation[13].

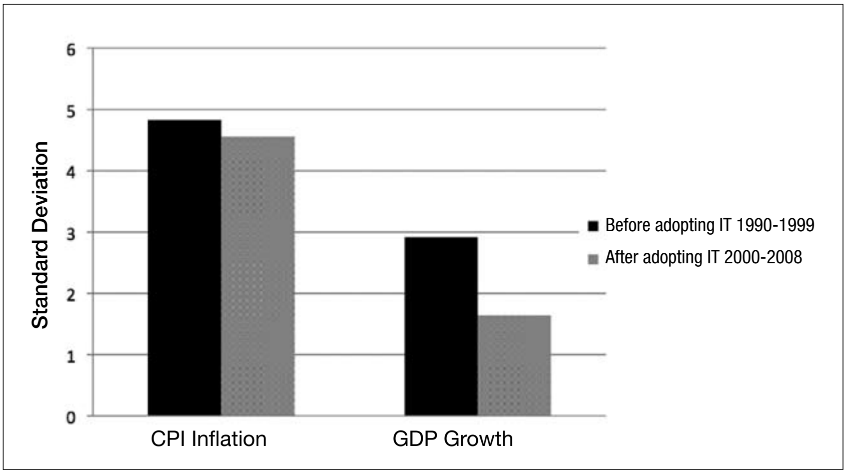
Figure 1: GDP Growth and CPI inflation in South Africa 1990-2008



Source: SARB (2009)

Figure 1 suggests that the ten year period before inflation targeting showed lower growth and higher inflation than the period after. On average growth during the 2000s increased to 4.10% from 1.61 % during the 1990s, CPI inflation is found to have decreased from an average of 9.51% to 6.44% over the same period[14].

Figure 2 Volatility in GDP Growth and CPI Inflation



Source: SARB (2009)

Figure 2 suggests both inflation and growth volatility have declined after the inception of inflation targeting. Although the decline in CPI volatility is rather meagre (from 4.83% to 4.55%) output volatility made a much more impressive decline from 2.91% to 1.64%[15]. There may be an argument that some, if not all, of these effects have been due to exogenous variables such as a prudent fiscal policy, or a better domestic investment climate. Nonetheless, it can be seen that the implementation of IT has not had any observable negative effect on macroeconomic stability and growth. The more pertinent question, therefore, is not whether the effect of inflation targeting has been positive or negative, but rather; why has the positive effect been relatively limited?

The small size and lack of diversity in the South African economy leaves it more susceptible to external shocks and low investor confidence.

Ricci[16] suggests that the success of inflation targeting in the South African economy has to be considered in the context of South Africa's emerging market status. The small size and lack of diversity in the South African economy leaves it more susceptible to external shocks and low investor confidence. These external shocks, such as dramatic increases in global food and oil prices, have dire effects on the balance of the current and the capital accounts and can lead to volatile capital flows, amplifying the negative effects on the South African economy. Consequently, the implementation of a successful inflation targeting regime is significantly more difficult in SA than in most developed nations.

In his study on inflation targeting in emerging economies Mishkin[17] raises four other possible challenges to operating an inflation targeting regime in an emerging market:

- *Excessive Autonomy*
  The high level of central bank autonomy associated with inflation targeting may lead to excessively rigid policy or possibly an increase of output instability. Such fears do not apply to the SARB which has used discretion to practice a conservative and prudent monetary policy.

- *Weak Accountability*
  Inflation is generally thought to be hard to control, especially in emerging markets which can be dramatically affected by external shocks. Periods of high inflation are likely to lead to a re-evaluation of targets and forecasts which

may have disastrous effects on the credibility of a central bank. As mentioned earlier, the SARB has implemented steps to enforce greater transparency and accountability within that institution.

- *Fear of Floating*
  As has been discussed, inflation targeting tends to necessitate a floating exchange rate regime. Emerging markets, which face volatile capital flows, large stocks of foreign currency and high levels of dollar denominated debt, may be justifiably hesitant in allowing their exchange rate to float. In these instances, nations may choose to manage their exchange rate causing the exchange rate to be viewed as the nominal anchor of policy as opposed to the inflation rate. The volatility of the South African rand along with the relatively low level of dollar denominated debt in South Africa suggests that this concern is unfounded.

