INFLATION TARGETING: AN UNRECOGNISED DILEMMA FOR SOUTH AFRICA

by

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Submitted in partial fulfilment of the requirements for the degree

MASTER OF COMMERCE

in the subject

ECONOMICS

in the

FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES

at the

RAND AFRIKAANS UNIVERSITY

STUDY LEADERS: PROFESSOR J.H. MEIJER AND PROFESSOR L GRYLING

JUNE 2000

FOREWORD

Internationally, Inflation Targeting has become increasingly popular as a monetary policy framework. The move towards this new approach is primarily a consequence of problems and inadequacies of other monetary policy frameworks. The appointment of a new Governor at the South African Reserve Bank in August 1999 brought with it, soon afterwards, an announcement of a move to formal Inflation Targeting. In line with the trend towards Inflation Targeting, which began in the 90's, South Africa has abandoned its previous 'eclectic' monetary policy in favour of this new approach.

There appears, however, to be a lack of understanding among the South African public of the intricacies and implications of Inflation Targeting, which may mainly be due to its "newness". This paper, therefore, seeks to move beyond the usual "conservative" stance on the analysis of South Africa's introduction of Inflation Targeting, which, it is suggested, has generally tended to be of too superficial a nature. This thesis attempts, rather boldly, to tackle and analyse the *dilemma* of Inflation Targeting in South Africa, and to do so from a holistic perspective. It is important to note that South Africa, as a result of its unique characteristics, which have been informed largely by its history, has a unique status that differentiates it from other developing and developed economies that have recently adopted the Inflation Targeting framework.

In recent years, South Africa has undergone major social, political, cultural, ideological and economic transformations. Such drastic transformations have posed several challenges for South Africa and complicate the straightforward or textbook adoption of Inflation Targeting.

Branded an emerging market, the country falls victim to fickle investors using general emerging market strategies in their country evaluation. The impact of this, as it pertains to Inflation Targeting, is that the resulting volatility in our exchange and interest rates makes the adoption of this approach more complex. This, in turn, affects inflation itself and impacts on the controllability of inflation by the monetary authorities – a factor that is vital to the successful use of the framework.

As monetary policy has moved into a new era, with the changing of the guard (the new Reserve Bank Governor and new policies), stakeholders wrestle with issues that the new system has borne. Like anything new, the new system has been received with much uncertainty. The rigidity

of Inflation Targeting has, as this paper seeks to highlight, been perceived as lacking the more all-encompassing focus of the previous 'regime'. Inflation Targeting, by its very nature, has only one focal point, thus turning a blind eye to other factors that are believed to be of equivalent importance. Such other considerations may include, for example, growth, employment, redistribution, and supply side measures of economic policy. The resulting lack of consensus is more than likely to pose a problem to the adoption of Inflation Targeting, which has, as one of its central requirements, the premise of 'buy-in'.

Inflation Targeting sets aims for price stability as the ultimate (and only) goal of policy. Given South Africa's distinct "conditions", it may well be detrimental and possibly even dangerous to set aims for price stability in *apparent total disregard* of the need for economic growth and employment creation. The Reserve Bank, however, would not concur with this and will generally adhere to its view that the attainment of relative price stability as the exclusive objective of its policies constitutes the best contribution that the monetary authorities can make to economic growth and well-being. The impact of the Reserve Bank's rigid stance is that other key areas of economic policy are, or at least cannot but be seen as being, ignored.

Thus, the overall objective of this study is to examine Inflation Targeting in its entirety and to determine whether this new framework is in fact appropriate and relevant to South Africa in its specific circumstances.

The potential dangers of Inflation Targeting in South Africa create the need to formulate and adopt inflation targets within the framework of a more all-encompassing approach, such as a GEAR- type overall projection of the capabilities of, and realistically attainable prospects for, the South African economy[1]. Within a GEAR type framework, including *a broader set of elements* (not only inflation), organised labour and other parties can and should be invited to subscribe to a set of simultaneous and mutually consistent outcomes; within an acceptable set of projected feasible outcomes, the projected inflation rate(s) could still be turned into a mandatory policy objective of overriding importance for the monetary authority. The proposed framework should incorporate labour-friendly elements in order to achieve 'buy in' from the unions. If a more favourable climate is created for organised labour, greater participation can be achieved and

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[1] The need for a modified GEAR- type overall projection results partially from the perception that GEAR (in its traditional form) was hostile towards organised labour, with the effect that growth and employment has become relatively insignificant. A modification would be required that involved a more mutually beneficial relationship between the monetary authorities and labour.

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ACKNOWLEDGMENTS

While this paper has, over the past few months, consumed virtually all of my time and energy, there are certain people to whom I extend my sincerest thanks.

Firstly, I would like to extend my deepest thanks to Prof Meijer for providing me with direction in my study and the opportunity to constantly derive benefit from his wealth of experience and knowledge. Our mutual interest in the material encouraged a great deal of debate and discussion, much of which extended into the early evenings.

Thank you to DR Johan Van Den Heever and Anton Casteleijn of the South African Reserve Bank who helped to shape my understanding of South African monetary policy and provided me with valuable insight into the implementation of Inflation Targeting.

To Tali Stein who took time out to assist me in the editorial and design aspects of this paper and for her support.

I would also like to extend my gratitude to John Spira for his insight, and to Jackie and Steve as well as my friends and colleagues for offering their support

Finally, thank you to my parents, Ada and Julian, for providing me with the strength and encouragement required to complete this task.

SUMMARY

TITLE   : Inflation Targeting: An Unrecognised South African Dilemma

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DEGREE   : Master of Commerce

DEPARTMENT   : Economics

LANGUAGE   : English

UNIVERSITY   : Rand Afrikaans University

The overall objective of this study was to determine the appropriateness of Inflation Targeting to South Africa, or of South Africa's suitability for Inflation Targeting. For that reason, I shall produce information that will aid in the determination of whether the South African Reserve Bank has been correct in their adoption of this framework, and to propose an alternative, more all-encompassing option.

The research design used in this study in terms of Tripodi, Fellin and Meyer's (1982:40) classification can be termed as a hybrid of the exploratory and the quantitative-descriptive designs.

Chapter 1 introduces the reader to the research paper. This chapter incorporates the rationale and importance of the study, its methodology, hypothesis, limitations, aims, and referencing method. It sets out clear aims and objectives for the thesis while providing an overview of the material.

To facilitate the analysis of Inflation Targeting in South Africa it was vital to have a clear and accurate understanding of what Inflation Targeting is. The definition and an analysis of the definition are covered in Chapter 2. As other authors have detailed this aspect voluminously, it is just dealt with summarily in this section.

Chapter 3 discusses the requirements for Inflation Targeting as set out by the authorities. These factors are primarily of a technical nature. While the information garnered for this section is invaluable, it is inadequate in isolation. Countries' individual circumstances play an important role, and need to be considered along with the purely technical requirements for Inflation Targeting. This chapter is important in the analysis as it provides an important yardstick for the analysis of the requirements in South Africa.

In order to attain an enhanced grasp of Inflation Targeting and its potential impact and effects on South Africa, it is imperative to take lessons from other countries where the framework has been implemented. Chapter 4 analyses international experiences with Inflation Targeting, with the main aim of learning from the experience of developed and, more importantly, developing nations.

The paper then moves into the most important section: that of South Africa. Once a full understanding of what Inflation Targeting involves is obtained, both theoretically and empirically, we are in a position to consider where South Africa fits in. South African monetary policy is evaluated briefly, while the technical requirements of Inflation Targeting are analysed in their South African context. Various problems are discussed with the applicability of the framework to South Africa. The later part of this section analyses technical and socio-political complicating factors, while a description is provided of a suggested alternative framework.

The final chapter concludes that South Africa is, indeed, almost certainly "less than suitable" for Inflation Targeting and suggests that a more holistic framework of a "GEAR-type" nature is more likely to be appropriate to a country with the uniqueness of South Africa.

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HYPOTHESIS AND METHODOLOGY

1.1 RATIONALE FOR AND IMPORTANCE OF THE STUDY

Inflation Targeting, apart from being an area that stimulated my intellectual curiosity, is a central topic on the minds of many economic agents in South Africa. Inflation Targeting, to be sure, still remains an area of monetary policy surrounded by much uncertainty. Given that Inflation Targeting has only been in existence for just over ten years, it is difficult to determine whether South Africa is an ideal country for the framework. Although fairly little research has been conducted on Inflation Targeting in South Africa, the work that has been done concerns itself primarily with textbook requirements mostly of a quite technical nature, for the successful implementation of an Inflation Targeting strategy. My rationale for engaging in this area of research is that Inflation Targeting in South Africa has reached a stage that necessitates analysis and evaluation. My interest in this area is also based on my belief that this is an area of monetary policy that needs to be expanded on and looked at from a deeper, more holistic angle.

This paper, while analysing the general requirements and benefits of Inflation Targeting, extends to cover areas that seem to have been ignored in the past. South Africa is and has for many years been undergoing a process of profound structural change, which in my opinion makes the framework far less clear-cut than the academics and monetary authorities would have us believe.

As the Stals era of monetary policy ended in 1999, a new Governor was appointed to the South African Reserve Bank and a new era began. With this new era came the controversial announcement of a new monetary policy framework: Inflation Targeting. South Africa thereby moved away from an essentially eclectic approach to monetary policy to join the ranks of other advanced and emerging economies that have adopted this *fashionable* new framework.

Over a year has now passed since Inflation Targeting was introduced in South Africa, and the time seems right for an evaluation of the effort to date. Internationally, the general consensus on Inflation Targeting is positive. The framework is, however, still new, and its applicability to emerging economies, South Africa included, remains questionable. This would seem to be

confirmed by the fact that the majority of these economies, presumably for technical and other reasons, have not (yet) seen fit to adopt Inflation Targeting strategies.

While various individuals and institutions stress stringent *technical* requirements for Inflation Targeting, which South Africa seems to fulfil, much of the literature ignores many of the important *country specific* issues – South Africa, for one, is dealing with issues that accompany its recent and current social, economic, cultural, political and ideological transformations and their impact on monetary policy.

South Africa is in many ways unique. It is these unique characteristics which, if not accounted for, may impinge on the authorities ability to make a success of the policy. South Africa still retains infancy status with regard to its current monetary framework. It is for this reason that understanding Inflation Targeting within a broader context is significant.

The importance of this paper is based on its conceptualisation of Inflation Targeting within South Africa's unique and challenging socio-economic environment. It identifies the *South African dilemma* and proposes solutions to these contentious issues.

1.2 AIMS

The study's overall objective is to determine the appropriateness of Inflation Targeting to South Africa and to evaluate the successes of this strategy to date. This study will seek to provide information that will determine whether the South African Reserve Bank has been correct in its adoption of this framework, and to propose an alternative, more all-encompassing option.

The aims therefore include the following:
- To define and analyse the concept, Inflation Targeting.
- To analyse the potential advantages of incorporating such a framework into South African monetary policy.
- To define the prerequisite requirements for the adoption of Inflation Targeting and to assess whether or not these requirements are met in South Africa.
- To draw lessons for South Africa from international experience.
- To determine whether Inflation Targeting, given South Africa's unique characteristics, is suitable to South Africa and can provide the benefits proposed by its advocates.

- To propose an alternative, more holistic, economic policy framework that is geared specifically towards South Africa's unique features, conditions and policy needs.

1.3 RESEARCH METHODOLOGY

According to Grinnell (1980: 219), *"A research design is a plan which includes every aspect of a proposed research study from the conceptualisation of the problem right through to the dissemination of the findings."* The research design used in this study in terms of Tripodi, Fellin and Meyer's (1982: 40) classification can be described as a hybrid of the exploratory and the quantitative-descriptive designs. Collins (1987) describes an exploratory design as an investigation aimed at refining concepts as well as the development of questions and hypothesis for further investigation. As very little formal research to investigate the appropriateness of Inflation Targeting as a monetary framework, *given South Africa's unique circumstances*, has been carried out in South Africa, this study is exploratory; and because the study aims to describe the perceptions of monetary authorities regarding its appropriateness to South Africa, it can be regarded as descriptive in nature. Collins (1987) asserts that the quantitative-descriptive design mainly serves to reveal potential relationships between variables.

1.4 LIMITATIONS OF THE STUDY

- Findings in this study may not be generalisable due to the fact that many of the issues discussed for their relevance to inflation, inflationariness of the economy, or inflation forecasting, do not lend themselves to incorporation into econometric models.
- Qualitative research methods by their very nature have more shortcomings than do quantitative methods, being more open to interpretation, thus possibly more subjective.
- Various premises that this study relies on have not been tested empirically, while those that have are subject to much debate.

1.5 HYPOTHESIS

South Africa is noticeably disparate from most other developing economies. The most obvious features of differentiation are as follows:

I. South Africa's pronounced racial and cultural heterogeneity. In as much as and to the extent that the differences in these areas also tend to be correlated positively with differences in average incomes and wealth among various segments of the population, South Africa's society has on occasion been described as it has by its president – as consisting of two nations in one.

II. Marked skewedness of the distribution of income contributes to pressures for redistribution of income and wealth, as evidenced, for example, by Government's Reconstruction and Development Programme (RDP) and its Growth, Employment and Redistribution Programme (GEAR). It may also be held to contribute to the militancy of South African labour union activism, and to have played a part in the high degree of labour friendliness of recent labour legislation. These and related phenomena tend to result in comparatively high total real-labour cost levels for South African business enterprises (notably as compared with other emerging economies), and to rising nominal labour costs. These and other peculiarities induce high unemployment. Combinations of high unemployment, labour market rigidity, labour union assertiveness, widespread poverty and its associated social ills as well as other factors peculiar to South Africa's position on the African continent and among the world's emerging economies, are harmful to South Africa's image among foreign investors and therefore to the exchange value of the rand. In this and other ways, these phenomena bring about cost-push pressures on the level of domestic prices, largely unrelated to the state of domestic demand.

South Africa is quite unlike other emerging market economies in that both the real wage level and efforts to boost it appear to be highly insensitive to the existence of high and possibly growing unemployment.

South African monetary policy, aiming at price stability, is burdened with the need to counterbalance these cost-push pressures. In particular, comparatively high real interest rates regularly add to the downward pressures on investment (particularly job-creating investment), as well as on economic growth.

Elements of vicious circularity may enter this chain of causation if and to the extent that an increase in interest rates as a disinflationary measure of monetary policy, by (among other things) worsening the unemployment situation and dampening real growth, were to undermine foreign confidence and to aggravate the external causes of inflation through a further weakening

of the exchange rate. _Theoretically_, therefore, an unduly one-dimensional, rigid and unqualified adherence to a low inflation target could _conceivably_ set the South African economy on the road of a slow implosion.

Other factors relating to government policies and bearing on foreign and domestic investor confidence may come into the picture. It may be noted that in the absence of significant "vicious circularity", a single-minded anti-inflationary monetary policy might be unpleasant, but would be _unlikely_ to be intrinsically _ineffective_: price stability should still be attainable even though it might be necessary to consistently run the economy at well-below capacity levels (and possibly also at well-below potential rates of real growth). In contrast, heavy vicious circularity of the kind referred to could conceivably doom the economy to both painfulness _and_ relative anti-inflationary ineffectiveness of its monetary policies.

In conjunction with other structural shifts and transformations, the above, in my opinion, suggests the possibility of deep-seated structural problems in the South African economy that work against the simple application of Inflation Targeting in the manner of more homogenous, closely knit and sophisticated societies such as those of the UK and New Zealand. These problems go further than just to complicate the forecastability of inflation in South Africa.

1.6 USE OF REFERENCES

Several acknowledged reference methods exist. For the sake of uniformity, I have used a modified version of the Harvard method. The author's name, date of publication and page number are provided in the text. A bibliography arranged alphabetically, according to the author's surnames, is provided at the end of the study.

CHAPTER 2

INFLATION TARGETING: WHAT IS IT?

2.1 PREAMBLE

A prerequisite to understanding the implications of Inflation Targeting as a monetary framework for South Africa is an understanding of what Inflation Targeting is. In writing this Chapter, I aim to achieve the following: (1) to provide a definition of Inflation Targeting as provided by Bernanke and Mishkin (1997:3); and (2) to briefly analyse this definition, using appropriate and relevant theories.

Definitions of Inflation Targeting are numerous, fairly standardised and uncontroversial. Consequently, this Chapter seeks to summarily achieve the objectives highlighted above.

2.2 DEFINITION

Literature provides various, but broadly similar and overlapping, definitions of Inflation Targeting[2]. Bernanke and Mishkin (1997:3) present a standard definition of Inflation Targeting for purposes of this chapter. They define Inflation Targeting as, *"[a] framework for monetary policy characterized by the public announcement of official quantitative targets (or target ranges) for the inflation rate over one or more time horizons, and by explicit acknowledgement that low, stable inflation is monetary policy's primary long-run goal. Among other important features of Inflation Targeting are vigorous efforts to communicate with the public about the plans and objectives of the monetary authorities, and, in many cases, mechanisms that strengthen the Central Bank's accountability for attaining those objectives."*

The above definition emphasises the cardinal elements of Inflation Targeting. It highlights the fact that Inflation Targeting does not simply mean the setting of a target for the inflation rate; but it does mean the adoption of a framework for application. As such, it consists of the following elements:

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2 See, for example. Almeida, A & Goodhart C.A.E (1998); Debelle, G., (1997); Masson, Savastano, and Sharma (1997) ; and Svensson (1996).

- A public announcement *of the adoption of an explicit Inflation Targeting framework.*

- Official quantitative targets *to be achieved through the Inflation Targeting framework.*

- Price stability *as the long run goal of monetary policy.*

- Communication *to the public on the nature, rationale and importance of Inflation Targeting.*

- Accountability *of the Central Bank for the attainment (or non-attainment) of the set inflation targets.*

- An information framework, *which includes the analysis of all relevant economic indicators, not only monetary indicators.*

2.3 NATURE OF INFLATION TARGETING

A distinction of Inflation Targeting, as opposed to other monetary frameworks, is that Inflation Targeting has inflation as its sole target. Other variables, such as the nominal exchange rate or money supply, are subordinated in favour of the inflation target. This point is relevant to a country like South Africa where exchange rate volatility is notably higher then in most developed countries where Inflation Targeting has been implemented, making it increasingly difficult to ignore the influence of the nominal exchange rate (particularly in the short term). It is important to note that certain anomalies exist, whereby countries that define themselves as targeters, such as Israel, have explicit targets for both inflation and the exchange rate.

Inflation Targeting creates an infrastructure whereby countries take a forward-looking approach in policy making, such that the forecasted future inflation rate becomes the intermediate target (although inflation targeters have no option but to look at past behaviour as a [first, approximate] guide to the future). The difference between Inflation Targeting and other monetary frameworks is *vis-à-vis* authorities who are responding (largely) to current, or the most recent, developments. The forward-lookingness arises from the fact that the authorities have no choice but to recognise the lags in effect of their policy actions.

Inflation Targeting is multi-faceted. As such, certain requirements exist in order to adopt the framework[3]. This includes the absence of fiscal dominance and a specific goal of monetary policy. Once the framework is implemented the Central Bank typically finds itself constrained to

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3 Discussed in detail in Chapter 4.

adopt supporting modifications of its behaviour, such as enabling communication leading to increased openness and transparency.

Proponents of Inflation Targeting advocate the advantages of the framework: A nominal anchor is provided for the anchoring of inflationary expectations, while having government "buy-in" ensures that the fiscal authorities keep their side of the deal regarding the government wage bill and administered prices.

There are, however, other factors that are problematic and that make the straightforward adoption of Inflation Targeting difficult. Indeed, it is still largely uncertain whether Inflation Targeting will bear the anticipated fruit and whether its advantages outweigh its disadvantages.

2.4 SUMMARY

The adoption of an Inflation Targeting strategy means a public announcement by monetary authorities for the attainment of a specified, quantified target for one or more inflation rates over a certain future time period, or at some future point of time, on the understanding that price stability is the long-run goal of monetary policy.

The various definitions of Inflation Targeting incorporate defining features of the framework and highlight requirements that have to be met to facilitate its application. For example, because Inflation Targeting typically inspires increased communication with the public, the abandonment of other nominal anchors, and generally promotes increased transparency, these elements are factors that the authorities will feel constrained to put in place as a foundation for the framework and its implementation. However, while these elements are important, they are not unique to Inflation Targeting. It is important, therefore, to distinguish between defining Inflation Targeting and identifying the features of monetary policy that are generally seen as essential for the framework to be implemented. These requirements are laid out in Chapter 4.

CHAPTER 3

THE CASE FOR INFLATION TARGETING

3.1 PREAMBLE

This chapter deals with the question: why has a move towards Inflation Targeting become so prominent amongst Central Banks around the world?

The 1990s can be identified as the era of Inflation Targeting, with several developed economies, such as the UK, Canada, New Zealand and Australia, as well as various developing economies, such as Chile, Brazil, and now South Africa, adopting the "new" framework.

Combined with an assessment of the strengths of Inflation Targeting, this section analyses the rationale and advantages claimed for this monetary policy framework. Analysing the advantages of Inflation Targeting will yield valuable information for the application of Inflation Targeting in South Africa, as well as yielding insight into the rationale for its adoption.

3.2 THE REASONS FOR ADOPTION

Although the move towards Inflation Targeting seems to have occurred across the board, the countries that have adopted this framework, along with certain commonalities, exhibit divergent key characteristics, for example as regards the monetary and fiscal climate. These disparities seem to point toward the idea that the reasons for the adoption of Inflation Targeting can differ across countries.

In most cases, however, the prime motives for the adoption of Inflation Targeting have been identified as follows:

Inflation Targeting providing a nominal anchor for inflationary expectations.

Inflation Targeting inducing increased Central Bank accountability.

Difficulties in the establishment of Central Bank credibility, as inflationary expectations are unclear and difficult to change.

Obstacles to an evaluation of the Central Bank's performance.

The move towards Inflation Targeting as a monetary policy framework, over the past decade, has occurred for a number of reasons. Primarily, this shift has been a consequence of the failure of other policy frameworks, such as, fixed exchange rate regimes in the case of Brazil, Chile, Sweden, and other countries. Elsewhere, Inflation Targeting has replaced more discretionary or eclectic policy approaches. Examples of such cases include Canada, New Zealand and (now most recently) South Africa.