- *Level of Fiscal Dominance*
  Consistently large fiscal deficits are not compatible with an inflation targeting regime. Countries which run both will eventually have to abandon its inflation targets by monetising its debt to avoid default. Similarly, sound financial systems are a prerequisite for an effective inflation targeting regime. Emerging economies which wish to employ an inflation targeting regime will, therefore, need to make certain that they maintain fiscal responsibility and comprehensive financial regulation. South Africa however, has a proven track record for both the prudency of its fiscal policy and the stability of its financial institutions. While the current projected government deficit may be cause for concern in normal circumstances, it is an adequate response in the current economic climate.

  South Africa's status as an emerging economy has not, however, been the only impediment to the successful implementation of inflation targeting. Du Plessis (2005) raises several active institutional barriers which are incoherent with the implementation of a successful inflation targeting policy including:

- *Un-indexed Capital Gains Tax*
  Given that Treasury sets South Africa's inflation target, it may have an incentive to run inflationary policy to accrue the additional revenue in taxation on the increased nominal value of assets.

- *Target Inconsistent Government Administered Prices.*
  While government sets the inflation targets it also flagrantly breaks them by increasing the prices of goods distributed through government owned enterprises by more than the target.

- *Centralised Wage Bargaining*
  By raising wages above gains in productivity and limiting the effective transmission of wage and price mechanisms through the economy, centralised wage bargaining further limits the success of inflation targeting.

- *Necessary Policy Reforms*
  Du Plessis[18] also suggests certain reforms in Reserve Bank policy would increase the effectiveness of inflation targeting by increasing the transparency of monetary policy. These reforms include distinguishing between the forward looking and backward looking dimensions of inflation targeting in communications, and publishing detailed conditional forecasts and expected paths of policy instruments.

Some, if not all, of these policies can be best understood as part of the macroeconomic environment of South Africa. That is to say, they have been implemented to address other goals than that of low inflation and macroeconomic stability. As such, they should not necessarily be scrapped in favour of a dogmatic quest for low inflation. Nonetheless, they illustrate some additional constraints policy makers face in attaining low inflation in South Africa.

Possible Alternatives to Inflation Targeting

Monetary policy is widely considered to have three possible policy regimes: price stability, growth in the money supply (so called M3 targeting) or exchange rate stability (Friedman, 1968). The latter two of these policy regimes have been proposed for South Africa, by various groups in civil society, based on the success certain Asians nations, such as China, have had with such policies. Both possibilities will now be considered in more depth.

M3 Targeting

M3 targeting formed the core of the SARB monetary policy up until the mid 1990s. Ultimately, the M3 targeting policy was abandoned due to the seemingly unstable and uncertain relationship between money supply and aggregate prices. New evidence suggests that the relationship between M3 and inflation was probably undermined by the relatively high growth rates and short term interest rates in the 1990s[19]. This being said, inflation targeting remains generally preferable to M3 targeting due to its more comprehensive approach to inflation. Furthermore, returning to an M3 targeting policy will raise serious credibility concerns, given the policy's historical failure in South Africa[20]. As a final caveat, re-implementing M3 targeting will likely fail in the presence of open capital markets where the money supply may be subject to unexpected and drastic changes.

Exchange Rate Targeting

A competitive exchange rate can be an integral part of the development of competitive non-traditional export industries[21]. For this reason, a number of developing nations have chosen to fix or 'peg' their exchange rate to some foreign countries while simultaneously maintaining open capital markets, effectively importing a foreign monetary policy. The question as to whether it would be preferable for South Africa to abandon inflation targeting, and target a stable exchange rate instead, has also recently been raised both by Investec's Michael Power and more recently by COSATU. COSATU´s grievance is that inflation targeting has damaged South African exporting industries. They base their argument on the fact that inflation targeting has caused an "overvalued currency … a consequence of the significant inflow of capital; attracted by relatively high interest rates"[22]. More recently, COSATU has also suggested that the SARB should go so far as to peg the rand to the US dollar at a more competitive rate.