In the case of the United Kingdom, Sweden, and Finland, Inflation Targeting was introduced in response to the failure of a fixed exchange rate regime. In Spain, Inflation Targeting was adopted primarily because of the failure of the use of an exchange rate target and of a monetary (i.e., money stock) targeting regime.

Goodhart (1998: 27) identifies two key reasons for the abandonment of a discretionary monetary policy in favour of Inflation Targeting. Firstly, it makes (or should make) the Central Bank more accountable, because the Bank now has a specified target to achieve. Mishkin (2000: 19) would concur with this statement and asserts that the Central Bank's increased accountability prevents it from falling into a time inconsistency trap. Secondly, a nominal anchor is required for a gelling of inflationary expectations.

Another reason for the adoption of Inflation Targeting replacing discretionary policy is that the Bank's performance under Inflation Targeting can be evaluated more effectively. Inflation Targeting makes evaluation unambiguous. The target is either hit or missed, whereas under an eclectic approach, accountability in its strict sense cannot exist – for lack of a clean or firm specification of what the Bank is or has been aiming at.

3.3 THE CASE FOR INFLATION TARGETING

Inflation Targeting accepts the validity of four important propositions (Masson et al., 1997: 5). These are:

1. Money is neutral in the long run, i.e. - an increase in the money supply ultimately affects only the price level in the long run, and has no effect on economic activity.
2. Inflation is undesirable in terms of its negative effects on resource allocation and on long-run growth.

3. Money is not neutral in the short run and as such has manifestations on real variables, the extent of which is largely unknown.

4. Monetary policy affects inflation with *lags* of an uncertain duration, pattern and extent.

Although the above propositions are often presented in various literature sources as arguments in favour of Inflation Targeting, it is vital to understand that they are reasons for fighting inflation, but do not necessarily make a case for the adoption of Inflation Targeting. That case, therefore, has to be based on benefits claimed specifically for Inflation Targeting itself.

3.4 ADVANTAGES OF INFLATION TARGETING

The primary aim of Inflation Targeting is to facilitate or allow for the attainment of low levels of inflation while increasing the possibility of economic growth (Jonsson, 1999: 2). The Central Bank is prevented from using monetary policy for short-term gain, as the likelihood of missing the target would thereby be increased. The Bank commits to a target and through a process of communication and openness a greater degree of certainty is created in the markets.

Inflation Targeting has various advantages when compared with other monetary regimes. The public easily understands an inflation target, for example, when compared with a monetary target. When compared with an exchange rate target, Inflation Targeting allows policy makers greater freedom to respond to internal domestic considerations (Mishkin, 1999: 12).

Inflation Targeting may lead to better cyclical adjustment in the economy, because Inflation Targeting can potentially provide greater flexibility to deal with shocks (Jonsson, 1999: 6). In the face of a positive demand shock for example – resulting in inflationary pressure and an increase in the output gap – the Inflation Targeting policy response would be to tighten monetary conditions and to shrink the output gap. Shocks to the velocity of circulation are no longer an important consideration, because Inflation Targeting targets the ultimate goal variable (inflation), as opposed to an intermediate variable (money supply). As a result, the relationship between money supply and inflation becomes irrelevant. Similar considerations may apply in cases of supply shocks[4] . An Inflation Targeting framework, compared with an exchange rate targeting

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4 An area of concern, however are supply shocks – such as an international oil price increase – that induce accelerated measured inflation but simultaneously brake economic growth and create unemployment. In these cases, unqualified adherence to the inflation target may well prove destabilising to the real economy.

framework, provides a greater amount of flexibility to deal with these shocks in a more stable environment.

A comprehensive list of benefits claimed for Inflation Targeting would include:

1. *The provision of a Nominal Anchor.* Inflation Targeting provides a nominal anchor that influences inflationary expectations. Financial turmoil and speculative currency attacks have given birth to a need in emerging economies (countries in Asia, South America, and South Africa) for such an anchor, following on from the breakdown of the financial system (Mishkin, 2000: 1).

    The time inconsistency problem is reduced through the effect of constraining discretionary monetary policy, hence promoting long-run stability in the price level[5] (Mishkin, 1999: 19). The nominal anchor can play a role in restricting or limiting political pressures.

    Sherwin (2000: 7) argues that within small open economies, Inflation Targeting provides an essential nominal anchor where other, more familiar, guideposts have become unreliable. In the case of Chile, Australia and New Zealand, the increase in inflation through oil shocks called for an anchor for expectations.

2. *Sharpening of "Lag Recognition".* The forward-looking nature of Inflation Targeting forces policy makers to explicitly recognise lags in the effect of Central Bank operations. This recognition will force Central Banks to operate on the understanding that the effect of their actions may take up to two years to filter through the economy. Greater financial stability can be provided if policy makers move away from the "stop-go" policy making in response to current developments.

3. *Strengthened Accountability.* Inflation Targeting allows the Central Bank to be held accountable. As a consequence of its clear and one-dimensional mandate, the Bank cannot hide behind a multiplicity of objectives as an excuse for its failure to reach any one of them. In New Zealand, the Governor is personally accountable for attaining the

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5 The time inconsistency problem arises through the effect of policies that have short-run benefits, such as accelerated economic growth, at the expense of long-run goals.

inflation target and may have to pay with his governorship if it is not attained. In South Africa, if the target is not met, the Bank needs to explain why it was not. Clearly, there is scope here for significant differences between Inflation Targeting countries. Accountability without *significant sanctions* would not necessarily amount to anything more than a Central Bank obligation to report factually from time to time on the whats and whys of its policy actions or inaction (which may or may not have had their desired effect). If the South African targets were to be missed, it would not be the first time (or probably the last for that matter) that the governor needs to explain what went wrong.

Against this, severe sanctions, or the mere possibility thereof, could very well cause the Central Bank consistently to err on the side of caution in whichever direction relative "safety" (for itself) might seem to lie; to overreact; and possibly also to experience its freedom of action and its "operational", if not also its "goal", independence as having been diminished or compromised. This last-mentioned result would be obtained if the Central Bank, weighing the risks now associated with the missing of the target in a highly uncertain world, finds itself adopting measures it would not have adopted if guided by considerations of "the good of the country" only.

4. *Stronger Commitment*: Once the Bank has a clear mandate and the Governor is operating within an environment of being exposed to sanctions, the commitment of the Bank will (should) increase.

5. *Buy-in*: The inflationary bias in the economy will (hopefully) be reduced if not removed by getting "buy-in" from all stakeholders.

- Ideally, the Minister of Finance imposes the inflation target, thereby presumably enlisting at least the passive co-operation of Government. Government will not hinder the Central Bank in its operations and should itself refrain from policy actions – in whatever policy area – that would make the target more difficult or impossible to attain.
- When Government and the Bank appear to be working together for the attainment of the same goal, the credibility of the target will increase.

While enlisting the co-operation of Government is important, it is vital that other stakeholders (organised labour and business) also agree on the Inflation Targeting framework.

⊄ 6. *More Favourable (Supportive) Inflationary Expectations*: Once the essential elements for the framework have been put in place, inflationary expectations *should* be influenced. That is, if business, private agents and other stakeholders believe in the target and that it can be hit.

7. *Pedagogical Device:* Inflation Targeting serves as a pedagogical device, in that it forces the authorities to explain inflation, the evils of inflation, methods of inflation fighting, as well as the negative effects of pursuing an expansionary monetary policy (Masson et al 1997). Most Inflation Targeting Central Banks have become increasingly "educational", using the press and their Internet Websites for publishing information that explains both their stance and the reasons behind it[6].

⊬ 8. *Improved Coordination of Policies.* Inflation Targeting can improve the coordination between monetary policy and other macroeconomic policies (Mboweni, 1999). In light of the fact that the target is, ideally, set through mutual agreement between the Government and the Central Bank, government is now required to adjust its own objectives to the attainment of the inflation target. According to a senior SARB representative, this is the most important advantage of Inflation Targeting[7]. The Government now effectively becomes accountable for relevant actions in its various policy areas (e.g. administered prices) to the Central Bank. (This view, of course, may turn out to be optimistic: the Government could, in fact, be cynical and do as it wishes, then simply blame the Central Bank as the responsible party for failure to attain the inflation target).

Intensified Communication: Communication with the public typically tends to be stepped up under an Inflation Targeting regime (see table 1). Central Banks will publish reports on the outlook for inflation as well as on their monetary policy stance. The South African Reserve Bank has recently published its first monetary policy report, containing elements such as the outlook for inflation, inflation forecasts, an explanation of its policy stance, and other factors that should

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6 Although most Central Banks who do not explicitly target inflation generally do the same.

7 Personal interview with Anton Casteleijn on the Reserve Bank's Inflation Targeting framework.

increase the public's understanding of current monetary policy. The inflation reports and other communication forms serve not only to justify the Bank's stance, but also to educate the public and to achieve stakeholder buy-in.

Ultimately, it is hoped that through transparency and communication private expectations will converge with that of the Bank, so as to appropriately affect price and wage setting behaviour. Almeida (1998) points out, however, that this may be not effective when the public believes that the Bank has ulterior motives for achieving the inflation target, or doubts the technical abilities of the Bank to attain its target. Through communication, *"Inflation targeting clarifies the banks objectives, in pursuit of the ultimate goal of price stability"* (Mboweni, 1999:3)

Almeida and Goodhart note that communication may come to be used as an additional monetary policy instrument. The case of New Zealand is cited whereby once the Bank makes statements, the conditions necessary for the attainment of the targets often are delivered for the Bank. That is, when the public believes the monetary policy statements, the markets estimate (for themselves) the interest rate adjustments required to meet that target and will frequently effect these adjustments of their own accord.

Publishing inflation reports (hopefully) strengthens both the Bank's credibility and the public's belief that the inflation targets will be met. According to Almeida (1998: 67), the publication of press releases on monetary policy activity *"may contribute to persuade the agents that the move is consistent with the inflation target."*

> ### Table 1: Measures of Central Bank communication
>
> Australia:
> Semi annual statement issued on monetary policy
> Quarterly report on the *Economy and Financial Markets*, with an extensive discussion of
>
> inflation and monetary policy changes
>
> Press releases on monetary policy changes
>
> Canada:
>
> Twice yearly Monetary Policy Report
>
> Publication on economic and *Financial Conditions and Monetary Policy*, which include
>
> governors comments
>
> Policy changes in press releases
>
> Outreach programme whereby senior bank officials meet with all stake holders
>
> Finland:
>
> Quarterly article on policy, in *Bank of Finland Bulletin*
>
> Press statements following policy statements
>
> Greater emphasis on public speeches regarding the inflation outlook
>
> New Zealand:
>
> Twice yearly monetary policy statement
>
> Quarterly economic projections

Source: Almeida & Goodhart (1998)

9. *Increased Transparency*: Transparency is aided by the fact that the inflation target is normally stated to be the sole ultimate policy objective. The Bank's actions and analysis are open to public scrutiny. The Bank is required to act transparently in order for the public to understand their actions. Other monetary frameworks are believed also to have the ability to increase transparency, but due to the complicated nature of, for example monetary targets, it is unlikely that they could match Inflation Targeting on this score (Bernanke and Mishkin: 1997). For example, prior to an election an incentive exists for government to increase short-run output at the expense of long-run inflation. Transparency will to a greater or lesser extent preclude this from happening.

Transparency also increases democratic accountability (Mishkin: 2000). For a strong Central Bank transparency will promote credibility; for a weak Bank though, it is conceivable that the opposite would apply.

Transparency in itself has several advantages (Mishkin: 2000). The Central Bank's reputation is enhanced, and the inflationary bias is reduced. When an exogenous transparency regime exists, transparency is preferred to secrecy. The argument is particularly important to young Central Banks, which have not yet established credibility; Banks argue that forecasts should not be made because of the uncertainty that exists regarding accurate forecasts. However, it is argued that if this is the case, greater uncertainty exists within the market, fostering a greater need for transparency[8].

10. *Openness*: Closely related to transparency is the fact that Inflation Targeting forces openness. The public should have a clear view of (all) the Bank's actions; the rationale for the Bank's actions should be open to the public; as far as possible, the information on which the Bank is basing its decisions should be accessible to all.

11. *Performance Evaluation*: Because the Bank has a clear and one-dimensional mandate, its performance is easy to evaluate. For example, where an inflation target has been set, the Bank either has or has not hit the target; the extent to which it may have missed the target is similarly obvious.
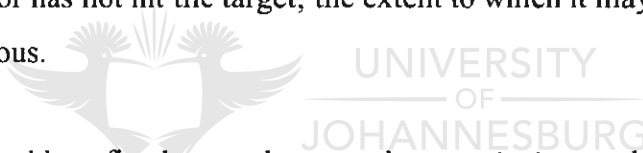
In addition to these several benefits that can be argued on *a priori* grounds, it can also be claimed on the basis of empirical evidence that Inflation Targeting has already had pronounced beneficial effects on the volatility of both inflation and output in Inflation Targeting countries (Jonsson: 1999). Figure 1 illustrates the stabilising effect of Inflation Targeting, based on statistical evidence from the Inflation Targeting countries.

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8 In a personal interview with a senior reserve bank representative, I was told that the reason why the SARB's inflation forecasting econometric model is not published is that, among other factors, this model has only recently been developed. Thus the Bank, at this stage, is uncertain about its model which, according to the argument presented above, is reason enough for the model to be published.

Figure 1: Volatility in CPI Inflation in selected countries

Volatility in CPI inflation

Legend:
☐ Before inflation targeting
☐ With inflation targeting

(Y-axis: Standard deviation, 0.0 to 3.0)

(X-axis categories: New Zealand, Canada, United Kingdom, Sweden, Finland, Australia, Spain, Other 2/ industrial countries 1985-92 1993-98)
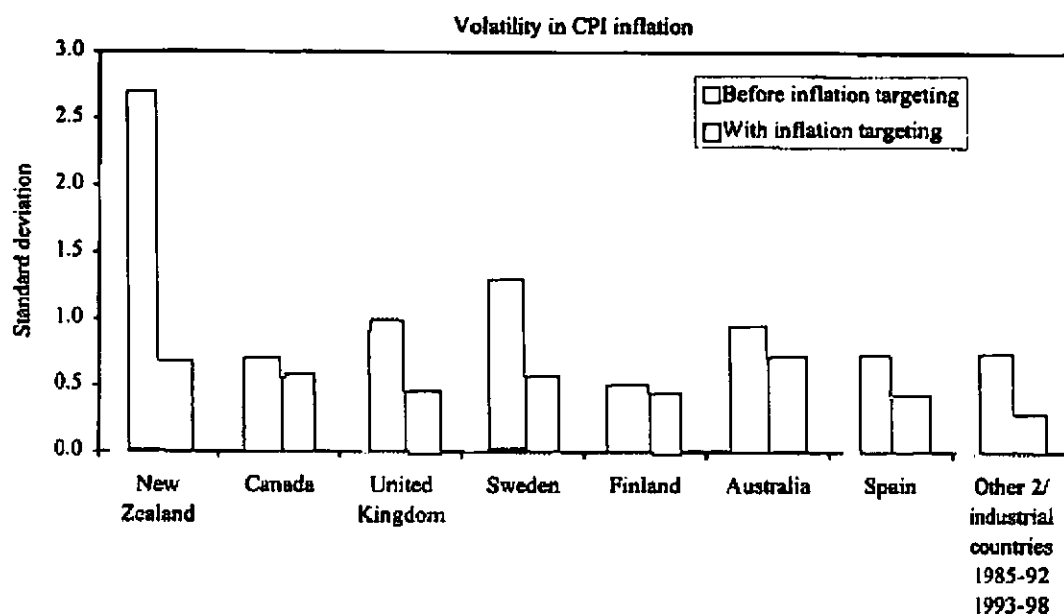
Source: Jonsson (1999)

Figure 1 shows selected countries' experiences with Inflation Targeting. Inflation volatility is measured before and after the implementation of Inflation Targeting. In all cases CPI volatility has been reduced during the Inflation Targeting period, with notable reductions in particular in New Zealand, the United Kingdom and Sweden. This suggests a major benefit of Inflation Targeting in terms of CPI stabilisation. However, although this creates a presumption in favour of the stabilising impact of Inflation Targeting, other countries have had the same experience – leaving "the jury still out" on the power of Inflation Targeting.

Figure 2: Volatility in GDP Growth in selected countries

Volatility in GDP growth
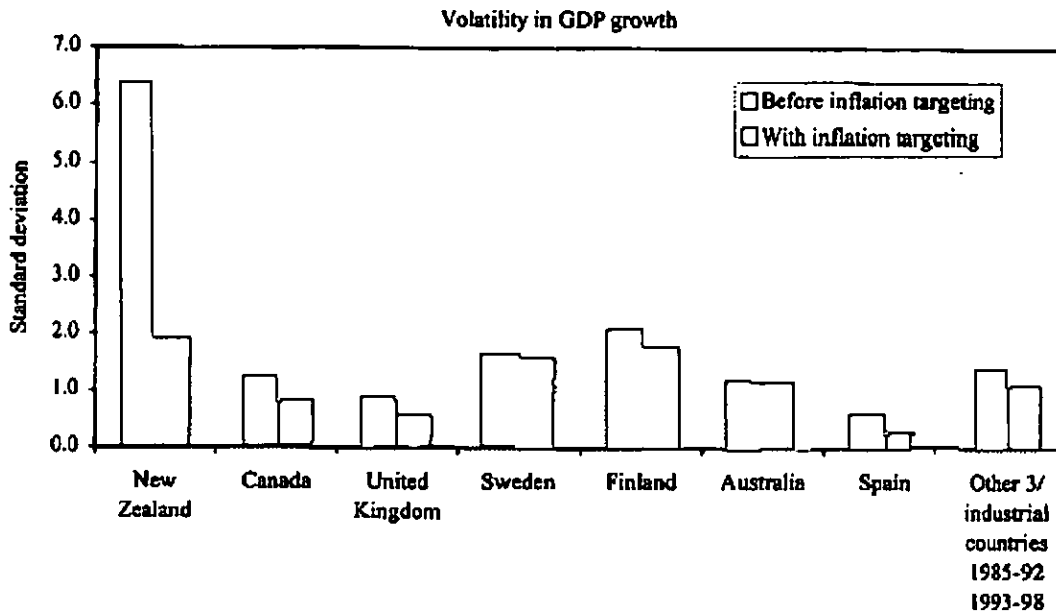
Source; Jonsson (1999)

Figure 2 shows a concomitant decrease in output volatility amongst the Inflation Targeting countries. New Zealand in particular shows a remarkable decrease in output volatility[9]. Jonsson (1999) feels entitled to conclude that Inflation Targeting has reduced both output and inflation volatility. There are however other factors that may have contributed to this, such as high and stable growth during the period concerned in the USA, which itself is a non-inflation targeter.

3.5 SHORTCOMINGS AND DISADVANTAGES OF INFLATION TARGETING

Inflation Targeting, along with its advantages, also reveals certain disadvantages. Bernanke and Mishkin (1999) identify several key disadvantages of Inflation Targeting. In a 2000 publication they make a distinction in the disadvantages identified by noting that the first four of these are not relevant to emerging economies, whereas points five to nine are particularly important to these economies.

2. Framework allows 4 2 much discretion
3. Potential exists 4 inflation targeting 2 increase output 4 instability
4. Inflation targeting lowers economic growth.

The first four disadvantages are identified as follows:

1. Inflation Targeting is too rigid;

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9 It is important to note, however, that again this phenomenon has also been shown by other industrial countries, that do not explicitly target inflation. (Jonsson: 1999)

2. The framework allows for too much discretion;

3. Potential exists for Inflation Targeting to increase output instability;

4. Inflation Targeting lowers economic growth.

The proposition that the first four disadvantages are not relevant to developing economies may, however, be a little presumptuous in South Africa's case. Inflation Targeting may indeed lower economic growth as well as potentially create output instability. Moreover, in the face of severe economic shocks the inflexibility of Inflation Targeting may cause the economy to be pushed into a downswing, or may worsen the effects of a recession.

Bernanke and Mishkin's remaining disadvantages may be listed as follows:

5. Inflation Targeting can only produce _weak_ Central Bank accountability. Because of the effects of lags inflation is difficult to control, particularly in emerging market economies. In the case of South Africa, this may well be relevant - the lags are of an uncertain duration.

6. The incidence of Government-controlled prices on the index used to compute headline inflation is a matter for concern (Mishkin 2000: 5). Administered prices in South Africa over the past year have risen significantly faster than both the CPI and the CPIX.

7. Inflation Targeting cannot _prevent_ 'fiscal dominance'. Governments can still operate without fiscal discipline, leading to large budgetary deficits and eventually causing the breakdown of the Inflation Targeting regime. Through monetisation, the fiscal deficit or the public debt will be eroded, leading to high inflation.

8. Exchange rate flexibility required by Inflation Targeting may cause financial instability. This point is of considerable interest for most developing economies. It has been contended that much of the recent exchange rate volatility that has been experienced in South Africa occurred because it was known that the Reserve Bank would try to defend the currency. It could be argued, however, that Mishkin's specimen cases may also be looked at from another – i.e. the opposite – perspective, i.e. that the defence of an increasingly unrealistic exchange rate may itself become the cause of instability.

9. Dollarisation: In certain developing economies a substantial portion of long-term debt is likely to be in dollars. This creates an environment of potential financial instability.

Mishkin (2000) suggests a possible chain of causation as follows:

The dollarised economy experiences a currency depreciation, resulting from an external shock. The depreciation increases the burden of dollar-denominated debt, thus, depending on the degree of depreciation, increasing the likelihood of a financial crisis. A potential incongruity exists. This type of disaster struck the South East Asian economies in 1997-1998; the countries concerned, however, were on fixed exchange rates rather than pursuing Inflation Targeting.

Mishkin's argument suggests that certain emerging market economies, those with a large portion of dollar-denominated debt, should not use Inflation Targeting as a framework for Monetary Policy, unless there is strict supervision of financial institutions and the economy is capable of absorbing external shocks. The conclusion suggested by Mishkin corresponds to the conclusions drawn from the 1997-1998 disasters; again, however, these countries were not inflation targeters.

10. What measure of inflation should be targeted? The choice of index involves a trade-off of inflation controllability versus the ability to influence expectations. If a common measure, such as the CPI, is used because it is entrenched in public perception, Inflation Targeting has a greater ability to influence expectations than in the case of a more artificial index (which the authorities may well have greater control over). When the measure has significant exclusions, inflation becomes more controllable and the Bank is more likely to hit the target. In these circumstances, however, the effect on inflationary expectations is not as good as with a common index. The public has a perception of what inflation is and this perception is generally based on CPI inflation. An artificial index will only have the ability to influence expectations when the Bank has pre-established credibility, which is not usually the case with emerging market economies. As one Czechoslovakian union worker said " We don't consume 'net' inflation"[10] .

Reasonably, the public is sensitive to what it considers to be the comprehensive "cost of living". Where households carry much debt, interest rates are surely important to them, even if there is a more continuous awareness of the "supermarket-type" price increases.

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10 Net inflation is the index used for Inflation Targeting in the Czech Republic. It is a new indicator, which measures changes in CPI excluding movements in regulated prices and adjusted for the impact on the remaining items of changes in indirect taxes or subsidy elimination (Jonas: 2000).

3.6 SUMMARY

The above analysis illustrates that, potentially, Inflation Targeting has strong advantages. The provision of a nominal anchor for inflationary expectations, along with the effects of credibility, openness and transparency, are undeniably important advantages of Inflation Targeting. They can, however, be achieved without operating in an Inflation Targeting environment. Similarly a public understanding of the stance of monetary policy can be achieved in other monetary regimes.

As Mishkin notes, various shortcomings exist within the framework, many of which are relevant to developing nations. Factors such as the requirement of not anchoring the exchange rate, as well as the effect of government-administered prices (which are of particular concern in South Africa), can complicate the framework and outweigh the potential advantages.

CHAPTER 4

REQUIREMENTS AND FEATURES OF AN INFLATION TARGETING FRAMEWORK

4.1 PREAMBLE

Inflation Targeting is a monetary policy framework that has certain features and prerequisites that need to be met in order for the framework to be implemented. This section investigates these characteristics and requirements.

4.2 REQUIREMENTS

Literature (Masson et al. 1997 among others) reveals eight requirements that act as prerequisites for the use of Inflation Targeting as a guide for monetary policy. These are:

4.2.1 CENTRAL BANK INDEPENDENCE AND FISCAL DOMINANCE

A crucial issue when considering the implementation of inflation targets is the matter of Central Bank independence. According to Masson et al (1997), independence does not necessarily require goal independence, but must enable the Bank to achieve the goal as desired (instrument independence). A relationship exists between instrument independence and fiscal dominance (Debelle: 1997). The Central Bank must not be required to finance the government budget. Although this form of Central Bank freedom is helpful in most monetary control systems, it is an essential element of Inflation Targeting.

Governments, in certain circumstances, have an incentive to see higher inflation figures, as, for example, with a view to seigniorage revenue (Sherwin: 2000). In such cases it becomes increasingly difficult for a Central Bank to attain a low level of inflation when it cannot operate independently. This relates specifically to instrument independence. In order to have commitment from the government, the government should play a role in the actual setting of the target variable. This is a cardinal advantage of Inflation Targeting, in that the government can effectively "buy into" the target. This facilitates a process whereby the government does, or is at least motivated to do, its part to ensure the attainment of the target.

Moreover, within a fiscally driven economy the presence of seigniorage revenue creation may destabilise policy and create inflationary pressures within the economy, which makes effective Inflation Targeting untenable.

Sherwin refers to the concept of 'democratic legitimacy', which is created once the goal has been jointly set. Sherwin (2000: 4) states that *"[an] independent Central Bank specifically charged with maintaining price stability, effectively empowered and resourced to do the job, and held accountable against the achievement of that objective, is a fairly logical response to dealing with an inherent inflationary bias by institutionalizing a contrary bias in favour of long-run price stability."*

The importance of instrument independence and joint target setting by the Government and the Central Bank was emphasised by current Reserve Bank Governor, Tito Mboweni, in a speech in September 1999. He said, *"The inflation target may be jointly set by the government and the Central Bank. However, once the target has been determined the Central Bank should be free to use any instrument to achieve the ultimate objective"* (Mboweni, 2000: 3). Mboweni's statement is potentially troublesome in that it presumes that the Bank is free to use "any" instruments, as opposed to recognised "market-orientated instruments" only.

As an aside, the question could be asked if, in extreme circumstances, there could be a case for a ministerial right of intervention, even as this pertains to the potentially extreme use of policy instruments. Surely the Bank only has the mandate to use the recognised market-orientated instruments? And also: if the governor goes beyond his mandate the Minister of Finance, having subscribed to the target and having a certain responsibility for the target, should be able to intervene. The ministerial right of intervention would diminish further any remaining "democratic deficit".

4.2.2 NO COMMITMENT TO ANY OTHER NOMINAL VARIABLE

Within the Inflation Targeting framework the monetary authority is required not to have any commitment to *the level or path of any other nominal variable,* such as wages or the nominal exchange rate (Masson: 1997: 8). Exchange rate targeting, and particularly the maintenance of a fixed exchange rate, subordinates monetary policy decisions in favour of the exchange rate.
A pertinent choice is required between defending the exchange rate and steering inflation. An inflation target can increase certainty, as the markets are clear about the Bank's priorities. The

existence of an additional commitment to the exchange rate, on the other hand, cannot but create uncertainty as to the Bank's priorities. The rationale behind this can be found in certain circumstances where a government or its Central Bank aims to maintain a fixed exchange rate as well as aiming at an inflation target. As a result, the exchange rate may find itself placed under immense pressure and the Bank is required to decide which variable to defend. Whichever variable is protected – a decision that is usually based on failure to defend the other variable - results in an inescapable loss in credibility.

The exchange rate issue is particularly important in relation to developing economies. Factors such as globalisation and dollarisation necessitate that the exchange rate cannot be fully ignored. Mishkin (2000: 10), however, points out the reality that certain economies go too far and the exchange rates influences policy in ways that extend beyond what is ideal: *"Nonetheless, emerging market countries probably have gone too far for too long in the direction of limiting exchange rate flexibility – not only through the explicit use of exchange rate bands, but also through frequent intervention in the foreign exchange market. Responding too heavily and too frequently to movements in a "flexible" exchange rate runs the risk of transforming the exchange rate into a nominal anchor for monetary policy that takes precedence over the inflation target, at least in the eyes of the public..."* Mishkin also suggests a possible method for dealing with this problem. He asserts that this drawback can be countered by the Bank stabilising short-term exchange rate movements, whilst making it clear to the public that they will allow exchange rates to reach their market-determined level over longer time periods. The problem arises, in South Africa, that it is difficult to determine to what degree the Bank is stabilising the exchange rate as opposed to playing a role in its determination. This problem is exacerbated when large volatility exists within the economy.

4.2.3   THE EFFECTIVENESS OF MONETARY POLICY

The relationship between policy actions and inflation must be relatively stable and forecastable. The tools used by the authorities need to be effective in their control of inflation. The monetary policy instruments should be a market-orientated (i.e. essentially involve the Central Bank as a buyer or seller in freely operating financial markets) and avoid direct action, such as credit ceilings. The monetary policy instruments should have a stable relationship with inflation. (Debelle: 1997).   The reasons for this are obvious: if monetary policy is not effective in controlling inflation, or if the effect of policy measures cannot be adequately foreseen, inflation is not a variable that can be targeted with any accuracy.

4.2.4   WELL DEVELOPED MONEY AND CAPITAL MARKETS

Well-developed money and capital markets are needed for three reasons. Firstly, so as to avoid (a need for) "fiscal dominance". Secondly, because in the absence of such markets the Central Bank will not be able to conduct market-orientated policies. Thirdly, because only in such markets can the Central Bank's market operations be relied on to be effective without becoming disruptive.

Within a well-developed financial environment, policy changes by the Central Bank must effect money market interest rates in a clear and transparent manner.   According to Masson et al. (1997), shallow capital markets arise from government schemes to extract revenue from the financial system. Other manifestations of shallow capital markets include limited access to foreign funding.

4.2.5 A SOPHISTICATED MODEL FOR THE FORECASTING OF INFLATION TARGETING

The difference between Inflation Targeting and other monetary policy frameworks is that Inflation Targeting (ideally) makes forecasting explicit and transparent (Mboweni: 1999). Some form of forecasting model is probably the most essential of the requirements for Inflation Targeting in that the framework stands or falls, with or without forecasting and some predictability of the effect of policy measures. In South Africa the model is still in the process of being refined and only serves as the first point for discussion. In this case it is debatable whether the requirement is really being met.

4.2.6   IT SHOULD BE EMBRACED BY ALL

The decision to make inflation the focal point, within an Inflation Targeting framework (with major emphasis) should be authorised by all stakeholders. The Reserve Bank cannot attain the target alone, or can do so only at a price of unacceptable hardships. In order for price and wage setting to be influenced, participation from all areas is required. All stakeholders need to agree that explicit Inflation Targeting is the correct framework for the country at the given point in time.

The situation requires collaboration. A fundamental challenge to this collaboration exists. Both organised labour and the public may well be inadequately knowledgeable/informed and are only dimly aware of what they are agreeing to and the implications. Often, they do not take the target very seriously or wish to insist on provisos once the potential consequences of Inflation Targeting become clear to them. The point assumes a special importance in South Africa to the extent that labour union-driven pressures on labour costs, and the permissive effects of unduly labour-friendly legislation, can be held accountable for much of the apparent intractability of inflation in this country.

4.2.7 THE INFLATION RATE SHOULD NOT BE UNUSUALLY HIGH TO BEGIN WITH

The higher the inflation rate is, the more difficult and less accurate forecasting becomes (Mishkin: 2000). An unusually high inflation rate is potentially problematic in the case of South Africa. Inflation in most developed countries is significantly lower than that in South Africa.

An additional requirement suggested is that Inflation Targeting should be accompanied by increased accountability, transparency, and communication. Although these elements were introduced as advantages of Inflation Targeting, it is important to ensure that they are present, so as to reap the benefits of increased transparency (Debelle: 1997).

4.3 FEATURES OF THE INFLATION TARGETING STRATEGY

Inflation Targeting, as a monetary policy framework, has four central features. These include:

4.3.1 NATURE OF THE TARGET

The Central Bank and/or the Government, depending on the nature of the Central Bank's independence, must determine an optimal Inflation Targeting strategy and whether a point or band should be targeted. Various factors must be considered; the width of the band, for example, is vital in ensuring Central Bank credibility. It is suggested that if the effect of monetary policy on inflation is unclear, as it generally is in developing countries, a band would be preferable (Svennson: 1997). The crucial element is the width of the band chosen. This is important from a credibility point of view. If the target band is too wide, the Central Bank runs the risk of losing credibility, whereas if the band is too narrow the likelihood of missing the target is greater

(CREFSA: 1998). The band should depend on size of the economy and economic stability - the smaller and more unstable the economy, the larger the target band.

The second point deserving consideration is the speed at which inflation should be brought down. According to CREFSA (1998), the preferred speed of the disinflation process is gradual. In Chile, inflation was brought down from 25 percent in 1990 (Bogdanski: 2000); in the nine years of targeting since then, inflation has been brought down to 3 percent. In Israel, inflation lay at 20 percent in 1991, when Inflation Targeting was introduced. In 2000 inflation was roughly 3 percent[11] In New Zealand inflation has been targeted to decrease by 1,5 percentage points annually over a three year period.

Canada aimed at a two-percentage points reduction the first year, and subsequently at reductions of half a percentage point in successive 18-month periods. Inflation Targeting was adopted when inflation was about 5 percent. Within transitional economies inflation is decreased gradually. Poland targeted a decrease in inflation from 11 to 8 percent in the first year of targeting.

4.3.2   WHAT INFLATION MEASURE SHOULD BE TARGETED?

The measure of inflation to be targeted must be determined (see Table 2 for inflation indexes in selected countries). Headline inflation is more susceptible to external shocks, which may also falsify the picture of the current "inherent inflationariness" of the economy. A variation in the CPI, as in South Africa's case, may be an easier variable to target, although it may not be seen as, in the minds of the public, either the most relevant or the most readily understandable measure of inflation.

A relevant consideration in fighting inflation would seem to be: what notion or measurement of inflation is most likely to provoke defensive reactions (provoke the strongest defensive reactions) from price makers, that will themselves tend to sustain/ accelerate inflation? If economic subjects are concerned about their living standards (and therefore about a comprehensive measure of their cost of living), the index might well have to include items such as taxes (VAT), fines and levies and interest rates on various types of household debt. It is also relevant to note that rapid structural change in the economy, shifts in income distribution patterns, social changes and improvements in basic living conditions (as well as occasional

11 Israel's inflation reduction followed a gradual path, aided by positive supply side factors causing greater fortuitous reductions in inflation (CREFSA: 1998)

deteriorations in basic infrastructure), and rapid technological developments in consumer goods and services, would tend to make surveys of household expenditures outdated and render existing consumer price indices less relevant.

Table 2: Inflation indexes used in selected countries.

Country	New Zealand	Canada	United Kingdom	Sweden	Finland	Australia	Spain
Inflation measure	Underlying CPI	CPI	Retail Price excl. mortgage interest payments (RPIX)	CPI	Underlying CPI	Underlying CPI	CPI
Factors excluded fro CPI	Interest cost component, indirect taxes, government changes and significant changes in the terms of trade	None. Underlying inflation rate used operationally	Mortgage interest payments	None.	Mortgage interest payments, indirect taxes, govt. subsidies, house prices	Mortgage interest payments, indirect taxes, other volatile items	None.

Source: Masson et al. (1997)

4.3.3 FLEXIBILITY

Prior to the implementation of Inflation Targeting the crucial question of flexibility in the face of external shocks needs to be answered. A Central Bank can opt for setting certain escape clauses to allow for external shocks that are outside the control of the Bank. It must be noted, however, that much thought should be given to this in advance. If not, the Bank will lose credibility for the *ex post*, seemingly "opportunistic", adding of new escape clauses (and the Bank could excessively accommodate external shocks). *"The series needs to be considered accurate, timely and readily understandable by the public, but may also need to allow for individual price shocks or one time shocks that do not affect trend inflation which is what monetary policy should influence"* (Bernanke and Mishkin, 1997: 16).

Flexibility may complicate the issues. Too much flexibility may result in a loss of credibility[12].

4.3.4 PREDICTABILITY OF INFLATION

An important question when deciding on Inflation Targeting as a monetary framework is whether inflation is sufficiently predictable to be targeted. Bernanke (1997) points out two reasons why this is important. Firstly, due to lags between the policy action and its effect on inflation, under circumstances of low predictability the target would be difficult to hit and possibly, if the target _is_ hit, this _could be due to luck_ rather than to effective forecasting and an apt conduct of monetary policy. Secondly, if inflation is largely unpredictable and the target is missed, and for this reason credibility lost, it will be difficult to determine whether this occurred due to 'bad luck' or 'bad faith'. "_The Central Bank could argue that the wide misses were the result of bad luck, as opposed to bad faith, since the Central Bank's forecasts of inflation contain substantial judgemental components and such would be difficult to disprove_" (Bernanke and Mishkin, 1997: 18). This would weaken the argument that Inflation Targeting would increase accountability, with the result that building up credibility could be a difficult process.

Although it is generally accepted that the less predictable the inflation rate, the less effective targeting would be, Bernanke and Mishkin (1997) point out some observations in this regard:

- Statistical measures of predictability are likely to be sensitive to the monetary regimes in place. During the 1970s, inflation was more difficult to predict, in the face of oil price shocks and stagflationary pressures, "_without a clearly articulated framework, than in industrialized countries in the mid eighties, such as the USA, when a greater emphasis was given to low and steady inflation rates_" (Bernanke and Mishkin, 1997: 19). In the case of South Africa, it could reasonably be argued that the country has been _exposed to unforeseeable shocks over and above a reasonable degree_. An example would be friction within Africa and disturbances elsewhere on the African continent.
- The unpredictability of the goal variable is not an adequate reason for the use of intermediary variables in policy targeting. That is, just because inflation is unpredictable, this does not mean that monetary targets will be more predictable and should be used.

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12 It is noteworthy that many of the extremely successful Inflation Targeting Central Banks seem mostly to have been hesitant to respond in a stimulatory way to undershoots of the inflation target.

From an optimal control perspective, the best intermediate target is the current forecast of the goal variable (inflation), unless the unlikely circumstance exists that the intermediate target contains all the information relevant to predicting the goal variable (Svensson 1997a). As Bernanke et al (1997: 19) put it, *"from a strictly operational point of view, while it is unfortunate if the goal variable is hard to predict or control, no improvement is available by using an intermediate target."* While this point is valid, the converse is also true; high instability, unpredictability and uncontrollability of an intermediate target does not mean that an uncertain ultimate targeting framework would operate more effectively.

4.3.5   THE DEMOCRATIC DEFICIT

Closely related to Central Bank independence is the legitimate concern about the so-called, "democratic deficit". This relates to an independent Central Bank operating as a sort of mini government, "ruling" alongside the actual government but beyond the direct or indirect supervision and control of the people's parliamentary representatives. Concerns have been raised regarding the undemocratic nature of such a situation (Almeida and Goodhart: 1998). For example, the Central Bank may come to use its instruments in such a way as to aggravate an already dire real economy situation. If the government is opposed to this strategy, but the Central Bank refuses to make the necessary adjustments, the democratic nature of the country's economic management is compromised.

4.3.6   AN ANOMALY REGARDING THE SO -CALLED ESCAPE CLAUSES

As noted earlier, targets are subject to being missed due to unforeseen and (frequently) unforeseeable external and internal shocks which, in any case, would often be beyond the control of the monetary authority and may very well not allow for adequate countervailing action within relevant periods of time. Commentators suggest that because of this, Central Banks should specify "escape clauses". In circumstances when the inflation target is not, or does not appear to be, attainable, the Bank may enact an escape clause. These escape clauses have become subject to much criticism (McCullen: 1996).

A case in point is that of New Zealand. New Zealand is one of the best known inflation targeters in history. Its success, although fairly controversial, has become the subject of much literature in Central Bank economics.

Reasons for escape clauses concentrate on inflation targets being missed because of "bad luck." But targets may also be hit because of "good" or "bad luck", or missed despite "good luck." In other words, *performance should be evaluated as independent of all forms of luck.*

4.4 THE IMPORTANCE OF THE TECHNICAL REQUIREMENTS

The technical requirements set out by Masson et al. (1997) and others are undeniably important. They cannot, however, be analysed in isolation: elements in the socio-political environment, for example, may well be of similar or more decisive importance. Factors such as labour market conditions, unemployment or income inequalities based on race, which have strong effects (albeit difficult to measure) on the outcome of the policy framework, therefore need to be considered along with the more purely technical requirements.

4.5 SUMMARY

The application of Inflation Targeting depends on the fulfilment of a variety of preconditions. Factors such as an absence of fiscal dominance and the role assigned to monetary policy are vital in deciding on the implementation of Inflation Targeting. The nature of Central Bank independence impacts on the implementation of an Inflation Targeting regime. While these factors are important, circumstances that are unique to a country also need to be granted consideration. Given that their effects often cannot be clearly determined, there should be an understanding that such factors may impinge heavily on the success or otherwise of the chosen policy framework.

CHAPTER 5

COUNTRY EXPERIENCES WITH INFLATION TARGETING

5.1 PREAMBLE

Inflation Targeting has been implemented in a number of countries since the early 1990s. Both developed and developing nations are experimenting with the framework, and in most cases the experience to date *appears to be* positive. This section aims to summarise the international Inflation Targeting framework and determine the lessons that can be learnt for South Africa.

This chapter is important in that it creates a foundation on which Inflation Targeting in South Africa can be judged. The aims of this chapter are: to briefly note the operational features of a selected group of inflation targeters; to discuss, briefly, Inflation Targeting in developed countries; and, finally and most importantly, to analyse the application of Inflation Targeting in developing countries.

5.2 OPERATIONAL FEATURES OF THE INTERNATIONAL INFLATION TARGETERS

The following are countries that have adopted Inflation Targeting: Australia, Brazil, Canada, Chile, the Czech Republic, Finland, Israel, New Zealand, Poland, Spain, Sweden, and the United Kingdom.

Table 3 provides a breakdown of the operational features of the Inflation Targeting frameworks in selected countries from this group. In all the cases shown, the target ranges/bands or their midpoints for inflation are below the point target (i.e. the average of the upper and lower band: (3+6)/2=4.5) selected for South Africa. The majority of the countries have opted for a target that is close to the presumed price "stability" range of 0-2 percent inflation. South Africa is among the more recent adopters of the framework, with the majority of countries having adopted the new framework in the early 1990s.

The dominant index used is the CPI; however, exclusions from the CPI vary. In New Zealand the exclusions are fairly comprehensive, including an *interest cost component, indirect taxes,*

government charges, and "significant" changes in the terms of trade. In contrast, no exclusions are used in Canada and Sweden.

The price level measure used in the United Kingdom is very similar to that of South Africa: mortgage interest payments are excluded from the CPI for the same reason as in South Africa, that is, because of the (perverse) relationship between mortgage rates and inflation that tends to arise from the use of interest rates for fighting inflation. In Finland and Australia, both of which exclude mortgage payments, indirect taxes are also excluded. Finland additionally excludes government subsidies and house prices and Australia directly excludes the prices of volatile items.

Internationally the design of Inflation Targeting frameworks has, to a greater or lesser degree, generally involved government participation.

Communication through the publication of reports differs between countries. Reports are published mainly on a quarterly basis e.g. in New Zealand, the United Kingdom, Sweden and Brazil. In certain countries, for example in Finland and Australia, inflation reports are not published at all. The degree of publication of forecasts differs. In Sweden, Finland, Australia and Spain, inflation forecasts are not published at all, whereas in New Zealand, the United Kingdom and Brazil the Banks do publish forecasts to varying degrees of detail and exactitude.

Table 3: Summary of Inflation Targeting frameworks in selected countries.