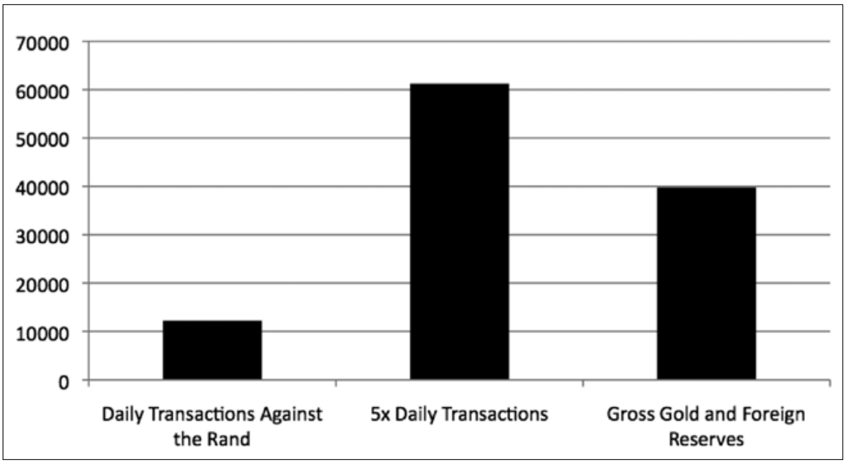
The question as to whether it would be preferable for South Africa to abandon inflation targeting, and target a stable exchange rate instead, has also recently been raised both by Investec´s Michael Power and more recently by COSATU.

This argument raises immediate questions: If COSATU sees an inflow of foreign capital as negative, how would they plan to fund the investment necessary for growth in South Africa? This challenge would be rendered near impossible by South Africa's low savings rate[23]. Similarly, any policy which aims to limit foreign capital inflows, by any means, will limit South Africa's ability to fund its current account deficit. Foreign investment is generally considered positive for growth and several "fast developing" countries have actively courted FDI in the past (COGAD, 2008). Additionally, current economic conditions have added significant uncertainty over the future valuations of both the US dollar and the Euro, making it near impossible to determine the optimal adjustments to any pegged value of these currencies at any given time. Without such adjustment, governments invite speculative attacks and possible crises[24].

Governments which choose to 'peg' the exchange rate continue to face the macroeconomic policy 'trilemma' and must, therefore, ultimately choose between abandoning open capital markets or independent monetary policy. In policy terms, this choice can be simplified as restricting capital flows and enacting sterilised intervention in exchange markets, thereby abandoning open capital markets, or adjusting the domestic interest rate in response to movements in the exchange rate, thereby abandoning monetary policy independence. Hence, even if the SARB could maintain some form of stable crawling peg along with the underlying 'shadow price' of the dollar, while simultaneously keeping the capital account open it could do so only by introducing significant volatility to the domestic interest rate with associated internal economic volatility.

An alternate approach to optimal exchange rate policies would see exchange volatility as a major barrier to growth. It is reasoned that, since a floating exchange regime can be quite volatile, monetary policy should stabilise variations in the exchange rate. However, this approach does not address the underlying cause of exchange volatility[25]. If exchange volatility is based on underlying real economic factors, implementing exchange stability will come at the price of real economic volatility. Alternatively, if economic expectations are the source of exchange rate volatility stabilising the exchange rate will cause interest rate instability as speculation takes hold. Akinboade *et al*[26] suggest that 'middle path' exchange rate regimes are unlikely to be successful in South Africa given its relatively small foreign currency and gold reserves and the high daily trading volumes of the rand (see Figure 3).

Figure 3: Trade Against the South African Rand and Gross Gold and Foreign Reserves as at October 2009 (US$ Millions)



Source: SARB 2010

Finally, the foreign exchange market distortions caused by adapting an inflexible exchange rate regime have been shown to have a negative effect on long run growth[27]. It is for these reasons that only a flexible exchange rate regime, with limited government intervention, is currently sustainable in South Africa.

Another criticism made against inflation targeting by COSATU is that IT "has contributed directly to slowing down the rate of economic growth and thus of job creation and poverty alleviation".

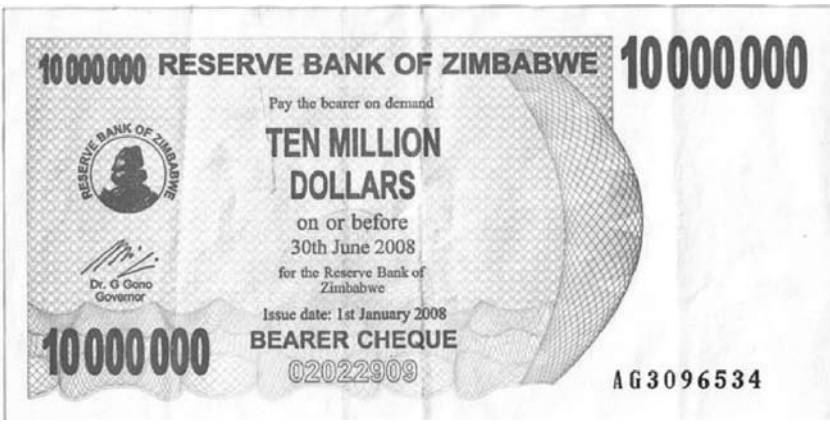
Is inflation driven growth possible?