Country	New Zealand	Canada	United Kingdom	Sweden	Finland	Australia	Spain	Brazil	Czech Republic
Date of implementation	March 1990	February 1991	October 1992	January 1993	February 1993	April 1993	Summer 1994	July 1999	May 1998
Current target	0-3 percent	1-3 percent	2.5 percent	2 percent	2 percent	2-3 percent	Less than 3 percent	4 percent	1 - 3 percent.
Inflation measure	Underlying CPI	CPI	Retail payment index, excluding mortgage payments (RPIX)	CPI	Underlying CPI	Underlying CPI	CPI	IPCA	CPI
Exclusions from the CPI	Interest cost component, indirect taxes, government charges and significant changes in the terms of trade	None: underlying inflation rate used operationally	Mortgage interest payments	None	Mortgage interest payments, indirect taxes, government subsidies and house prices	Mortgage interest payments, indirect taxes, other volatile items	None		Certain exemptions of regulated prices
Target announcement	Defined in the policy target agreement between the minister of finance and the governor of the Central Bank	Joint agreement between minister of finance and governor of the Central Bank.	Chancellor of the exchequer	Bank of Sweden	Bank of Finland	Reserve Bank of Australia	Bank of Spain	National monetary council an the minister of finance	Czech National Bank and Government
Inflation reports	Quarterly since 1990	Twice yearly since 1995	Quarterly since 1993	Quarterly since 1993	No	No	Semi-annual	Quarterly	Quarterly
Publication of forecasts	Yes	No	Yes	No	No	No	No	Yes	Yes

Source: Various

5.3 LESSONS FROM DEVELOPED ECONOMIES

This section concerns itself with the lessons learnt from developed economies that have adopted Inflation Targeting as their monetary policy framework.

New Zealand's experience supports the importance of flexibility. According to the Reserve Bank of New Zealand, controlling the decrease in the inflationary trend was attained with significantly more ease than trying to rigidly control inflation within a very narrow range. An important lesson from New Zealand, regarding the inflexibility of the inflation target, is that if the framework is too rigid, a potential exists for instrument instability, resulting from the pressures of maintaining the rigid framework. New Zealand's experience has been positive: inflation has fallen from volatile double-digit rates, to low and stable single-digit levels. The experience of New Zealand underscores the importance of discretion in monetary policy actions. The Bank blames a lack of discretion in its operations for many of its credibility losses during certain stages of the framework. A problem in New Zealand, nevertheless, was that within the period of financial crisis in 1997/1998 the Bank operated quite rigidly. In the face of falling economic growth and the possibility of the country moving into a recession, the Bank maintained a very tight monetary policy.

Inflation Targeting in Canada has shown great resilience. While Canada has experienced negative supply shocks in addition to a strong depreciation of its currency, inflation has still been kept in check through a strong coordination of the policies of the Central Bank and the Department of Finance (with a strong focus on accountability). Through its transparency the Bank has been able to communicate the difference between once-off shocks and changes in the trends in long-term inflation. Canada, like Germany, followed a reasonably flexible Inflation Targeting approach, - i.e., the missing of targets did not result in punishment. Canadian policy incorporated significant tolerance of shocks, causing deviations from the targets but enabling the Bank to stabilise economic indicators.

The United Kingdom's experience with Inflation Targeting has important lessons for other prospective targeters. During 1996, the Bank of England operated without instrument or "operational" independence. That is, the control of monetary policy instruments was held in the hands of the Government. This impinged on accountability and created uncertainty as to the role of government in the targeting exercise. It was, indeed, uncertain whether and to what degree political decisions were allowed to influence monetary policy. According to Mishkin and Posen (1999), one of the main reasons for the success of the Bank of England, despite hindrance of its monetary policy

actions, was the way in which the Bank came up with innovative ways of communicating monetary policy decisions to the public.

Although the benefits of Inflation Targeting are well documented, it is, again, important to note that when the inflation performance of targeters is compared with that of the G seven countries, (excluding the UK and Canada), the results do not seem to be remarkable (see figure 3).

Figure 3: Global inflation performance
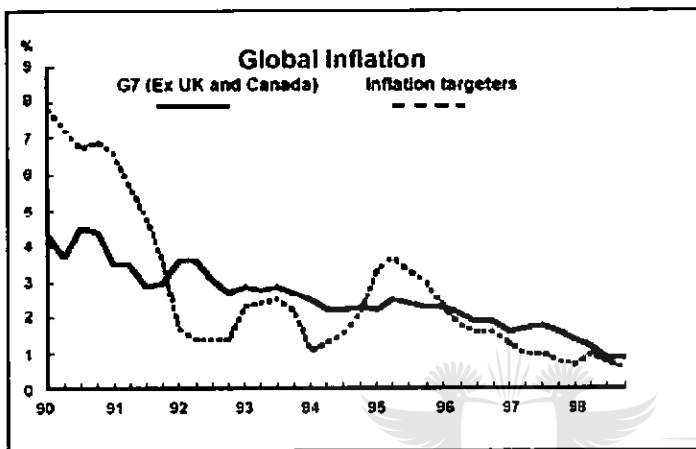
Source: Gensec global report 2000

5.4 INFLATION PERFORMANCE

Figure 4 depicts the inflation performance of selected developed economies that have been practising Inflation Targeting.

Figure 4: Inflation performance in developed countries
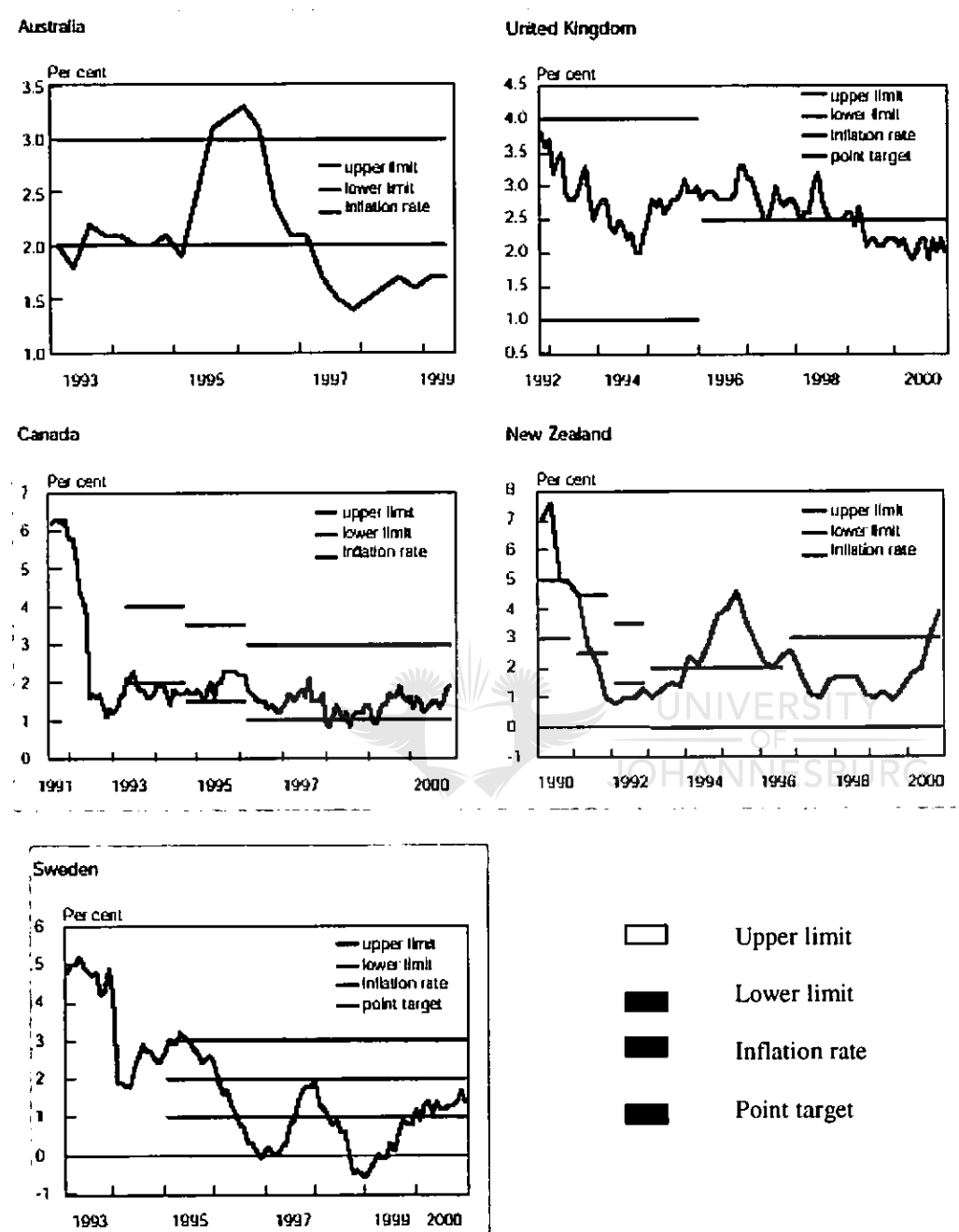
Source: SARB 2001

The trends shown appear to reflect positively on the benefits of Inflation Targeting, and to do so specifically in the case of Sweden and the United Kingdom. It is important to note, however, that while inflation has, in the majority of the countries concerned, been reduced quite impressively, the inflation rates in these countries at the time of their introduction of Inflation Targeting were mostly

well below those currently prevailing in South Africa. Another important fact to note is that while the graphs trend downwards, the absolute declines in the inflation rates shown are actually quite limited.

5.5 EMERGING MARKET FACTORS

According to the IMF the two main features defining the scope for independent monetary policy are:

1. Absence of Fiscal Dominance; and
2. Absence of targeting other nominal variables, which may be in conflict with the inflation target.

These factors are generally difficult to measure and in certain circumstances can reinforce one another. According to Masson et al. (1997), economies with excessively high inflation rates over a long term will generally be accommodative, and monetary policy will be restricted by fiscal policy. The immediate step for such an economy would be the implementation of fiscal discipline, the ending of the monetary accommodation process, and the choice of a nominal anchor to influence inflationary expectations. *Only once inflation has been brought down to a moderate level should Inflation Targeting be considered*.

When an economy uses any sort of fixed exchange rate, and thus subordinates monetary policy to the attainment of this goal, Inflation Targeting, in terms of the IMF framework, would not be possible[13]. This applies equally for a country within a monetary union, requiring a certain exchange rate level. In a conflict, priority will be given to the exchange rate and the inflation rate will be subordinated to that of the country's trading partners.

The above assessments are not, however, as easy to determine as it would seem. It is difficult to ascertain, particularly within developing economies, what priority may be given to a crawling, managed or dirty float or exchange rate peg.

Recent studies by Masson (1995) and Fry et al. (1996) show that principles relevant to developed Central Banks have limited applicability to their developing country counterparts. This is primarily due to; seigniorage revenue, shallow capital markets and fragile banking systems.

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13 Exclusion here is Israel, which targets the inflation rate, while simultaneously having an exchange rate target.

- Seigniorage Revenue

Seigniorage revenue is a clear manifestation of fiscal dominance. In developing nations, there is a greater possibility for governments to raise revenue through this channel. This is due to a number of factors, including (Masson: 1997): unstable sources of tax revenue and a narrow tax base, poor tax collection facilities, and unequal income distribution between rich and poor. Countries with weak fiscal management, who find it difficult to cut Government spending and operate with budgetary discipline, will generally fall within this category (see table 4.)

- Shallow Capital Markets

Another manifestation of fiscal dominance is the Government's creation of shallow capital markets, through a variety of non-market policies, including: interest rate ceilings, high reserve requirements, and a compulsory placement of public debt. The nature of causality can obviously work in reverse, that is, due to limited access to other forms of capital, such as international capital markets, governments within developing countries may be forced to use seigniorage revenue and other forms of what the IMF refers to as financial repression.

- Fragile Banking Systems

Fragile banking systems will generally exist as a result of forms of financial repression. This is highlighted in periods of financial reform, when the choice of policy priorities will come into question. Financial profitability will not, in the short run, be compatible with attaining price stability, making it imperative to specify policy goals prior to financial reform (Masson: 1997)

Table 4: Seigniorage Revenue in Developed and Developing Economies

Country	CBI rank 1980s 2/	Seigniorage to GDP Measure I 3/	Seigniorage to GDP Measure II 4/	Inflation tax rate 5/	Real interest rate on deposits 1980-89 6/ geometric average	Real interest rate on deposits 1980-89 6/ standard deviation	Broad Money to GDP	Nom.GDP per capita (US$) 7/
Denmark	1	0.50	0.22	4.8	2.7	1.4	56.9	33,034
Germany	2	0.44	0.29	3.0	2.6	0.9	59.8	29,565
United States	3	0.37	0.26	4.5	4.8	1.8	64.3	27,574
Canada	4	0.19	0.22	4.7	4.3	1.5	49.6	19,249
Norway	5	0.28	0.36	5.7	-0.2	5.1	57.9	33,490
Sweden	6	0.65	0.47	6.4	2.5	2.6	51.4	26,070
United Kingdom	7	0.20	0.25	5.7	0.7	2.1	70.0	18,986
Australia	8	0.42	0.32	5.8	3.1	2.9	49.9	19,257
France	9	0.25	0.31	5.1	-0.1	3.3	67.9	26,829
Hungary	10	2.52	3.69	12.7	-1.8	2.2	44.0	4,354
Spain	11	1.61	1.30	7.7	0.9	2.4	76.1	14,465
New Zealand	12	0.12	0.23	7.5	2.1	4.2	47.9	16,650
Greece	13	2.37	1.70	11.6	-3.1	4.1	49.9	10,947
Thailand	14	1.05	0.44	5.1	6.0	5.0	61.4	2,728
Nigeria	15	2.10	2.19	20.3	-6.1	9.2	27.5	692
Tanzania	16	3.01	3.00	23.0	n.a.	n.a.	35.5	146
Kenya	17	1.71	1.31	12.8	0.1	4.8	31.6	302
Philippines	18	1.40	0.95	11.1	-0.3	10.9	32.6	1,072
Nepal	19	1.64	0.89	8.3	n.a.	n.a.	26.3	207
Ghana	20	2.38	2.42	26.2	n.a.	n.a.	15.4	363
India	21	2.12	1.30	8.7	-0.3	2.7	45.7	345
Zimbabwe	22	1.26	1.07	14.7	-4.6	5.5	28.9	541
Egypt	23	5.66	5.10	14.1	n.a.	n.a.	86.3	1,000
Israel	24	1.57	1.60	33.1	n.a.	n.a.	78.8	15,689
South Africa	25	0.68	0.58	11.9	n.a.	n.a.	55.9	3,153
Indonesia	26	0.85	0.52	8.5	5.4	6.1	29.8	1,034
Costa Rica	27	4.18	3.32	18.1	n.a.	n.a.	41.4	2,516
Korea	28	0.87	0.51	6.8	4.0	4.6	37.5	10,146
Uruguay	29	2.88	3.06	37.2	4.6	9.1	48.6	5,598
Zambia	30	2.86	3.04	33.8	-14.8	9.2	27.6	420
Peru	31	5.70	5.57	52.7	-36.9	22.6	19.9	2,363
Mexico	32	2.96	3.22	29.6	-6.2	13.3	26.1	3,164
Venezuela	33	1.82	2.00	21.8	-7.3	12.8	33.3	3,529
Turkey	34	3.02	2.98	36.5	-5.0	14.5	26.5	2,696
Botswana	35	1.81	0.95	10.7	n.a.	n.a.	26.6	2,806
Chile	36	1.66	1.34	15.9	7.8	9.6	37.0	4,868
Brazil	37	5.13	5.26	72.1	-5.2	8.3	29.3	4,370
Argentina	38	3.66	3.66	55.5	-16.1	15.5	19.3	8,139

Sources: CBI rank from Cukierman (1992), Table 21.1; annual data on real interest rates from Easterly et al. (1994), Statistical Appendix, Table A.4; all other series: authors' calculations based on IFS and WEO databases.

1/ Period averages, in percent; unless otherwise indicated.

2/ Ranking of central banks by overall index of independence during the 1980s as reported in Cukierman (1992), Table 21.1. Countries in the list ranked from high to low overall central bank independence.

3/ Annual change in the monetary base divided by nominal GDP, except for Argentina, Chile, Israel and Uruguay (see Table 3, footnote 5).

4/ Annual monetary base multiplied by the inflation tax rate and divided by nominal GDP, except for Argentina, Chile and Uruguay (where annual M1 was used) and Israel (where foreign currency deposits were excluded from the monetary base).

5/ Defined as: [CPI inflation/(100+CPI inflation)], a bounded measure of the real losses on holdings of money balances.

6/ Geometric mean and standard deviation calculated from raw series on annual ex-post real returns on domestic currency deposits in the banking system in the period 1980-1989 reported in Easterly et al. (1994); raw series for Hungary, New Zealand, United States and Uruguay obtained from other sources (see Appendix I).

7/ Nominal GDP in current US dollars of 1995 divided by total population.

Source: Masson et al. 1997

According to Masson's (1997) analysis a few points can be made:

- Reliance of seigniorage revenue was similar for the seven countries that adopted Inflation Targeting to that in the advanced nations. Lower inflation was in line with decreasing inflation generally.

- Reliance of seigniorage revenue for "high income developing nations", including South Africa, was not dissimilar to that of the seigniorage revenue of the seven Inflation Targeting nations.

5.6 CONFLICT WITH OTHER POLICY OBJECTIVES, WITH SPECIFIC REFERENCE TO DEVELOPING ECONOMIES

An important aspect deserving consideration by the monetary authorities when implementing Inflation Targeting is the nature of the exchange rate regime chosen and the *degree of capital mobility*. Inflation Targeting cannot be successfully implemented when a fixed exchange rate (or variation) exists, due to conflicts that *will* arise when the currency is under pressure. Volatility in capital flows has an immense potential impact on the success of Inflation Targeting - when the inflation target is not the only nominal anchor. According to Masson et al. (1997), the tendency to move away from fixed exchange rates has not decreased the importance of exchange rate factors when setting monetary policy. They point to the fact that *financial reform in developing nations has increased volatility in money demand*. The question of whether inflation should be the key goal for these economies, or whether a trade-off approach should be found between low inflation and external competitiveness, becomes relevant[14].

Masson et al. (1997), assert that the issues of importance are:

- The ranking of policy goals.
- Inability to accurately forecast inflation.
- Uncertain relationship between the policy and inflation.

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14 An additional problem especially in developing countries is the uncertainty of the reaction function and the transmission mechanism between policy changes and their effect on inflation.

According to Masson et al. (1997), the first of these factors is of the greatest importance. Only in times of crisis will the Bank's true preferences be revealed: until then it is difficult to determine what objective holds priority.

5.7 DISCUSSION OF CERTAIN EMERGING MARKET EXPERIENCES

There are various reasons for the adoption of Inflation Targeting in developing economies. In Chile, for example, the Chilean Central Bank, on gaining independence, was faced with a situation of high and rising inflation, due to the expansionary policies of the previous year as well as with higher oil prices[15]. The Czech Republic embarked on a formal process of Inflation Targeting because of heavy speculative attacks on the currency which forced it to abandon its fixed exchange rate regime and to move to an unambiguous anti-inflationary alternative[16]. In Brazil, an Inflation Targeting framework was adopted in 1999, soon after a move had been made to a floating exchange rate system[17]. The lack of fiscal reform left Brazil open to confidence crises[18] due to monetary and financial instability[19]. The fact that the Bank had twice before (unsuccessfully) used the exchange rate as a stabilisation tool, led the Bank to embark on an Inflation Targeting framework in the early 1990's, so as to create a nominal anchor. Due to the _extremely high level of inflation in Chile_, the targets were initially announced as inflation guidelines (meant to get the inflation down to moderate levels before the introduction of Inflation Targeting proper). The targets (guidelines) were initially set _at over 20 percent for 1991_ and were allowed to decrease slowly to 3.5 percent by the end of the decade. The Bank attributed its success to sound fiscal policies (with a fiscal surplus, every year, from 1991-1997) and strong financial markets. According to Casteleijn (2000), economic policies allowed Chile to achieve growth rates of 8 percent. The Chilean miracle stopped, however, during the international financial crisis of 1998. The Chilean Central Bank, dead set on its Inflation Targeting framework,

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15 See: Landerretche, Felipe Morandé, and Schmidt-Hebbel, 2000

16 See Jonáš (2000), Coats (2000) and Orlowski (2000)

17 The Brazilian economy has had a turbulent experience, inflation rates reached extremely high levels in the 1990s, peaking at 1319 percent in the period 1992 – 1995. The average CPI inflation rate during the period 1980 to 1995 amounted to 731 percent (Masson et al: 1997)

18 Due to the disarray in Brazil, a process of capital flight ensued which resulted in severe financial and monetary instability. The Central Bank, in order to restore confidence in the economy, increased interest rates and negotiated a loan with the IMF totalling US $ 41 billion. Because of the continued drop in investor confidence and the devaluation of the Brazilian Real, the crawling peg was abandoned. According to the Governor, the country was at a real risk of severe increases in inflation, with forecasts of inflation rates of up to 80 percent.

19 See: Bogdanski, Tombini, & Werlang. (2000); Bryan & Cecchetti (2001); Carneiro, C.D., (2000); Chauvet (1999) and Figueiredo (2001)

refused to ease its monetary policy. Preferring rather to raise interest rates, it *forced the country into a recession* (for the first time in 15 years). At that stage Chile had an exchange rate band.

There are two key points to be noted from the experience in Chile:

There can be no commitment to any nominal anchor, not even a low-level exchange rate target, in addition to an inflation target.

Undershooting the inflation target is just as bad as, if not worse than, overshooting the inflation target.

A country especially deserving of analysis from South Africa's point of view is the Czech Republic. The Czech Republic underwent a period of uncertainty during which no monetary policy framework existed, while attempts were made to anchor inflation and the exchange rate through "transparency". Transparency was intended to be achieved by publishing reports on forecasted inflation rates. However, with no clear monetary strategy, the Bank found this process difficult. This caused it to look at Inflation Targeting as a new framework for its monetary policies. [20]

The motivation for the adoption of Inflation Targeting in the Czech Republic was twofold. Firstly, the Czech National Bank was in a position where it could not return to a fixed exchange regime. According to Jonáš (2000), it was felt that in an environment with volatile capital flows the Bank could not effectively control inflation. [21] If the nominal exchange rate was very stable, this could actually make it harder to bring inflation down. Uncertainty, however, still exists within the Czech Inflation Targeting environment. This is due to *deep institutional changes,* including the emergence of new types of financial assets and players.

Various problems exist for the Czech Republic. In a country that has had significant periods of high inflation, the Bank has not established the credibility required for anchoring inflationary expectations. [22]

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20 A similarity can be drawn here between the Czech Republic and South Africa, this being both countries' susceptibility to speculative currency attacks and specifically to the so-called Asian contagion. It must, however, be noted that the SARB did not initiate Inflation Targeting processes in response to any such development. Dr Stals, in fact, stated in 1998 that South Africa was not yet ready for Inflation Targeting.

21 Although within the fixed exchange regime the Bank was able to bring inflation down from high to moderate levels, the Bank, according to the author, was unable to use this approach for reducing the inflation rate further from moderate to low levels.

22 The Czech National Bank (C.N.B) faced significant criticism for the implementation of a monetary regime used primarily by advanced economies. It was stated that for a transitional economy such as the Czech Republic, low inflation is not number one on the list of priorities. In defence of the Bank, certain proponents, including Jonáš, argue that low inflation was necessary for those

The inflation measure targeted by the Czech Republic is the so-called "net inflation". This concept measures changes in the Consumer Price Index (C.P.I) from which certain regulated prices have been excluded.[23]

Jonáš (2000) raises a relevant point relating to the IMF criteria for the forecasting ability of the Central Bank. As has been duly noted by the IMF, the Central Bank must have an inflation-forecasting model which is effective in forecasting future inflation, because the inflation forecast serves as the intermediate target of monetary policy. According to Jonáš (2000), however, inflation-forecasting is a difficult task within the so-called transitional economies, *due to the rapid intrinsic structural changes that are taking place within the economy*, and the short history of the markets, given that they have only recently been freed from the constraints of central planners. Moreover, the *relationships between economic variables, such as prices and wage levels and other economic indicators, within these economies are generally unstable*.

It is suggested here that a *similar problem*, although probably in notably milder and less heavily concentrated forms and to lesser degrees, should be assumed to have affected the South African economy over the past several years, as South Africa and its economy have been experiencing the change-over to the country's post-1994 constitution, government, and governmental social and economic policies. As in the Czech case, these changes and their effects on private expectations, motivations and aspirations cannot but have had some significant effect on the correct specification, validity and accuracy of behavioral equations (and their parameters) in South African econometric models. This means that these changes should be assumed to have impinged of the forecasting powers of earlier models, *as well as, possibly*, having influenced the underlying inflationariness of the economy and its prospective inflation rates. As such, these matters are discussed further in Chapter Six.

Unlike many other Inflation Targeting countries, the Czech National Bank (CNB) has not excluded agricultural and energy prices from its prime index for inflation-measuring purposes. It is felt that

European countries that wished joining the European Monetary Union. In such cases it is important for the less developed economies concerned to lower their exchange rates to levels compatible with the E.U. The EMU did not allow a greater than 15 percent currency deviation from the Euro by its member countries. While this was a fairly large deviation, without fairly low and stable inflation rates the exchange rate could conceivably have shown such digressions.

23 In 1997 the total "basket" of the CPI consisted of 754 goods and services of which 91 were subject to price regulation. Net Inflation therefore covered 663 goods, or close to nine tenths of the CPI (Jonáš).

this would make changes in this index too far removed from headline inflation, which the public understands and relates to[24]. This approach is questionable inasmuch as imports account for over 40 percent of GDP. One way or another inflation was left highly unguarded against supply shocks. This "error" was recognised in 1998, and rectified. The Bank then announced a list of exclusions that serve as escape clauses for the Central Bank, although the Bank made it clear that normally it would still try to counteract the price-raising effects of the unforeseen developments concerned[25].

The *absence of solid relationships between economic variables* will certainly make Inflation Targeting more difficult, although it is uncertain whether this can also make Inflation Targeting unworkable.

While the CNB produces inflation reports, these reports do not explain how the inflation forecasts have been made, nor do they reveal how Bank officials have voted. This boils down to a lack of transparency[26]. Much debate exists in the Czech Republic over the optimal rate of disinflation, which, as noted by Jonas (2000), to a large degree is a subjective value[27].

Inflation in the Czech Republic has decreased massively since the implementation of Inflation Targeting. Causes of this massive decrease in net inflation, however, have partly consisted of the external shocks, which are believed to have made the inflation rates to be two percentage points lower than they would otherwise have been.

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24 This is interesting from a trade-off point of view: here the Bank has not totally moved away from the generally measured inflation indicator, yet it will still remain vulnerable to exogenous shocks, uncontrollable by monetary policy

25 Escape clauses would cover exceptional and unpredictable developments that may cause a deviation from the target and are beyond the control of monetary policy. Factors thus deemed to be outside the responsibility of the Central Bank include:

- Changes in predicted world prices of commodities
- Unpredicted, exogenous changes in exchange rates
- Changing conditions in agriculture and natural disasters
- Other unexpected factors causing demand push or cost pull inflation.

26 It seems that this is a fairly common anomaly in developing as well as transitional economies, (such as Poland) and even South Africa.(Jonáš).

27 Judgments concerning this optimal rate would base themselves on the so-called sacrifice ratio, which would depend on variables such as the structural nature of the economy, aspects of wage determination, monetary volatility, credibility, and other quantities.

5.8 CONCLUSIONS AND LESSONS REGARDING INFLATION TARGETING IN EMERGING ECONOMIES

The analysis above illustrates issues relevant to South Africa. Although Inflation Targeting has found its way to a number of developing economies, the jury is still out on the applicability of this policy framework to these countries, or on these countries' suitability for this policy framework.

Developing countries show notable differences in many respects that may be traceable to their divergent political and economic histories and encompass their fiscal, monetary and financial systems and their social, political and economic organisations, as well as, importantly, the nature of their transformations on the road to higher income status. A general evaluation of the appropriateness, success or otherwise of Inflation Targeting in emerging economies will therefore clearly not yield either a simple or unambiguous answer! The manner of application of the framework also varies considerably among countries. Thus, for example, the price index used by the Czech Republic excludes administered prices. While probably done for good reasons, given country-specific factors, the resultant rate of increase in the "general" price level cannot be regarded as a relevant measure of inflation for much, or even most, economic decision-making. Also, government is not kept in check as much as would otherwise be the case. A major point of concern in the Czech Republic is the lack of a clear understanding of the effects of monetary policy on the economy, given the effects of structural change.

The Brazilian Inflation Targeting effort, while inflation has fallen, is still in its infant stage, and many doubts exist about its eventual chances of success (again major _structural problems_ as well as financial fragility). In Chile, Inflation Targeting was perhaps followed too stringently, with tight monetary policy pushing the country into a recession. In the Czech Republic, positive external shocks were largely responsible for the fall in inflation.

Although the developing country analysis is limited, the preliminary findings are as follows:

- While IMF guidelines are indeed useful in analysing the viability of Inflation Targeting, factors specific to the country concerned are at least as important.
- Although Inflation Targeting may indeed be a framework for some developing economies, it should at all times be approached with considerable caution. The success or failure of the exercise will be dependent on, among other factors, the manner in which the targeting exercise is implemented, as well as on factors that are unique to the country concerned.

5.9 SUMMARY

Internationally, on the face of it, Inflation Targeting has proven to be successful. The manner of implementation differs widely across countries. While the majority of countries that have implemented Inflation Targeting have seen falling inflation rates, whether and to what degree the decreases are attributable to Inflation Targeting is uncertain.

Specific concerns exist for developing economies, given the greater degree of this volatility. Factors such as shallow capital markets and reliance on seigniorage revenue are concerns specifically related to developing economies. While inflation rates have been decreased in the developing economies analysed in this chapter, whether this is sustainable cannot yet be determined. The main conclusion is that each case needs to be considered on its merits, depending on the circumstances in the specific country. Policy makers need to determine factors such as the sacrifice ratio, to ensure that the framework is appropriate and whether the country would not be better off creating a balance between a focus on growth and on inflation.

CHAPTER 6

SOUTH AFRICA AND INFLATION TARGETING

6.1 PREAMBLE

Chapter 6 draws from the information and lessons from the previous chapters to analyse Inflation Targeting in South Africa. This section starts by looking briefly at monetary policy in South Africa over the past fifty years. It incorporates an analysis of the transmission mechanism, while analysing where South Africa fits in, in terms of the requirements for Inflation Targeting. The final section looks at peculiarities and problems with Inflation Targeting in South Africa. It concludes with a proposition that Inflation Targeting is not particularly suitable as a framework for South Africa and briefly sets out an alternative approach.

6.2 THE PROMISE OF INFLATION TARGETING

According to Reserve Bank Governor Mboweni (6 September 1999), the advantages of Inflation Targeting in South Africa are the following: firstly, if the inflation target is jointly set by the government and the Central Bank, policy coordination is improved between the parties. In South Africa's case, where there is uncertainty on the coordination of monetary and fiscal policy, this would secondly provide benefits not only for monetary policy, but also for the public's understanding of the interaction of the government and the Reserve Bank. But government economic policy also comprises of policy in the areas of *labour relations and employment conditions*, tax policy as distinct from fiscal policy, attitudes on property rights, etc. – which could conceivably contribute to a general environment that would require unduly high levels of unemployment for any given anti-inflation result.

It is, therefore, necessary to look beyond the purely technical requirements and technical competencies of the system and the authorities. Factors such as the nature of inflation play an important role. Supply side inflation, by its nature, is normally likely to be at least beyond any direct grasp of the control of the South African Reserve Bank's monetary policy instruments.

Although South Africa seems to meet the technical requirements for Inflation Targeting, other factors may complicate the framework. An aeroplane, for example, may meet all technical and safety specifications, but may be precluded from reaching its destination if its pilots are not entirely competent or if the passengers constantly interfere with the controls or seek to hijack the plane.

Prior to the adoption of Inflation Targeting, Mboweni (1999) stated, firstly, that a coordinated approach would bring about the best results. The framework consequently envisaged strong coordination between the actions of the parties. Secondly, he asserted that Inflation Targeting would "clarify the intentions" of monetary policy, resulting in enhanced transparency and thereby in improved private sector planning. Finally, Inflation Targeting in the Governor's views would ensure that the Bank would be suitably disciplined and become more accountable for its actions. Many of these factors, to be sure, would seem to assume an element of faith. At the same time it is submitted here that, conceivably (and due to other factors), the process in its South African context may show itself to be overcomplicated and may, eventually, prove less fruitful than it is currently still expected to be.

6.3 A BRIEF HISTORY OF MONETARY POLICY IN SOUTH AFRICA

Meijer divides South African monetary policy in the post-World War Two period into three segments, ending in 1998. I have included two additional periods from 1999 to the present. This recent period covers the change in the operational system of the Reserve Bank in 1998 and the introduction of the Inflation Targeting framework in 2000. This section stylises briefly the respective periods.

In the period following World War Two, South Africa, like most western economies, held the belief that stimuli to growth were the most significant policy objectives, while inflation (due to its being relatively low) had little importance placed upon it. Interest rates were kept low, in order to maintain low business costs, while little significance was placed upon money supply. The exchange rate was fixed in terms of the Bretton Woods System.

Given the notably less sophisticated nature of the South African economy at that time, monetary policy operated through changes in Bank rate and the commercial banks' prime-lending rate, as well as through moral suasion.

②

The period from the mid-sixties to the end of the seventies saw a shift in monetary policy away from market measures to non-market elements. As inflation slowly began to rise, with output still being high, slightly greater prominence was placed on the problem of inflation – not, however, on the demand side for money and bank credit. (The authorities were more or less Keynesian in that they sought to restrain monetary demand for goods and services.) The two primary elements of control over the extension of bank credit then became the banks' liquid asset requirements and direct credit ceilings. It was within this period that disintermediation (in the sense of a bypassing of the traditional commercial banking system) began with the advent of new varieties of financial intermediaries, the so-called "near-banks."

Emphasis was placed on the money creation process, and the majority of the new financial intermediaries were integrated into the Banks Act and Building Societies Acts of 1965. The period was largely Keynesian, given that interest rates were not believed to be useful in influencing savings and investment decisions and people's money holdings were believed to be passive.

③

The next period in South African monetary policy history (approximately 1980 to the late 1980s) saw a movement away from direct controls towards a more market-orientated system. Increasingly, countries began to feel inflationary pressures, due not least to the second-round effects of the oil crises of '73 and '79. Internationally, consensus emerged on the significance and necessity of higher interest rates as an essential means for control over the – sometimes targeted – money supply. Emphasis was placed on deregulation of the banking system. The De Kock Commission (appointed in 1977, but submitting its final report only in 1984) stressed the need for "freely operating financial markets" and for a lowering of the reserve asset requirements, held by banks to more market – and business – determined levels. The system during this period operated through a cash reserve control system: the Bank set the _cost_ of "high-powered" money and did no longer seek to control the country's money supply or the volume of bank credit in any _direct_ manner. Monetary targeting (i.e. targeting of the M3 money stock) was introduced in 1986.

④

In the following period, due primarily to balance of payments developments, the need arose to tighten the Bank's policy stance. The Bank's mission, as stated by the South African Reserve Bank in 1990, now was to 'protect the internal and external value of the Rand'. This objective was meant to serve the interests of economic growth. Financial stability, being essentially an absence of both inflation and deflation in the general price level, was striven for. Through the Reserve Bank's emphasis on stability and the maintenance of an orderly financial system, a stable exchange rate was to follow. Money supply targets continued to be set for growth in M3 money supply. Due to

difficulties in attaining the targets, (not least because of policy lags), they came to be referred to as money supply guidelines. The money supply guidelines, as the name implies, were not set as inflexible, with the ability to impact negatively on economic growth, but rather as the Reserve Bank's ideal rate of expansion of the money supply in the guideline year. While the targets were not rigidly sought after, they were meant to communicate the Bank's stance on monetary policy.

Table 5 illustrates the Bank's rather limited success in attaining its targets/guidelines.

Table 5. M3 money supply guidelines, actual outcome and inflation					
Per cent					
Year	Lower limit	Upper limit	Outcome	CPI	Core CPI
1986	16	20	10,1	18,6	22,6
1987	14	18	15,5	16,1	16,6
1988	12	16	**26,5**	12,9	13,7
1989	14	18	**23,5**	14,7	12,8
1990	11	15	12,0	14,4	15,3
1991	8	12	**14,7**	15,3	18,9
1992	7	10	8,8	13,9	16,8
1993	6	9	5,6	9,7	12,6
1994	6	9	**14,6**	9,0	8,9
1995	6	10	**14,3**	8,7	7,9
1996	6	10	**15,2**	7,4	7,4
1997	6	10	**17,4**	8,6	8,8
1998	6	10	**14,3**	6,9	7,5

Source: Casteleijn (1999)

The table above shows the money supply guidelines relative to the actual outcomes. During the thirteen-year period concerned, the actual outcomes fall outside the target range no fewer than eight times. The target was missed consistently from 1994 to 1998.

Dr Stals has explained the problems with money supply targeting noting that" [these] developments, however, impinged on the credibility of the continued use of *M3* as the intermediate target of monetary policy in South Africa, and opened up the way for unreasonable criticism of monetary policy decisions taken by the Reserve Bank. After more than four years of a persistent "excessive" growth in *M3*, with a clear downward trend in inflation at the same time, the question has arisen whether the time has not come for South Africa to follow the example set by many other countries and to switch from a money supply anchor for monetary policy to a more direct targeting of the ultimate goal, that is inflation in its own right." (Stals 1999:2)

Under this system the Bank's primary instrument is its refinancing policy, i.e., Bank rate and changes thereof[28]. The Bank rate anchors short-term interest rates in the market. Indirectly, changes in the Bank rate filter through to other variables within the economy; hence the Bank's operational variable is the general level of short-term interest rates.

The term accommodation is used to refer to the Bank's refinancing operations, as for example, through the use of a discount window. Commercial banks approach the Reserve Bank for accommodation i.e., *"for cash balances on deposit with the Reserve Bank, rather than for money or credit in general"* (Meijer, 1987: 2). Of the banks' total cash reserves, a portion is held with the Reserve Bank as these banks' "cash balances". The total amount of refinancing, made by the Reserve Bank on a daily basis, is termed the money market shortage. The total money market shortage reflects market developments as well as calculated actions by the Reserve Bank.

Banks will require cash reserves, therefore creating a need for accommodation. When the Reserve Bank deliberately increases the amount of the shortage, this may be taken as a signal of a tightening of policy.

The money market shortage is managed by the Reserve Bank principally through five mechanisms. (Meijer: 1987):

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28 It is useful to distinguish between the Bank's "operational variable" – this being the general level of short-term interest rates – and the SARB's instrument for effecting changes in the operational variable (formerly changes in Bank rate; now induced permitted or delibirate changes in the repo tender rate).

- Open-market operations;

- Adjustments in the kinds of assets held by the Corporation of Public Deposits;

- Operation of tax and loan accounts;

- Currency swaps;

- The South African Reserve Bank's own bond issues (unless considered part of Open Market Operations).

⑤

The system changed on 8 March 1998[29]. Although the ultimate objective remained the same (monetary stability), other elements of the system underwent a change. The inflation rate was set to decrease by an unstipulated amount over time. Whereas, under the previous system, the instrument was the Reserve Bank's discount policy, under the new system the instrument consists of ways for affecting variations in the repurchase tender rate. Four new measures were introduced in 1998, namely[30]:

1. Measures (non-tender) to alter the amount of cash reserves in the banking system in order to influence the repurchase tender and the tender rate.

2. Changes in the manner in which the repo tender is conducted, in order to influence the result of the tender.

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29 The operational procedures of the Reserve Bank in South Africa were amended on 8 March 1998, in that the principal method of providing accommodation was changed to the repo tender system. Under the previous overnight lending system of accommodation money market interest rates were largely unresponsive to the money market shortage. Meijer (1998:2) notes problems with the previous system that led to the change-over to the new system:

- Banks' heavy reliance on the discount window for overnight borrowing was an "unhealthy" phenomenon.

- Changes in the money market shortage had little signalling significance for the market.

- The Bank had very few ways of signalling to the market.

- Changes in market interest rates essentially reflected only changes in expectations as to what the Reserve Bank was going to do.

- The absence of penalty rates in providing accommodation.

The new operational procedures aimed to address (Meijer; 1998: 4):

- Globalisation and internationalisation.

- Further steps towards market orientation.

- Improving the efficiency of monetary policy.

- Development of South African financial markets.

30 (Meijer: 1998)

3. The use of non-repo instruments.

4. Changes in the way in which the repo is conducted, in order to signal to the market on the stance of the Bank, and other Bank actions to influence the result of the tender.

6.4 MODELLING INFLATION IN SOUTH AFRICA

In a recent paper by Fedderke and Schaling (2000: 14) the Ghali model is applied to South Africa, using an expectations-augmented Phillips curve. The authors find "strong" evidence of output prices governing unit costs, which are driven by expectations. The model compares mark-up behaviour in South Africa with similar behaviour in the United States, and finds that South Africa has a mark-up of 30 percent, whereas in the United States the mark-up is only 10 percent. The paper finds *"robust" evidence for cost-push factors influencing the inflation process, in South Africa.*

Cost-push inflation[31] is attributed to one key factor, namely the relatively low degree of competition in labour and product markets. The implications of this for Inflation Targeting in South Africa are important and stress fundamentals, such as deregulation and the importance of increasing competition in order to create more comparable mark-ups. This is supported by evidence from the United States, where supply side developments have strongly contributed to the process of falling inflation. An additional area of importance noted by Schaling et al. (2000) is the role played by administrative prices (see below).

The recommendations in terms are Schaling's findings are in line with this paper, namely that monetary policy focusing only on demand side measures cannot but be comparatively ineffective in the presence of supply side inflation. The focus should, therefore, shift away from putting pressure on monetary policy and allow policy makers to *focus on the core structural elements of inflation in the economy.*

In terms of this paper, the issue is whether such policies are effectively being put in place. Relating too earlier arguments, if inflation in South Africa is mainly a structural one on the supply side, then is it within the control of the Bank? Two problems are raised in this regard, firstly, it may, in any case, already be mostly too late for demand side measures to neutralise the cost-push pressures with

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31 See also Nell (1999), Greyling (1995) and Krause (1999)

regard to 2002; secondly, structural changes to "correct" the inflation pressures from the supply side will take (much) more time than is available up to 2002.

6.5 DOES SOUTH AFRICA MEET THE REQUIREMENTS FOR INFLATION TARGETING?

6.5.1 INDEPENDENCE

In order for an Inflation Targeting framework to be successful, the Central Bank is required to operate with some minimum degree of independence. Masson et al. (1997) point out that only instrument independence is required. The independence of the South African Reserve Bank was enshrined in the South African Constitution of 1996 and amendments thereof. The Constitution states *"[the] Bank can perform its functions independently without fear, favour or prejudice; but there must be regular consultation between the Bank and the Cabinet member (Minister of Finance) responsible for national financial matters. "* (Casteleijn 1999: 25)

The independence of the Reserve Bank was originally established by, and is now supported by, the Reserve Bank Act (No 90 of 1989), in terms of which the Bank is provided with a large degree of independence. Section 35 empowers the Bank to make rules, *"for the good government of the Bank and the conduct of its business"*. Section 10 of the Act, subsection 10(2) in particular, empowers the Bank with regard to the rediscounting of bills, the conditions of which are both to be determined and announced by the Bank.

Section 4 of the Act, which regulates the appointment of Reserve Bank Governors and Deputies, lays down that *"no person actively involved in politics is authorised to be appointed on the board"*. Although seven of the Bank's directors, including the Governor and the three Deputy Governors, are appointed by the State President, after their appointment the Governors have the power to act independently.

Section 13(f) provides the Bank with instrument independence in that the Bank is precluded from making excessive direct purchases of Government Stock. Thus, *"the Bank may not hold in stocks of the Government of the Republic which have been acquired directly from the Treasury by subscription to new issues, the conversion of existing issues or otherwise, a sum exceeding its paid-*

up capital and reserve fund plus one-third of its liabilities to the public in the Republic" (Mboweni 2000d).