Another criticism made against inflation targeting by COSATU is that IT "has contributed directly to slowing down the rate of economic growth and thus of job creation and poverty alleviation"[28]. COSATU's argument is that the SARB should run an expansionary monetary policy, allowing inflation to increase in order for unemployment to decline. Theoretically, this trade off between inflation and unemployment or growth implies a reiteration of the widely discredited Phillips curve effect[29]. Akinboade *et al*[30] also suggest that the structural nature of South African inflation is likely to make any inflation targeting regime slow and costly in terms of output and employment. However, COSATU's argument is flawed on two levels:

While there does seem to be a relationship between short term inflation and output in South Africa, no such relationship exists between inflation and unemployment[31]. Instead South Africa's unemployment rate is unresponsive to both inflation and growth due to the structural inflexibility of its labour market[32].

The second flaw in COSATU's argument relates more to what an expansionary monetary policy aimed at unemployment will, in fact, achieve. As Friedman[33] explains, the short-term increase in output, associated with inflation, is not related to real economic capacity, but rather to the unexpected change in prices. Targeting output through monetary policy will therefore mean running an ever more expansionary monetary policy, creating an effective inflation spiral. This does not amount to some untried hypothesis. Several states, including one from the SADC, have in the past attempted to alleviate long term growth and fiscal constraints through the use of lax monetary policy. Simply printing money, will not lead to long term economic prosperity, as Figure 4 suggests.

Figure 4: $Z10 000 000 Note Circa 2008



Source: Zimbabwe Reserve Bank, 2008

If policy makers wish to decrease unemployment in a stable and sustainable way, the determinants of the non-accelerating inflation rate of unemployment (NAIRU), such as the structural mobility and the education of the labour force, need to be addressed. While the effect inflation targeting has on growth and employment should not be ignored, this effect is trivial when compared to other more prominent barriers to employment creation in South Africa. COSATU's unwillingness to address the policies they support, such as rigid labour market conditions, which do in fact limit employment creation, suggests that IT has been singled out not as a true cause of low growth in South Africa, but rather, as a political red herring with which to appease the demands of their members.

COSATU's unwillingness to address the policies they support, such as rigid labour market conditions, which do in fact limit employment creation, suggests that IT has been singled out not as a true cause of low growth in South Africa, but rather, as a political red herring with which to appease the demands of their members.

The False Promises of Inflation Denailists: The Views of Epstein and Stiglitz

John Maynard Keynes once suggested that "the ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is generally understood. Indeed, the world is ruled by little else"[34]. Consequently, the views of a small but vocal group of economists, who suggest developing nations should abandon inflation targeting, need to be seriously addressed. Most prominent amongst these so-called "inflation denailists", are Epstein[35] and Nobel Laureate Joseph Stiglitz[36]. As will be shown, the arguments they propose suggest a misunderstanding of the role of monetary policy and the policy associated with IT respectively.

The approach suggested by Epstein[37] is that monetary policy should adapt a real targets approach, by focusing on real economic variables such as growth or employment. In his view central banks will have two goals, namely reaching their 'real target' and remaining within some 'inflation constraint'. In Epstein's view, central banks have been blinded to the possibility of such a policy by the strict adherence to achieving their inflation targets. History, however, does not support this view. Rather, central banks such as the Bank of England and the Federal Reserve attempted, unsuccessfully, to target both inflation and growth during the 1970s. The consequence was exessive volatility in both indicators, accompanied by periods of stagflation[38]. To reiterate, the idea that monetary policy can successfully affect real economic variables in the long run has been tried, tested and found to be wanting.

A second claim made by Epstein is that moderate levels of inflation are not inimical to economic growth. Nations should therefore adjust their inflation target upwards to around 20% to facilitate higher growth[39]. What Epstein neglects to mention is that the payoff associated with this higher level of inflation is a consequence of unexpected inflation only. Once expectations have adjusted to the new 'normal' inflation rate, whether that be 3% or 20%, external economic shocks will affect the economy in *exactly* the same way as before. That is to say, once market expectations adjust there will be *no benefit* to higher inflation. Instead, the negative effect of inflation on the poor, who have the dubious honour of seeing their wealth constantly eroded by inflation, will simply be accelerated. This is likely to be especially true amongst those employed in the informal sector, who do not have access to bargaining councils to index their wages.