This section therefore provides for the non-financing of government deficits. There is, however, nothing in this provision as cited by Mboweni to prevent the Bank from buying up large amounts of Government paper in the securities markets.

Governor Mboweni has himself noted the importance of an independent Central Bank; *"The traditional argument in favour of a strong autonomous Central Bank is that the power to spend money should in some way be separated from the power to create money... Many governments have ... given way to the temptation to reduce interest rates ahead of elections. This may boost spending and employment in the short-term, but ultimately it normally also causes higher inflation over the long term unless the capacity of the economy can meet this higher level of demand. This higher inflation, however, only becomes apparent a couple of years later. An incumbent government concerned about its immediate popularity is likely to be tempted to go for the short-term gains from lower interest rates, even at the risk of promoting somewhat higher inflation further down the road because some other political party may then have to pick up the pieces"* (Mboweni: 2000d: 3).

Central Bank independence allows the Bank to take a longer-term approach, by not jeopardising long-term prospects for short-term gains. Autonomy in Central Banking requires credibility. Three conditions are required to determine whether the Bank will operate effectively within its independent status (Mboweni: 2000d):

1. The Central Bank's monetary policy needs to be clearly defined. The goals and manner in which they are to be achieved should be readily understandable.
2. All stakeholders should be aware of the Bank's monetary policy stance at any given point in time.
3. An institutional framework must exist whereby the Bank can operate without undue influence, by politicians in terms of ownership and management of the Bank.

Regarding the above points, firstly, the Bank does indicate the nature of the monetary framework and its operational procedures. Secondly, Mboweni (2000d) states that the Bank is both transparent (in that inflation targets are duly publicised) and accountable (in that if the targets are not met, a justification is required). This, to be sure, signifies no more than the very weakest form of accountability (see page 27 above). Finally, communication occurs on the monetary policy stance,

through the publication of monetary policy statements and the publication of the twice-yearly Monetary Policy Review.

Thus, on account of the above and of the Bank's having its own financial resources and budget, the Reserve Bank of South Africa can be said to be independent from the government. Mboweni (2000d) equates the instrument independence of the Bank to the operational procedures of monetary policy: as the repo rate is set by the Bank, the inflation target is set by Government, with the Reserve Bank being mandated to achieve the chosen objective.

Mboweni concludes *"It –the Bank – operates autonomously within a legal framework which affords it a substantial degree of independence, while remaining accountable to Parliament"* (Mboweni: 2000d).

6.5.2 A SOPHISTICATED MODEL FOR THE FORECASTING OF INFLATION

Jonsson (1999) and Masson et al. (1997) note the importance of an inflation-forecasting model. As Inflation Targeting is forward-looking and the projected inflation rate is important *inter alia* in the determination of the target range, it is critical that a forecasting model is available with the ability to accurately model an inflation target. In Jonsson (1999) it was felt that further refinement was required of the South African Reserve Bank's model before the move was made to Inflation Targeting.

Mboweni (2001e: 3): " *The Reserve Bank has embraced the system of a small core model supported by other models. It has moved away from the single large-scale macroeconomic model, in keeping with international developments. The aim is to keep the core model concise so as to focus on the key economic variables that influence inflation, as I have already mentioned. The core model incorporates some basic assumptions about the economy. It presupposes, among other things, that higher output cannot be achieved in the face of persistently higher inflation and that the level of prices in money terms and the rate of inflation in the longer term depend on monetary policy"*.

The Bank currently uses what Casteleijn[32] refers to as a "suite" of models, including Phillips-curve models, other small-scale macroeconomic models, vector autoregressive models and indicator models. Mboweni (2000c) states that these models, although important, will not provide the

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[32] Personal interview

ultimate answers, but are an important tool in predicting future inflation. The effectiveness of the model should be increased through Stellenbosch's Bureau for Economic Research, which surveys inflationary-expectations in South Africa.

Although the Bank's model for Inflation Targeting is new and relatively untested, the Bank has worked in close coordination with other Banks with more experience in implementing Inflation Targeting.

The Bank does not publish its forecasting model. According to senior Bank representatives, this is because of the early stage of development of the model and the potential loss of Reserve Bank credibility that could result from publication of the model at an immature stage. It is, however, at the very least conceivable that when markets are uncertain about Central Bank policy, it is even more important to make the model public. Another reason for not publishing the model, according to Casteleijn, is that publication would cause market participants to have a greater knowledge of prospective interest rate movements, which would affect private sector asset allocation.

The Bank has decided to publish probability distributions rather than single point estimates to prevent a loss of credibility (Mboweni: 1999) (see figure 5). The model is based on a set of likely assumptions regarding a number of factors, including expected oil, gold and other commodity price movements, and a certain repo rate. The centre of the band represents the most likely outcomes, moving to less likely situations further out. The total spread of the probability distribution covered by the fan at the outer limit of the forecast is quite large, with a total spread amounting to roughly six percentage points.

Given the above, what about the Bank's actual track record, i.e., when its (two years ahead) inflation forecasts are compared with the eventual actual inflation rates? The Bank stresses that the models are simply a point of departure for the forecast. In Monetary Policy Committee meetings, representatives use discussion and judgment in addition to the models to come to a view on the prospective inflation. When asked for results from a testing of the model against historical data, the Bank claims such results would indeed be relatively accurate. This, however, must as yet be considered less than convincing, given past inflation volatility, the evident unforeseeability of factors that have influenced inflation in recent years, and the Bank's own admission as to the model's immaturity.

Figure 5: Inflation forecast for South Africa
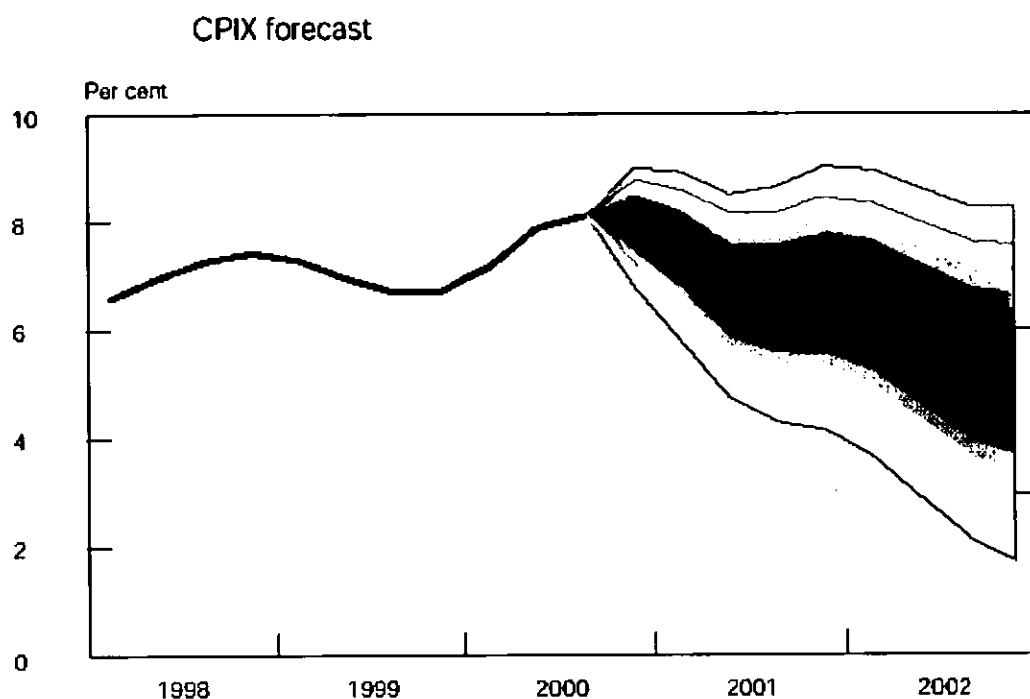
CPIX forecast

Source: SARB. Monetary Policy Review: March 2001

6.5.3 WELL-DEVELOPED MONEY AND CAPITAL MARKETS

While steps are continuously being taken to keep up the sophistication of South African financial markets[33], they are well developed, more so than in most other emerging markets (Casteleijn: 2000). Throughout 1996 and 1997 the markets, which are largely self-governed, underwent structural changes to ensure international competitiveness and adaptability to growing international capital flows.

Factors relating to the nature of South Africa's money and capital markets are as follows:

- The market is big enough to absorb such quantities of government securities as the government may have to sell (on a net basis) for financing its budgetary deficits. (The alternative – being forced financing by the banking system, or, eventually, by the South

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33 South Africa, through its modernisation of its financial markets and focusing on its risk reduction through improved clearing and settlement facilities, will bring the country in line with the G 30 recommendations for electronic settlement. Through the expansion of interest rate futures to include interest rate futures and options on futures for more government bonds, the variety of South African financial instruments has greatly expanded to become more in line with international financial trends.

African Reserve Bank – would be inflationary, create fears of inflation, and possibly, amount to "fiscal dominance");

- The market contains a sufficient number of "players" to ensure adequate competition and un-falsified price formation. Rates and yields must be sensitive without being subject to sudden and inordinately large movements. To summarise, the market must display "breadth, depth and resilience".

- The market allows the South African Reserve Bank to engage freely in open-market operations with a variety of counter-parties in a variety of instruments.

As the above factors are, indeed, met in South Africa, this prerequisite is largely satisfied.

6.5.4   FISCAL DOMINANCE

South Africa's relatively small and falling budgetary deficit and low levels of seigniorage revenue adequately point to an absence of fiscal dominance. Other authors concur and are of the opinion that South Africa readily meets this requirement (see Casteleijn, 1999; CREFSA, 1998; and Jonsson, 1999). What does not enter these analyses, however, is the manner in which South Africa's (admittedly low) fiscal deficit is arrived at. Budgetary deficits that are low in both absolute and relative terms still cannot, in themselves, be equated with sound budgetary, fiscal or public financial policies. A pleasingly low deficit can be the result of damagingly heavy taxation, on the one hand, and of quantitatively and qualitatively deficient government spending behaviour, on the other.

6.5.5   THE GOAL AND EFFECTIVENESS OF MONETARY POLICY

South African monetary policy is geared at price stability. *"The primary objective of monetary policy is to protect the value of the currency in order to obtain balanced and sustainable economic growth in the country. This objective is articulated in both the Constitution of the Republic of South Africa and in the South African Reserve Bank Act, No 90 of 1989. It requires the achievement of financial stability, i.e. price stability as well as stable conditions in the financial sector as a whole."* (Mboweni: 2000: 1)

In terms of the IMF framework for Inflation Targeting, the Central Bank must have long-term price stability as the key goal of monetary policy. The Reserve Bank Governor has stressed this objective on numerous occasions, *"The new inflation-targeting monetary policy framework is primarily concerned with one element of financial stability, i.e. price stability"* (Mboweni: 2000: 2).

Inflation Targeting requires both a model for the forecasting of inflation as well as a reasonable degree of predictability of the inflation outcomes. The relationship between the monetary policy instruments and inflation must be reasonably stable and predictable.

It must also be borne in mind that the Bank has had only *mild success* in its anti inflationary policy bringing inflation down to single digits over recent years. Moreover, South Africa's inflation rates are, however, still clearly too high by "developed economy" standards. Also, as compared with the United Kingdom and other countries, we have actually needed an inordinate amount of time for getting where we are now, from the inflation peaks of 1980 – 1981 – 1982 and 1985-96.

Nonetheless, in Johnson's view (1999: 15), " *South Africa has quite a sophisticated capital market and policy changes seem to influence money market rates in a transparent fashion.*" Jonsson (1999) adds that the repo system for overnight loans constitutes an appropriate framework for effective monetary policy operations, but that further experience is required with the tender system. After another two years, the requisite flexibility of the system could reasonably be expected to be available.

According to Casteleijn[34], econometric simulations leave no doubt about the effectiveness of the South African Reserve Bank's instruments/changes in the operational variable, in reducing inflation *under ceteris paribus assumptions*.

6.5.6   NO COMMITMENT TO ANY OTHER NOMINAL VARIABLE

Although the exchange rate will always be one of the variables to be closely monitored by the monetary authorities and (possibly) to be "considered" in monetary policy, it cannot, as stated repeatedly, serve as a nominal anchor under Inflation Targeting. *The important question is: whether actual exchange rate movements and considerations of desirable exchange rate behaviour have, in practice, been allowed to influence monetary policy decisions apart from the effects on the forecasted inflation rates. The exchange rate has been allowed to float, thus enabling the Reserve Bank, in principle, to fulfil this requirement as imposed by Inflation Targeting. Price stability commands the ultimate objective of monetary policy. However, there is a fine line between protecting the exchange rate on the basis of inflation two years ahead and protecting the exchange*

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[34] Personal interview.

rate per se. According to a spokesman for the Bank, stabilisation of the exchange rate has, in fact, been allowed to be practised for the "sole purpose" of managing the effects of exchange rate changes on future inflation.

6.5.7 INFLATION TARGETING SHOULD BE EMBRACED BY ALL

The decision to make the focus on inflation within an Inflation Targeting framework (with major emphasis) should be agreed to by all stakeholders. Stals (1996: 2): *"In South Africa, where many political, social and economic structural reforms are now in progress, it will not at this stage be easy to reach a degree of consensus that will make it possible to decide on a definition of acceptable price stability. The South African Reserve Bank is therefore pursuing its instruction from Parliament to protect the value of the rand to the best of its ability by setting annual guidelines for an acceptable rate of increase in the M3 money supply".* Since the introduction of Inflation Targeting there have been diverging views have been expressed on the degree of price stability that, for the near future, should be deemed optimal. Thus, the South African Chamber of Commerce has stated that it would have liked to have seen an inflation target of between six and nine percent. COSATU, for its part, has similarly stated itself to be opposed to "very low" inflation targets.

In the application of Inflation Targeting, it is important that there be a commitment by all official *and* private parties, enjoying some market power, to the objective of price stability (Mboweni: 1999). It is to be noted, however, that interest groups who declare themselves in favour of the laxer and less demanding price stability objectives, must be assumed to expect the concomitantly more relaxed monetary policies somehow to redound to their own benefit at least temporarily – through improved employment opportunities, a larger cut in a temporarily higher total real disposable income, or by some other means. Commitment by such parties to any given (but stricter) price stability objective will therefore presumably call for their being persuaded that that objective is in their own (longer-term) interest.

6.6 SPECIFICATION OF THE SOUTH AFRICAN INFLATION TARGET

Table 6 summarises the specification of the South African Inflation Target.

Table 6: Summary: The South African Inflation Target

INFLATION TARGET

Date adopted:	23 February 2000
Announced by:	Minister of Finance
Index:	CPIX
Target:	Range of 3 to 6 per cent
Target horizon:	2002 (average of between three and six percent for the period)
Targeted inflation concept:	Consumer price index, excluding mortgage interest cost
Caveats:	Allowance will be made for certain shocks, but to date they are unspecified

POLICY FRAMEWORK

Inflation projections:	Derived from core model, Phillips-curve models, other small-scale macroeconomic models, vector autoregressive models and indicator models. Projections are made to the first target date
Main indicators:	Unspecified. Attention will be paid to a suite of economic indicators
Operational target:	Monetary conditions indicator
Policy instrument:	Repurchase rate

COMMUNICATIONS

Policy statement/ Inflation report:	Twice a year a Monetary Policy Review
Press Release:	Monetary policy statement after the completion of every meeting of the Monetary Policy Committee
Other:	Monetary Policy Forum has also been established to open an avenue for on-going discussions on monetary policy

The Bank asserts that attention will be given to "an unspecified suite of economic indicators". The Monetary Conditions Indicator[35] is not used as a main tool or as the Bank's operational variable, but as an indicator. As long as there is a pronounced element of judgementalism, implying subjectivism, in the Bank's forecasts, its procedures evidently cannot be said to have become truly "transparent": there is no way in which outside observers can hope to replicate the exact state of mind of the Reserve Bank's decision makers, even if the full set of factual data utilised by the Bank were available to them.

6.7 AFTER A YEAR: AN EVALUATION

The first year of South Africa's Inflation Targeting effort has shown certain (small) successes and highlighted various problems and inadequacies. According to Van Den Heever[36], the Bank has had the following successes:

- Transparency has increased. When compared with the policy regimes of the past, the aims and goals of the Bank have become clearer. Previously, the weight attached to the exchange rate relative to the weight assigned to the desired inflation rate, was vague. Inflation Targeting has attached an unambiguous priority to inflation, thereby creating more certainty

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35 The MCI is calculated as:

$MCIt = (B1 * (SRIRt - SRIRt0) + B2 *[((REERt / REERt0) -1)*100])$

$/ (B1 + B2)$

where :

MCIt = Monetary Conditions Index at time t :

SRIRt = Short-term real interest rate, calculated as the three_month

bankers' acceptance rate less price expectations (moving average of the

inflation rate over three years) at time t, in percentage points ;

REERt = Real effective exchange rate of the rand at time t. The

index is expressed as foreign currency per unit of domestic currency.

An increase in this index means an appreciation of the rand;

B1, B2 = Weights assigned to the two financial variables,

where B1 is equal to 1 and B2 is equal to 1/3 respectively;

t, t0 = the current and base year respectively. The "base year" is

determined as the average of the variable over the estimation period

(1990 - present date) (MCI starts in 1990. It shows the trend or deviation in the

trend from the base period as reference.) Source: DeJager, S: electronic mail from the South African Reserve Bank,

shaun.de.jager@resbank.co.za on 07/05/2001

36 Personal interview: SARB, Pretoria, 30 April 2001

in the market. *It is noteworthy, however, that while transparency has increased in relation to the past, many unclear elements still exist, particularly regarding the exchange rate.*

- Increased accountability, as there is increased pressure on the Bank to decrease inflation and the extent of the Bank's *failure* (or success) will be readily quantifiable.

- According to the Bank, the lags in the effect of its policy measures have been accorded stronger recognition. *However, although this may be the case in theory, in practice the Bank seems to be showing little awareness of the fact that, with the closing-in of the target date, the foreseeable effect of its current policy actions must already be diminishing.*

- The Bank has incentives to act with the inflation target in mind, due to possible sanctions if it fails. *While the Governor and his senior staff will indeed face public dishonours or a loss of reputation if the target is not attained, no clear sanctions exist such as in New Zealand.*

- Communication with the public has increased.

- Government has been disciplined through its involvement in the target setting. This, however, is debatable, given that administered prices have been increased notably more than the annual rise in the CPIX (see below). According to the Bank, the large increase in administered prices was an adjustment of these prices to their correct current levels; they may, therefore, be expected to increase more in line with inflation over the next year.

6.8 A LABOUR UNION PERSPECTIVE

Commentators within the Inflation Targeting arena have stated that in order for Inflation Targeting to be effective, co-ordination between all stakeholders must be present. COSATU has long since been a powerful force in the South African economic environment. In a fairly recent press statement, the Union stated as its stance that *"COSATU is not opposed to the targeting of economic variables insofar as this promotes certainty and stability, at the same time as promoting economic development."* (COSATU: 2000c)

Concerns coming from COSATU relate to Inflation Targeting on a more operational level. Towards the end of the last century, the economic climate in South Africa was characterised by high interest rates and a strong anti-inflationary policy stance. COSATU points to a broader approach, incorporating factors such as GDP, GDFI and employment.

According to COSATU, the real causes of inflation should be attacked, as opposed to *"a narrowly driven wage restraint model."* This is a controversial area. Firstly, COSATU needs to identify their "true" causes of inflation. Secondly, the phenomenon of wage-price spirals is based on inflationary

expectations; inflation expectations, however, need to be validated, or to be justified by constantly renewable "potentially inflation-generating" developments, if they are to persist. In principle, a sufficiently restrictive current and prospective monetary environment must eventually cause any inflationary wage-price spiral to run out of steam (also causing inflation expectations to subside). To the extent that growing unemployment is a necessary element in this "strangling" process, however, this may not happen "in time" – i.e., at still acceptable real income levels – if organised labour is highly insensitive to high and rising levels of unemployment.

Stakeholders need to redefine their mindset regarding inflationary expectations, but will not do so in an otherwise unchanged environment. According to COSATU, within the context of a 3 percent growth rate a target of 6 to 8 percent inflation is reasonable. This is a meaningless point of view if real growth at three percent or better is just as well, or actually more easily, attainable at inflation rates of _less_ than six to eight percent. More reasonably, COSATU would wish to see targets for employment creation, poverty alleviation and rural development to be allowed for, alongside of any aspirations in the direction of price stability. Obviously, however, at any point in time there are limits to the combinations of real growth, employment creation and price stability that are in the realm of the possible.

6.9 THE EVOLUTION OF INFLATION EXPECTATIONS IN SOUTH AFRICA

Inflation Targeting provides a nominal anchor for inflationary expectations. This is a key reason for the adoption of Inflation Targeting in South Africa and other countries alike. The data presented by the Bureau for Economic Research (see appendix one) holds important implications for monetary policy. An important effect and advantage of Inflation Targeting is to affect the price and wage setting behaviour of labour and business. In order for this to occur, stakeholders must believe that the targets are credible and will be hit. The evidence presented in Appendix one shows that this has not yet been the case to the required extent. This presents a serious problem to Reserve Bank policy in that the public may perceive the target as being unattainable and thus does not have sufficient faith in the monetary authorities.

6.10   POSSIBLE UNCERTAINTIES AND DOUBTS ON INFLATION TARGETING IN SOUTH AFRICA

According to the analysis above, South Africa seems *de facto* to fit the requirements of an Inflation-Targeting framework. The key requirements – namely, a clear-cut, one-dimensional price stability goal of monetary policy, the absence of any other nominal anchor, and the absence of fiscal dominance, are all met in South Africa.   Indeed, CREFSA (1998), Jonsson (1999) and Casteleijn (1999) use this as their justification for suggesting that South Africa is suitable to this policy regime. The present section analyses possible doubts about the Inflation Targeting framework, over and above the aforesaid generic requirements. South Africa has both unique circumstances and problems that have not been given sufficient attention by other authors. These factors impinge on the viability of Inflation Targeting in South Africa.