This provision allows central banks to run a more lax monetary policy when times of economic hardship are accompanied by external price shocks. Stiglitz also fails to take into account that monetary policy does in fact have an effect on the price of imported goods, albeit an indirect one.

An alternate view on the IT debate, as proposed by Stiglitz[40], is that inflation targeting should be abandoned due its inability to deal with price rises brought on by external shocks such as oil and food price rises. Instead, Stiglitz suggests, that employing higher interest rates in response to external shocks will simply create negative growth consequences in the domestic economy without any effect on price levels.

What this view fails to address is the fact that IT makes explicit provision for high levels of discretion amongst those setting monetary policy (see Table 1). Hence, the SARB does not adhere blindly to some form of 'Taylor rule' policy implementation, whereby interest rates automatically adjust in response to inflation. Instead, policy is set using both forecasts of future inflation and the state of the economy. This provision allows central banks to run a more lax monetary policy when times of economic hardship are accompanied by external price shocks. Stiglitz also fails to take into account that monetary policy does in fact have an effect on the price of imported goods, albeit an indirect one. This can be understood through the positive effect increasing the interest rate will have on the value of the domestic currency. Once the currency has strengthened the domestic prices of goods, which are priced on international markets, such as oil and food, will decrease.

Concluding Remarks

The path to hell, it is said, is lined with good intentions. Similarly COSATU's belief that, "all policies should be judged by how far they help to create and preserve jobs and to reduce poverty"[41], has caused it to myopically label inflation targeting as 'bad for growth'. The claim, that inflation targeting has limited employment creation, is tenuous at best and at worst, simply ignores the true determinants of unemployment in SA.

Moreover, the only realistic alternatives to inflation targeting, namely M3 targeting or 'pegging' the exchange rate, are unlikely to be successful in South Africa for reasons of practicality and stability. Indeed, even more 'moderate' interventions in the exchange markets are unlikely to be unsustainable in the South African economic climate.

While by no means a perfect system, the transparency and clear targets of inflation targeting means that it remains the best possible policy with which to stabilise inflation and the macroeconomic environment and, thereby, promote growth in South Africa.

NOTES

1 See SA Treasury 2010; COSATU 2010
2 1968
3 2003
4 2001
5 SARB, 2002
6 Obstfeld & Taylor, 2004
7 Svensson, 2008
8 SARB, 2002
9 1981
10 1977
11 1985
12 1993
13 Johnson, 1999
14 SARB, 2009
15 SARB, 2009
16 2005
17 2000
18 2005
19 Ricci, 2005
20 Akinboade et al, 2002
21 Balassa, 1982
22 COSATU, 2007:1
23 Aron and Muellbauer, 2000
24 Broner, 2008
25 Williamson (2003)
26 2002
27 Fischer,1993
28 COSATU, 2007:1
29 Goodfriend, 2007
30 2002
31 Hodge, 2002
32 Barker, 1999
33 1968
34 Keynes,1936:351
35 2003,2008
36 2008
37 2003
38 Goodfriend, 2007
39 Epstein, 2003
40 2008
41 COSATU, 2007

REFERENCES

Akinboade, O. A., Niedermeier, E.W. and Siebrits, F. K. 2002. The Dynamics of Inflation Targeting in South Africa: Implications for Policy. South African Journal of Economics, 70(3): 462-485.

Alesina, A. and Summers, L. H. 1993. Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence. Journal of Money Credit and Banking, 25: 151-162.

Aron, J. & Muellbauer, J. 2000. Personal and Corporate Saving in South Africa. The World Bank Economic Review, 14(3): 509-544.

Balassa, B. and Associates. 1982. Development Strategies in Semi-industrial Economies. Baltimore: Johns Hopkins University Press for the World Bank.

Barker, F.S. 1999. On South African labour policies. South African Journal of Economics, 67(1): 1-33.

Broner, F. 2008. "Discrete Devaluations and Multiple Equilibria in a First-Generation Model of Currency Crises," Journal of Monetary Economics 55, 592-605.

Commission on Growth and Development (COGAD). 2008. The Growth Report: Strategies for Sustained Growth and Inclusive Development.

[Online] Available: www.treasury.go.za/comm_media/press/2008/growth

Accessed: 11 March 2009

Congress of South African Trade Unions (COSATU). 2007. COSATU statement on interest rates 10-09-07.

[Online] Available: http://www.cosatu.org.za/press/2007/oct/press21.htm

Accessed: 5 March 2009

Du Plessis, S. A. 2005. Proposals for Strengthening the SARB's Inflation Targeting Regime. South African Journal of Economics, 73(1): 337-354.

Easterly W. and Fischer S. 2001. Inflation and the Poor. Journal of Money Credit and Banking, 33(2):160-178.

EPSTEIN, G., 2003. Alternatives to inflation targeting monetary policy for stable and egalitarian growth – a brief research summary. Political Economy Research Institute Working Paper Series no. 62.

EPSTEIN, G., 2008. An employment targeting framework for central bank policy in South Africa. International Review of Applied Economics 22(2): 243 – 258.

Fischer, S. 1993. The Role of Macroeconomic factors in growth. Journal of Monetary Economics, 32(3): 485-512.

Friedman, M. 1953. Essays in Positive Economics. Chicago: University of Chicago Press.

Friedman, M. 1968. The Role of Monetary Policy. The American Economic Review, 58(1):1-17.

Frankel, J. A. 1999. No Single Currency Regime is Right for All Countries at All Times. NBER Working Paper 7338.

Goodfriend, M. 2007. How the world achieved Consensus on Monetary Policy. Journal of Economic Perspectives, 24(1):47-68.

Hodge, D. 2002. Inflation Versus Unemployment in South Africa: Is There a Trade-Off? South African Journal of Economics, 70(3):418-433.

http://www.fin24.com/Economy/Suicide-to-peg-rand-to-dollar-20100924

Jonsson, G. 1999. The Relative merits and Implications of Inflation Targeting for South Africa.

World Bank Working Paper.

Kydland, F. E. and Prescott E. C. 1977. Rules Rather than Discretion: The Inconsistency of Optimal Plans. Journal of Political Economy, 85(3): 473-91.

Lucas, R.E. and Sargent, T.J. 1981. Rational Expectations and Econometric Practice. Minneapolis: University of Minnesota Press.

Mishkin, S. 2000. Inflation Targeting in Emerging Market Countries. NBER Working Paper 7618.

Mundell, R. A. 1968. International Economics. New York: Macmillan.

Obstfeld, M. and Taylor, M. 2004. Global Capital Markets: Integration, Crisis and Growth. Cambridge University Press, 2004.

Ricci, L. A. 2005. Bringing Inflation Under Control. In: Ricci, L.A. and Nowak M. (Eds.) Post-Apartheid South Africa: The First Ten Years. The International Monetary Fund:189-210.

Rogoff, K. 1985. The Optimal Degree of Commitment to an Intermediate Monetary Target. Quarterly Journal of Economics, 100(4): 1169-1190.

Svensson, L. E. O. 2008. Inflation Targeting. In: Durlauf, S. N. & Blume, L. E. (Eds.) The New Palgrave Dictionary of Economics 2nd Edition. Palgrave Macmillan.

South African Press Association. 2010.´Suicide´ to peg rand to dollar¨ Available [Online]: http://www.fin24.com/Economy/Suicide-to-peg-rand-to-dollar-20100924

South African Reserve Bank (SARB). 2002. The Objectives and Importance of Inflation Targeting.

[Online] Available: www.reservebank.co.za

Accessed: 28 February 2009

South African Reserve Bank (SARB). 2009. Online Data.

[Online] Available: www.reservebank.co.za

Accessed: 19 February 2010

Stiglitz, J. E. 2008. "The Failure of Inflation Targeting".

[Online] Available: http://www.project-syndicate.org/commentary/stiglitz99.

Accessed 4 May 2009.

Williamson, John. 2003. Exchange Rate Policy and Development. Initiative for Policy Dialogue Working Paper.

Williamson, J. 1971. On the Normative Theory of Balance of Payments Adjustment. In: G. Clayton, J.C. Gilbert, and R. Sedgwick, (Eds.), Monetary Theory and Monetary Policy in the 1970s. Oxford: Oxford University Press.

SAPA. 2010. Suicide' to peg rand to dollar¨ Available [Online]: http://www.fin24.com/Economy/Suicide-to-peg-rand-to-dollar-20100924