Problems with Inflation Targeting in South Africa relate to the fact that the target set in South Africa at three to six percent for the CPIX is higher than in most other countries where Inflation Targeting has been implemented, such as: Australia (two to three percent) Canada (one to three percent), New Zealand (zero to three percent), Spain (two percent), Sweden (one to three percentage points), and the UK (two and a half percent). As the South African target has been set higher than many of the targets in many other countries, the value of the objective is limited and impacts on credibility. When the inflation target is set at too high a level, it runs the possibility of not being taken seriously by stakeholders. Added to this is the fact that the higher the level of inflation, the higher tends to be the level of its volatility – resulting in difficulty in forecasting inflation. In the case of South Africa, it is quite likely that the inflation target lacks credibility, given that overall expectations, as held by the public, business and the finance sector, seem to be sceptical of the target going to be attained.

Monetary stability, which encompasses price stability, has been the sole objective of monetary policy for the past twelve years. Internationally, price stability is generally taken to mean between zero and two percent inflation. Given that the South African inflation rate has not yet reached or even come close to these levels over the 12-year period, the Reserve Bank's credentials as an inflation fighter are not yet well established. Not only is there a limited value in the current objective (since six percent inflation is not an ambitious target), but also the target is notably higher than that of other countries.

This is not to say that a lower target should have been set. A low target has problems of its own in that it may also lack credibility, as the public may be even more sceptical about its attainability and therefore will tend to take it (even) less seriously. The South African factual experience to date *may*, however, be taken to support the view that Inflation Targeting in the manner that it has been adopted in this country represents too formal, too rigid, too demanding, too exclusive or (especially) too "blinkered" and one-sided an approach of addressing the nation's inflation problems. This is perhaps corroborated by the fact that (embarrassingly if excusably) inflation in terms of the CPIX has actually accelerated over the period that inflation has been targeted. This is not ideal for a Bank aiming to establish credibility in its first year of targeting. Eventually, policy-makers will face the question: What should South Africa go for (or should have gone for) if the three to six percent target is not liked? *The hope to be expressed in this paper is that a revamped, somewhat more binding and realistic, GEAR-type programme, capable of securing preference over alternatives from (all) major groups of interested parties, may yet show firmed-up real growth and declining unemployment to be compatible with an acceptably rapid downward drift of inflation.*

6.10.1 STRUCTURAL CHANGES WITHIN SOUTH AFRICA

South Africa is, and has been for the past decade, undergoing massive structural changes of a social, economic and political nature[37]. The question of whether a country is suitable for Inflation Targeting cannot be analysed using frameworks and mathematical models alone – although, in terms of the "IMF, Masson and others "Inflation Targeting tool kit", South Africa does meet the requirements for adoption. Indeed, Jonsson (1999), Casteleijn (1999), CREFSA (1998) and our own Reserve Bank have applied the framework to South Africa and found that the general requirements are met.

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While other studies have largely ignored the impact of structural changes, they are of vital importance, in that:

1. Econometric models that are based on past observed behaviour of decision-making and past technical relationships may have lost validity to a greater or lesser degree;

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37 Examples of structural changes in the economy include: jobless economic growth and higher levels of unemployment; a sustained substitution of capital for labour; reduced propensity to save; structurally high interest rates; increased income inequality; a decline in the quality of important parts of the national infrastructure; a structurally weak exchange rate; a policy of reducing tariff structures; and HIV/Aids.

2. Structural changes may have reduced the sensitivity of the economy to monetary policy actions;

3. The economy may have become inherently more inflationary, while the predictability of inflation may be less than it used to be.

6.10.1.1 THE IMPACT OF STRUCTURAL CHANGES

Unemployment in South Africa has increased continually on a year-to-year basis since 1990[38]. Rigidities in the South African labour market have contributed to a shift towards capital intensity[39]. Comparatively high real wages per unit of physical output restrict the demand for labour. This may be compounded by various negative elements in the employment situation, meaning that _comprehensive effective costs of offering employment_ (incorporating the so called "hassle factors", such as a lack of freedom to hire and fire workers, difficulties in using part-time workers, to use workers in various job positions or to make use of overtime, exposure to frequent union interference and demands on management, and frequent strikes), may well exceed the direct money costs of labour substantially. Real wages in South Africa have shown a remarkable insensitivity to labour market conditions, as a result of which adjustments seem to have been made on the employment side[40]. Firms are reluctant to employ unskilled workers at real wages higher than demand and supply conditions would dictate. The result of these various rigidities is a persistently high unemployment rate. From this angle as well, therefore, _economic policy needs to address multiple objectives within a more all-encompassing policy framework_. Additionally, considerable care will have to be taken within such a framework to ensure that mutually antagonistic or counter-productive elements of policy are avoided[41].

South Africa's _low savings and investment ratio_, relative to other countries, has resulted in a slowing of economic growth, which may have an inflationary impact on the economy as frustrated

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38 See appendix 3, figure A3.1

39 According to the SARB, "[employers] ... _prefer to employ capital rather than labour contributing to a situation where one in every four members of the economically active population fails to become gainfully employed_" (SARB Annual Economic Report PG: 25-26).

40 IMF: 2000.

41 The skills development levy, for example, may be counter-productive in that it adds a further element to labour costs. A more positive approach would be for the government to reward/subsidise such in-house training as firms themselves see reason to undertake.

aspirations lead claimants to more aggressive demands. This would not, however, automatically render the inflation rate either less predictable or (technically) less controllable[42].

Structurally high real interest rates as well as high interest rate instability and divergences in interest rates constitute a risk factor to businesses – calling for a higher expected average rate of return on investment.

A major structural feature of the South African economy is the degree of _income inequality_[43]. Between the 1994 elections and 1996 income inequality within racial groups actually seems to have worsened[44]. Pronounced differences in income and wealth positions across racial groups readily and understandably result in diverging opinions on the legitimacy of policy goals. Widespread poverty makes it unlikely that a vast segment of the population will view price stability as their preferred number one objective of economic policy, particularly if this is seen as being at the expense of other objectives.

Inequality sustains bitterness; growing inequality, notably now within previously disadvantaged communities, increases such bitterness. Deepening resentment may be seen as eventually leading to prospects of unruly mass behaviour; alternatively, as raising prospects of eventual radical and populist government economic policies. Both of these developments could come to feed inflation and make economic developments increasingly less predictable, as they have elsewhere on the African continent.

Factors such as the decreasing quality of parts of the infrastructure somewhat act as additional cost-push factors to business enterprises, who may be required to provide their own service facilities, have to allow for more repairs and replacements, are subject to unforeseeable interruptions in service, or suffer from administrative hold-ups and delays.

The above observations may be generalised as illustrative of the vagaries of transition that may be experienced in the so-called transitional economies. The transitions may change key characteristics of these economies, including their inherent inflationariness and the predictability of inflation, in

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42 Non-technically, the South African economy may have landed in the vicious circularity of weakening foreign confidence and a progressive weakening of the exchange rate.

43 The Gini coefficient in South Africa is estimated at 0.58. This is one of the highest values of this coefficient in the world. (May, J: 1998).

44 Department of Finance, National Budget 2000.

ways that may not be readily identifiable from their statistics or capable of instant incorporation in econometric models. This increases the judgemental burden on the experts who are tasked with forecasting inflation rates over periods of up to two years ahead.

6.10.2 VOLATILE INFLATION RATES

Figure 6 shows South African core and headline inflation rates from 1994. Both headline and core inflation rates (at annualised rates) have been highly volatile, with quarter-to-quarter headline inflation exhibiting movements from no less than *18 to as little as 3 percent between 1998 and 1999*. The effect of this volatility impinges on the way in which the target is phrased. The fact that an average inflation rate for the full year of 2002 is targeted makes it more difficult to attain, in that the Bank cannot hope for an eleventh-hour drop in the inflation rate at the end of the year. The effect of these volatile inflation rates poses significant problems for the Inflation Targeting effort (See appendix 2).

Figure 6: Overall and core inflation in South Africa

Quarter to quarter, seasonally adjusted annual rates

Overall CPI   ▢

Core inflation   ▮
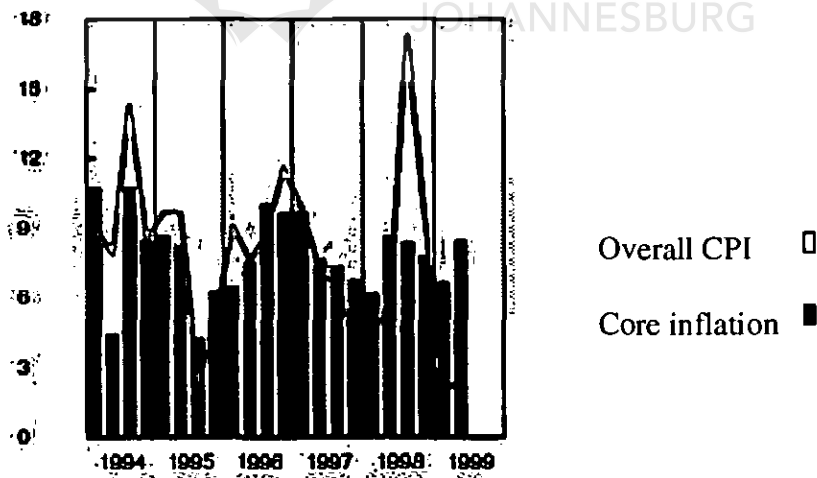
Source: SARB annual Economic Report 2000

In circumstances of such severe volatility, which partly reflects the shock effects of largely unforeseeable external developments, hitting or missing the target to all appearances mostly becomes a matter of good or bad luck. At the same time the inflation volatility itself suggests that the authorities are not really in control of inflation and that the entire inflation Targeting effort must accordingly be based on faith.

As stated earlier, one of the requirements of Inflation Targeting is an effective forecasting model of the Central Bank. The important question is whether the SARB could have forecasted, or otherwise have foreseen in any way, at least the more significant of these movements in the rates with any degree of accuracy. In the absence of such a modicum of powers of prognostication, the Inflation Targeting exercise, in the eyes of the public at least, would remain too much of a "shooting exercise in the dark", whose "luck" will eventually have to run out on some future occasion. The drop in credibility that would inevitably accompany such an event might well reduce the stature of the Inflation Targeting exercise in the public's opinion to little more than that of the Reserve Bank's money supply targets in the more advanced stages of their use.

An additional problem that newly impacts on Inflation Targeting is the recent apparent breakdown in the relationship between consumer and producer price inflation. While the Producer Price Index (PPI) has always provided insights into the future movements of the CPI, the relationship over the past year (2000) has not been in accordance with this. After CPI inflation decreased after August 2000, the PPI continued to rise to 9.2 percent in December. This "failure" of the relationship seems largely to have been due to the structural changes, noted above. These, including the impact of financial globalisation, have partly, via the current breakdown referred to, probably led to further unpredictability in inflation in South Africa. The Reserve Bank explains the reason for the breakdown as being attributable to technical factors that relate to the composition of the indices and to "external" factors impinging on inflation in South Africa, such as increased food prices and the recent surge in the international price of oil. The Reserve Bank thus effectively confirms the problem of inflation controllability.

Volatility in the face of the Reserve Bank's efforts to stabilise inflation suggests that factors beyond the control of the authorities are of great importance. These factors, as discussed below, are of a structural nature that cannot be ameliorated through a change in the Reserve Bank's operational variable or operational procedures. Inflation instability and its causes are an important argument in considering South Africa's suitability for any strict form of Inflation Targeting.

It has been noted earlier (page 77) that the Reserve Bank has reserved the right to specify "exemptions" that should be taken into account in determining whether an Inflation Targeting exercise should be deemed to have been successful or not; the Bank, however has not done so to date. At best such exemptions are a double-edged sword, in that enhanced public faith in the Central Bank's ability to hit the (adjusted) inflation target may struggle for supremacy in the public's mind with increased scepticism about the relevance and value of the adjusted target itself.

6.10.3 HIGH INFLATION RATES RELATIVE TO OTHER COUNTRIES

Table 7 below shows comparisons of inflation rates in various developed and transitional economies. The purpose of this section is to analyse South African inflation rates in terms of inflation rates in other countries.

Table 7: CPI inflation in selected countries

	CPI Inflation		
	1980-91	1992-95	1980-95
Advanced Economies (21) 4/	7.2	3.3	6.2
United States	5.4	2.8	4.4
Germany	2.9	3.5	3.1
Japan	2.6	0.9	2.2
Inflation Targeting countries (7)	8.0	2.7	6.7
Developing and Transition Economics, by Region 4/			
Africa (19)	19.6	22.2	20.2
South Africa	14.7	10.3	13.6
Asia (13)	7.6	7.1	7.5
China	6.5	16.1	8.9
Asia excluding China (12)	7.8	6.5	7.5
India	9.5	9.6	9.5
Indonesia	9.5	8.8	9.3
Korea	8.5	5.4	7.7
Malaysia	3.5	3.9	3.6
Philippines	15.0	8.4	13.3
Singapore	2.9	2.3	2.8
Taiwan Prov of China	4.5	3.8	4.3
Thailand	5.8	4.6	5.5
Eastern Europe			
Hungary	12.7	23.1	15.3
Poland	99.5	34.6	83.3
Latin America & Caribbean (15)	251.4	110.1	216.1
Argentina 5/	678.5	10.8	511.6
Brazil	535.9	1319.6	731.8
Chile 5/	21.8	11.9	19.3
Colombia	24.5	23.3	24.2
Mexico	61.7	16.8	50.5
Middle East & Europe (9)	22.9	13.8	20.6
Egypt	17.9	12.7	16.6
Israel 5/	111.1	11.3	86.1
Turkey	53.3	84.0	60.9

Source: Masson et al 1997

The analysis is split into three time periods, namely: 1980 to 1991, 1992 to 1995 and 1995 to 2000.

1980 to 1991

Between the years from 1980 to 1991 South African inflation was relatively high, at an average level of CPI inflation of 14.7 percent. Although this rate, compared with the rest of Africa in general at 19.6 percent, seems comfortingly low, an analysis of other countries in this sample paints a different picture.

The South African rate is higher than those of all Asian countries, including China, with the exception of the Philippines, at its rate of roughly 15 percent. The _average_ inflation rate for the Asian countries comes to 7.37 percent; it is, therefore, significantly lower than that of South Africa.

The average inflation rate in the United States for the period is 5.4 percent; Japan's, 2.9 percent; and Germany's, 2.6 percent. All these rates are significantly lower than the South African rate for the period.

In comparison, the only countries that make South Africa look like performing well are the Middle Eastern, Latin American and Eastern European ones. Latin American and Caribbean countries experienced hyperinflation during this period, due to country-specific issues, that make it difficult to draw a fair comparison between them.

1992 to 1995

During the period of 1992 to 1995, the picture looks similar to that of the previous period. Overall, inflation in Asia decreased to 6.95 percent, down from 7.37 percent. Inflation fell in both the Eastern European economies as well as in Latin America, with the exception of Brazil whose inflation leapt to hyperinflation levels. In Middle Eastern countries inflation on a whole decreased. Inflation in the advanced economies decreased significantly, with the exception of Germany, which experienced a moderate increase in inflation.

The above seems to be in line with the overall trend of falling world inflation in the 1990s. It is important to note that at this stage the South African inflation was still significantly higher than the average inflation rate in the Asian economies as well as in the developed economies, namely Japan, Germany and the United States.

<u>1996 onwards</u>

In 1996 Chile's inflation was slightly more then 6 percent. Inflation has followed a downward trend since then and is currently at just over 3 percent. Australia's inflation peaked at 3.3 percent in 1996; its current inflation rate is just over 2 percent. Canadian inflation has fluctuated at between 1 and 3 percent for 1996-2001 and is currently at 2 percent. Sweden's inflation since 1996 has moved between −1 and 2 percent; it is currently at 1.5 percent. Inflation in New Zealand has moved between 1 and 5 percent, and now stands at 4 percent. Inflation in the UK has moved between 3.5 and 2 percent since 1996 and is now at 2 percent. Israel has experienced rapid disinflation; its current inflation rate is at 2 percent[45].

It has been noted earlier that South Africa's problem with comparatively high inflation rates is exacerbated by its difficulties in forecasting inflation. Higher inflation rates normally also mean higher absolute variations. The record of recent fluctuations in the South African inflation rates makes acute the question whether, for example, the Reserve Bank forecasting model could have accurately predicted the exchange rate collapses of 1996, 1998 and 2000-2001 and their pass-through effects into the various price indices. To the extent that the Reserve Bank assumes exchange rate movements, its forecasts are no better than its assumptions, which cannot but have been proven poor on the occasions of the truly unexpected international exchange rate developments.

6.10.4 DIVERGING INFLATION RATES.

Figure 7 shows the relationship between the Consumer Price Inflation, as measured by the CPI, and the Reserve Bank's index for Inflation Targeting purposes, namely the CPIX, while figure 8 shows various measures of inflation in South Africa. An analysis of figure 7 shows CPI inflation to have accelerated markedly from the middle to the end of 1998, while CPIX inflation remained stable. Following this trend, CPI inflation sharply reversed itself from early 1999, with a massive drop in the CPI inflation rate from over 8 percent to 2 percent in the third quarter of the year. During the same period CPIX inflation remained broadly stable in the 6-8 percent range. From 2000, the CPI rise began to accelerate again from 2 percent to just over 6 percent in early 2001, while CPIX inflation remained between its earlier limits of 6 to 8 percent.

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[45] Source: SARB Monetary Policy Review 1999

Figure 7: Diverging inflation rates in South Africa

Percentage change over twelve months

CPIX
CPI

Source: Statistics South Africa
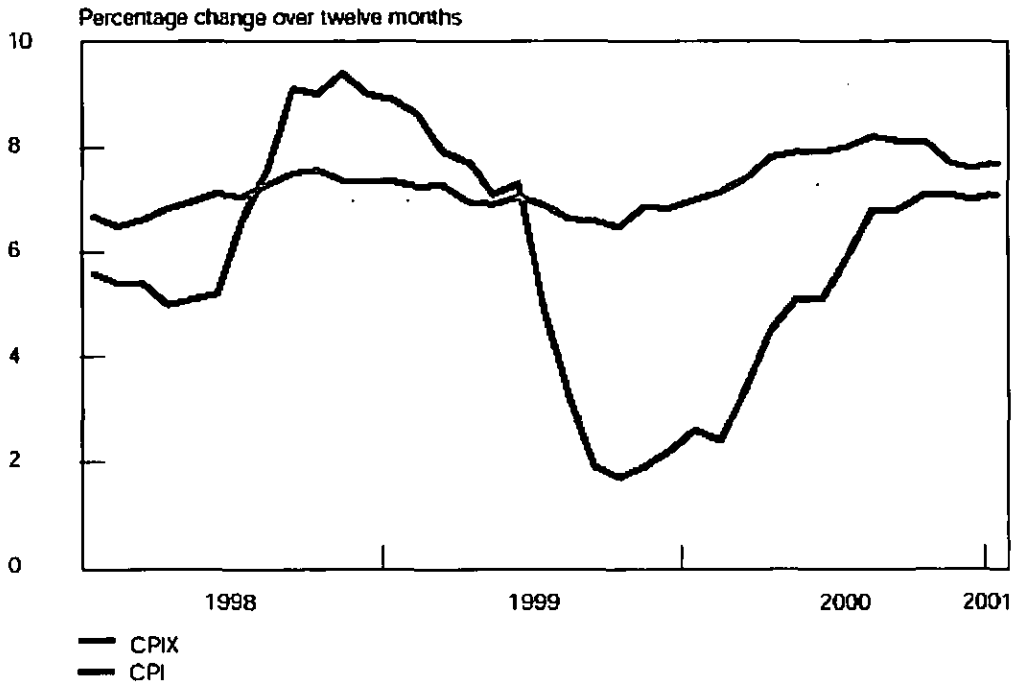
*Source: SARB: Monetary Policy Review 2001*

The reason cited by the Reserve Bank for the increase in the CPI until it began to plateau in August 2000 is higher transport costs that were related to the higher international and domestic prices of liquid fuels.

Figure 7 shows accordingly another problem with the Inflation Targeting exercise in South Africa. The divergences between the CPI and CPIX inflation indicators are large (as with all the indices – see earlier), with CPI inflation exhibiting significantly greater volatility. At times the divergence between the indexes has amounted to six percentage points, which, given the range of inflation in South Africa, is extremely and discomfortingly high. The Reserve Bank has noted that this is a, or *the*, problem with using this inflation index for targeting purposes. At the same time the index may appear to be arbitrarily chosen and self-serving in that, firstly, it is a "doctored" version of the CPI, and secondly, if, at any given point in time, CPIX inflation is within the target range but the CPI inflation is considerably higher, the answer to the question whether price stability has satisfactorily been obtained or not would be a matter of taste or special interest, rather than of the simple facts of an unambiguous target.

CPIX inflation, contrasted with CPI inflation, manifestly owes its high recent stability to the exclusion of the effect of interest rate changes. It may reasonably be pointed out, however, that relative stability of the price level, or of inflation, can hardly be said to have been attained *at a more fundamental level* as long as this stability (as measured by a supposedly "representative" price index) is deemed to require as hyperactive a use of the interest rate policy instrument as was made of this instrument in 1998 and 1999.

The resultant interest rate uncertainty can lead to scepticism, which discourages investment. If this is the case, which it may well be in South Africa, it is conceivable that South Africa's dramatic interest rate changes are, in fact, directly related to slack investment by private enterprise.

Figure 8: South African inflation measures
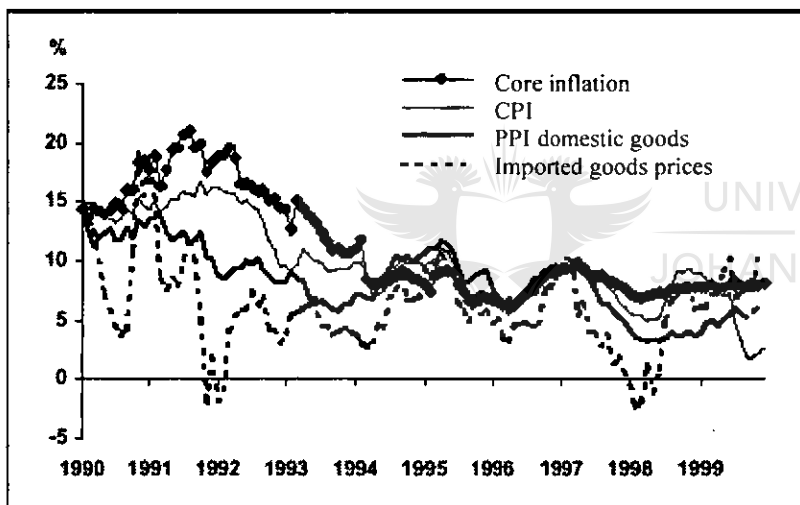
Source: 2000 Budget

Additionally, the public may well be battling to come to terms with the CPIX or "invented" definition of inflation. Increases in the Reserve Bank's own repo rate quasi-automatically cause an increase in the mortgage rate, which causes an upsurge in CPI (but not, as such, in CPIX) inflation. The exclusion of mortgage interest from the CPIX is thus understandable from an inflation controllability point of view. The same cannot be said for the man in the street that has to make payments based on the mortgage rate. For this man, the level of CPIX inflation is irrelevant and its sophisticated stability not necessarily a source of joy; the proportion of his mortgage payments in his family budget, on the other hand, may well be of crucial importance to him.

This example leads to another uncertainty: statistical measurements of inflation may well get out of touch with the man in the street's _view_ of the level of inflation, and may do so not only because of the effect of mortgage payments but also because of the nature of the composition of the CPI. For the family with 1.87 children, a tortoise, three mice and a monkey, inflation may well be measured poorly in terms of changes in the CPI. As the general public stands to lose faith in the way inflation is measured, their belief in the Reserve Bank's data need not be suspended: their day-to-day experiences, however, may well fail to confirm an official announced lowering of inflation. This could possibly be a result of the public's misunderstanding of inflation, what it is and how it is measured, but if this is the case, it is a further argument against South Africa's official Inflation Targeting, which requires an economically sophisticated audience for its implementation. This point has macro importance to the extent that subjectively divergent impressions of inflation, of the inflationariness of the economy, and of the relevance of the official statistics, may find expression in people's claims for divergent remuneration adjustments and in their wage and price-setting behaviour.

A brief recapitulation of the troublesome features:

- Increased mortgage rates are definitely experienced by households as a rise in the cost of living.
- Higher interest costs, like higher taxes, may drive demands for higher wages.
- Exclusion of mortgage interest _only_ seems arbitrary (i.e. what about interest on other forms of household debt?)
- The explanation of divergences between CPI and CPIX inflation – i.e., large swings in interest rates – is itself worrisome: firstly, for the fact that such swings are (deemed to be) needed; secondly, because they have occurred in circumstances of high exchange rate instability and possibly in defence of the exchange rate, rather than for steering CPIX inflation rate (in two years' time!) towards the target. They thereby raise doubts about price stability in terms of the target _truly_ being the authorities' one and only overriding policy objective.

6.10.5 INFLATION RATES TOO LITTLE RESPONSIVE TO POLICY CHANGES

This is an empirical matter, as is the sacrifice ratio. Prima facie it is at least arguable, however, that South Africa's inflation is significantly labour-cost driven (labour costs in their most comprehensive sense), and, more generally, can be attributed, to a significant extent, to policies of redistribution and transformation. These are only partly a matter of trade union behaviour; even the unions, however, would seem to be remarkably insensitive in their wage demands to the prevailing levels of (formal-sector) unemployment. It is suggested that the slow rise in unit labour costs – because of seemingly strong and strongly rising labour productivity – is misleading in this context, reflecting the adoption of labour-saving techniques. If cost-push pressures can survive virtually any level of unemployment, NAIRU becomes indeterminate. The situation may also lead to chronically high real interest rates (and a vicious circle of labour unrest, lack of foreign confidence, and weakening of the exchange rate).

6.10.6 LOWERING INFLATION IS EASIER FROM HIGH TO MODERATE LEVELS, THAN FROM MODERATE TO LOW LEVELS.

The Reserve Bank's efforts to bring down inflation over the past several years have shown positive results. The Bank may, however, find it increasingly difficult to decrease inflation from the current moderate to low levels. Since at least a portion of inflation is structurally ordained, it is conceivable that the Bank has done all that it could to decrease such parts of the inflation as are in its control. This is supported by the fact that over the past twelve months, since Inflation Targeting was enacted, the relevant index has not come down; on the contrary, it has increased. The Bank will, in their own defence, argue that inflation in 2000 was not affected by monetary policy measures in 2000, but by those of 1998/1999 (i.e. the effects of lags).

6.10.7 BATTLE AGAINST INFLATION TO THE EXCLUSION OF EVERYTHING ELSE

Inflation-fighting, by means of Inflation Targeting or otherwise, as the sole objective of monetary policy (or coordinated monetary and fiscal policy) can hardly be expected to have the wholehearted support of organised labour (COSATU and SACP) in conditions of continuous worker lay-offs, growing unemployment, indifferent economic growth rates, stagnant per capita real incomes and deteriorating social services. The solution, as suggested earlier (page 87), should be *the setting of an inflation target rate as derived from, or within, a GEAR-type programme for growth and*

employment which itself may have been presented as one of several GEAR-type options and, as such, has been able to muster support from a broad spectrum of "stakeholders" or interested parties. It is, in fact, an oddity of our situation that the inflation target seems to have been set without any need having been felt to recognise, acknowledge, or defer to GEAR – even though the 1996 GEAR projections had clearly long since been overtaken by events.

6.10.8 EMERGING MARKET BRANDING

South Africa may have escaped a full-fledged financial crisis as experienced by Mexico, South East Asian countries, Brazil and Russia, but it is clearly by no means immune to bouts of foreign investor doubts about the solidity of its currency (and is, perhaps, increasingly seen as another Africa-type economy). Furthermore, South Africa is at the receiving end of floods and droughts, primary product price collapses, sudden price rises on the international liquid-fuel markets, and political disasters elsewhere in Africa, on top of potential political instability within our own borders.

6.10.9 GOOD LUCK VERSUS DEFT CONTROL

If the 3 to 6 percent target is, in fact hit, it may appear as a matter of good luck, rather than deft steersmanship (given that inflation currently is significantly above the target and that, given lags, any interest rate changes made now will not affect the economy before late 2002). Given lags, that is, the monetary authority to a very major extent is already at the mercy of price-moving forces which, inalterably, are already part of the system, and of forces and events that, similarly beyond its control, will have more instantaneous effects on the price level between now and the end of 2002.

6.10.10 LACK OF TRANSPARENCY

It is questionable whether the authorities really respond to exchange rate weakenings *solely* on the basis of their projected effect on the 2002 inflation rate.

6.10.11 SUSCEPTIBILITY TO EXTERNAL SHOCKS SUCH AS THE CHANGING OIL PRICE

The international price of crude oil has fluctuated heavily over the past five years. The important factor to consider is the effect of these oil price shocks on South African inflation. South Africa is, indeed, susceptible to large movements in oil prices and their associated effects on domestic inflation. Jitters in oil prices, as felt recently, limit the Reserve Bank's power to control inflation (and therefore to attain targets set for inflation).

6.10.12 THE EFFECT OF GOVERNMENT-ADMINISTERED PRICES

Recent articles in the press have criticised the Inflation Targeting framework for not having a stronger commitment from government on the issue of administrative prices.[46] In the Monetary Policy Review the index used to determine the effect of administered prices is the Administered Price Index (API), defined as, *"a subset of components of the CPI and CPIX baskets whose prices are directly determined by Government Departments or other public sector agencies. The API excludes the prices of commodities previously determined by bodies that have been deregulated and goods which have only their final market prices influenced by indirect prices"*[47].

Administered prices account for 21.64 percent weight in the CPI and 23.9 percent of the CPIX. Due to the magnitude of administered prices within the CPI and the CPIX in particular, their effects cannot be ignored.

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46 See: ‹‹Inflation targets and other administrative stories›› By Mike Schussler, published on www.wozanomics.co.za.

47 Monetary Policy Review 2001

Table 8: Changes in administered prices in 2000

Component of consumer price index	
Administered prices	11,1
Public transport	4,0
Petrol and diesel	28,4
Communication services	6,2
Electricity	6,0
Paraffin	40,3
Licences	8,3
Water	9,1
Education	14,8
Medical services	7,2
Medical care goods	9,1
Administered prices excluding petrol and diesel	8,0
Overall consumer prices	7,0
Overall consumer prices excluding administered prices	5,4

Source: Monetary Policy Review

Table 8 illustrates the marked increases in administered prices, particularly in petrol, diesel and paraffin prices and the costs of education.

(An anomaly exists here in that, if the CPI only differs from the CPIX by the exclusion of mortgage interest rates, why aren't the CPI weights consistently higher than the CPIX weights by a constant factor[48]?)

According to the Bank, the principal reason for the large increase in these prices was the higher oil price, which manifestly falls outside the control of the Bank. Even if this is the case, the administered price index *excluding* the price of petrol and diesel still rose by eight percentage points, a full percentage above the increase in the CPI. Schussler asserts that tackling inflation through the use of interest rates is difficult, as administered prices are largely insensitive or unresponsive to interest rate changes.

One way of making the target "look" better is simply to exclude the effect of administered prices, as is done in the Czech Republic (for a moment ignoring the credibility loss).

An analysis of administered prices over the term of the inflation target shows a significant negative effect and increases the complexity of the framework. Combined measures of both interest rate policy and supply side measures are required to ensure the efficacy of the inflation target.

6.11 THE SOURCES OF INFLATION

The sources of inflation and the appropriateness of inflation fighting techniques and instruments play a vital role in the analyses of the South African Inflation Targeting effort. Anti-inflationary monetary policy loses much of its effectiveness over a wide range of employment and output outcomes when (a) *inflation is essentially a cost-push phenomenon* and (b) *the normal restraints on trade union aggressiveness and the resultant wage push do not apply*. The increase in "labour-friendly" legislation may not only affect the price level, but also inflation.

Greyling (1996) and Nell (2000) have studied the nature of inflation in South Africa. [49] Nell uses a price equation in distributed lag form to analyse inflation in South Africa during the period 1984-1998. Their paper analyses the inflationary impact of the exchange rate depreciations in this period and discusses the import pass-through rate, i.e. the rate at which exchange rate depreciation filters through to price changes. Nell's empirical findings are in line with the views expressed earlier in the present paper regarding the controllability of inflation through demand side measures. Specifically. these findings are that; "*The nature of inflation has changed from being demand pull for the period 1973 to 1983, to cost push for the period 1987 to 1998. The main causes of the shift in the nature of inflation over the period are import prices and wage rate changes*"(Nell, 2000:19). These conclusions are supported by Krause (1999), who similarly asserts that inflation in South Africa now presents itself as a result of high real wages.

Exchange rate movements have been responsible for the rise in import prices, while an extremely rigid labour market and strong trade unions have been responsible for wage increases. South African monetary policy has been restrictive during the period after the 1994 election, resulting in lower inflation rates, while unemployment has reached "frightening" levels. Nell (2000: 20) concludes that " *restrictive demand management policies may not necessarily promote high and sustainable economic growth, even though the monetary authorities managed to bring down the inflation rate to single digit rates. The underlying cause of inflation is not demand-pull, but cost-push. As long as the present structural features of the South African economy remain the same there will always be a bias towards inflation.* " It is thus debatable whether the costs of higher inflation outweigh the benefits reaped from lower unemployment. Indeed, Nell (1999)[50] suggests – as does this study – that South African inflation is of a cost-push and structural nature.

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49 Imported Inflation in South Africa: An empirical study (2000).

50 The relation between money. income and prices in South Africa (1999) Nell

6.12 SUMMARY

Section Six of this paper used the information and lessons from the previous chapters to determine the implications of Inflation Targeting for South Africa. The eclectic approach used by the South African Reserve Bank was abandoned in favour of the *in vogue* new framework. The authorities, anxious to prove that South Africa is as economically sophisticated as other more developed economies, may have too hastily embarked on a framework that is not particularly suited to the economy. Problems with the framework include *inter alia*: high and volatile inflation rates; structural changes to the economy, impinging on the authorities' inflation forecasting ability; and socio-political factors, resulting in diverging views on the role of economic policy.

The nature of inflation in South Africa is an additional complicating factor. While diverging views exist on the cost-push/demand-pull nature of inflation, references in this paper show empirically that inflation in South Africa is essentially a cost-push phenomenon. Belligerent trade union behaviour, causing a highly rigid labour market, acts as a deterrent to employment creation while high and chronically rising high real wage levels stimulate inflation. Organised labour's role in inflation creation works against the efforts of the SARB. As organised labour does not see a real material interest in the attainment of the inflation target, its efforts will continue to hamper the inflation reduction process. This is aggravated by the fact that real wage levels are highly insensitive to growing unemployment, as well as by growing resentment with intractable and growing income inequalities even within previously and/or currently advantaged or disadvantaged population groups.

CHAPTER 7

CONCLUSION AND RECOMMENDATIONS

7.1 INTRODUCTION

This research study aimed to determine the appropriateness of Inflation Targeting to South Africa and to evaluate the successes to date. Therefore, producing information that will determine whether the South African Reserve Bank has been correct in their adoption of this framework, and to propose an alternative, more all-encompassing option.

The aims therefore included the following:

- To define and analyse the concept, Inflation Targeting.
- To analyse the potential advantages of incorporating such a framework into South African monetary policy.
- To define the requisite preconditions for the adoption of Inflation Targeting, and to assess whether or not these preconditions are met in South Africa.
- To draw lessons for South Africa from international experience.
- To determine whether Inflation Targeting, given South Africa's unique characteristics, is suitable to South Africa and can provide the benefits proposed by its advocates.
- To propose an alternative, more "holistic" economic policy framework that is geared specifically towards South Africa's unique circumstances and requirements.

The format of the study encompassed seven chapters.

Chapter 1 introduced the hypothesis that South Africa is notably different from most other developing economies, with the obvious differentiating features being as follows:

1. South Africa's racial and cultural heterogeneity;
2. Its often being described as "two nations in one", even by the President;
3. The pressure for redistribution of income and wealth, which results in militant labour union actions and unjustifiably labour-friendly legislation. This results in disproportionately high total real

labour costs, and rising nominal labour costs. These, as well as other, peculiarities induce high unemployment.

South Africa is quite unlike other emerging market economies, given that both the real wage level and efforts to boost it are highly insensitive (if sensitive at all) to the existence of high and possibly growing unemployment.

Monetary policy aiming at price stability is burdened with the need to counterbalance these cost-push pressures. Particularly high real interest rates would depress investment (particularly job-creating investment) as well as economic growth.

The chain of causality may become exceedingly detrimental and create a vicious circle. When the mixture of low employment (resulting, for example, in elevated crime levels and other off-putting social effects), low growth levels, a _restrictive_ labour force, and fears of further government policies to redistribute, arouse misgivings and reservations among foreign investors, the resultant capital outflows and downward pressures on the exchange value of the currency, give rise to price level pressures and inflation.

The above, in my opinion, constitutes a deep-seated structural problem in the South African economy that works against the simple application of Inflation Targeting in the manner of more homogenous, closely knit and sophisticated societies, such as those of the UK and New Zealand. These problems go further than just to complicate the forecastability of inflation in South Africa.

7.2 A DESCRIPTION OF THE INFLATION TARGETING FRAMEWORK

Chapter 2 defined and explained the concept of Inflation Targeting. The adoption of an Inflation Targeting model signifies a public announcement by monetary authorities for the attainment of a specified, quantified inflation target over a certain time period, on the understanding that price stability is the long-run goal of monetary policy.

The various definitions of Inflation Targeting incorporate identifying features of the framework and highlight requirements to be met to facilitate its application. For example, while Inflation Targeting typically entails increased communication with the public, calls for the abandonment of other nominal anchors, and increases transparency, these elements are factors that the authorities are required or encouraged to put in place as a foundation for the framework and its implementation.

While these elements are important, they are not, however, unique to Inflation Targeting. It is important, therefore, to distinguish between defining Inflation Targeting and identifying the features of monetary policy needed for the framework to be implemented. These requirements are laid out in Chapter Three.

7.3 THE CASE FOR INFLATION TARGETING

Chapter 3 illustrated that, potentially, Inflation Targeting has strong advantages. The provision of a nominal anchor for inflationary expectations, along with the effects of credibility, openness and transparency, are undeniably important advantages of Inflation Targeting. They can, however, be achieved without operating in an Inflation Targeting environment. Creating a public understanding of the stance of monetary policy can be achieved in other monetary regimes.

As Mishkin notes, various shortcomings exist within the framework, many of which are relevant to developing nations. Factors such as the requirement of not anchoring the exchange rate, as well as the effect of government-administered prices (which are of particular concern in South Africa), can complicate the framework and cause the potential advantages to be outweighed.

7.4 REQUIREMENTS OF INFLATION TARGETING

The application of Inflation Targeting is based on a variety of requirements. Factors such as an absence of fiscal dominance and the role of monetary policy are vital in deciding on the implementation of Inflation Targeting. The nature of Central Bank independence impacts on the implementation of Inflation Targeting. While these factors are important, factors that are unique to a country also need to be given consideration (given that their effects cannot be clearly determined), understanding that these factors can impinge heavily on the success of the framework.

7.5 THE INTERNATIONAL PERSPECTIVE

Internationally, on the face of it, Inflation Targeting has proven to be successful. The manner of its implementation differs widely across countries. While the majority of countries that have implemented Inflation Targeting have seen falling inflation rates, whether and to what degree these decreases are related to Inflation Targeting is uncertain.

Specific concerns exist for developing economies, given the greater degree of volatility in these economies. Factors such as shallow capital markets and reliance on seigniorage revenue are concerns specifically relating to developing economies. While inflation rates have been decreased in the developing economies analysed in this chapter, the sustainability of these results cannot yet be determined. The main conclusion is that each case needs to be considered on its merits, depending on the circumstances in the country concerned. Policy makers need to determine factors such as the sacrifice ratio to ensure that the framework is appropriate, and to decide whether the country would not be better off focusing on an acceptable balance between growth and inflation.

7.6 THE CASE OF SOUTH AFRICA

Section 7 of the paper used the information and lessons from the previous chapters to determine the implications of Inflation Targeting for South Africa. The more eclectic approach used by the South African Reserve Bank was abandoned in favour of the *in vogue* new framework. The authorities, anxious to prove that South Africa is as economically sophisticated as other more developed economies, may seem to have embarked with an undue haste on a framework that is not obviously suited to the economy. Possible sources of problems with the framework include *inter alia* South Africa's high and volatile inflation rates, structural changes to its economy that impinge on the authorities inflation forecasting ability, and socio-political factors, resulting in diverging views on the role of economic policy.

The nature of inflation in South Africa is an additional complicating factor. While diverging opinions exist on the cost-push/demand-pull nature of inflation, references in this paper show strong empirical support for the view that inflation in South Africa is essentially a cost-push phenomenon. Militant trade union behaviour within a highly rigid labour market acts as a deterrent to employment creation, while pressures for higher real wage levels stimulate inflation. Organised labour's role in inflation creation works against the efforts of the South African Reserve Bank. As organised labour does not perceive a real material interest in the attainment of the inflation target, its efforts will continue to complicate the inflation reduction process. Further complexities arise from the fact that the South African wage levels are insensitive to growing unemployment, as well as from resentment within income groups.

7.7 RECOMMENDATIONS

The analysis of Inflation Targeting in South Africa has highlighted problems and incongruities in the new framework. Inflation volatility, large differences in the inflation rates, structural changes within the economy that impact on inflation forecastability, and the fact that inflation in the 1990s has been essentially a cost-push phenomenon, throw the appropriateness of the framework for South Africa into doubt. Because views differ, given problems unique to the country, not all stakeholders have welcomed the framework.

The authorities, in the face of a failed GEAR, sought to implement a new policy, a policy that has been embraced internationally, a policy that has been implemented in developed and developing nations alike, but a policy that is indeed not suited to South Africa.

A framework is required that incorporates considerations pertinent to South Africa's unique and troublesome circumstances. If an inflation target is to be set, it should be set as part of an overall and comprehensive GEAR-type projection of South Africa's capabilities, encompassing attainable outcomes for growth, employment and redistribution, *to which organised labour has seen its way clear to subscribe, rather than as an exclusive price stability objective, set in apparent disregard of "everything else".*

The proposed framework, while incorporating many of the advantages that Inflation Targeting[51] boasts, such as transparency, communication and accountability, can be attained within a broader "national intention". An additional advantage of such an approach, clearly lacking in Inflation Targeting, is that the broader framework involved will have the potential to attract the active participation of organised labour by specifying outcomes thought realisable for growth and employment concurrent with *moderate targets for inflation*. Stakeholders, being labour, business and government, may be presented with a limited "menu" of alternative options. Based on differing priorities, a *target* of, for example, two percent inflation combined with three percent realisable economic growth (and a potential for increasing unemployment) may appear inferior to a less demanding target for inflation, combined with a higher real growth rate[52].

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51 While these advantages are integral to Inflation Targeting, they are not exclusive to it.

52 Green (1996) suggests a mildly similar concept, namely, targets for both inflation and growth.

What this means is that, having looked at various (realisable) combinations of employment, real growth and inflation, and having chosen the "most attractive" one, inflation is turned into _the target_; it may then, realistically, be hoped that the projected employment and output outcomes in that combination will _also_ be realised. In this case stakeholders will have had the opportunity to express themselves on the relative desirability of these various "good things".

The policy effectively involves a compromise with organised labour (in that employment needs will have been duly recognised alongside the need for some _moderate target for inflation_). In exchange for this, labour may be expected to moderate its aggression in their wage negotiations and to allow more labour market flexibility. Following from this, due to a more employer-friendly labour market, employers will be more likely to invest in labour and to de-emphasise labour-replacing capital equipment.

On the basis of the findings of the research study, the following recommendation is offered:

- It is recommended that further, in-depth, research is conducted into the possibility of determining an inflation target within a GEAR-type projection of possible outcomes for employment, real growth and price stability/inflation, to arrive at a framework that is 'tailor-made' for South Africa and its unique conditions.

APPENDIX 1

INFLATIONARY EXPECTATIONS IN SOUTH AFRICA

Inflation Targeting provides a nominal anchor for inflationary expectations. This is a key reason for the adoption of Inflation Targeting in both South Africa and other countries alike. This section analyses the trend in expectations, with the use of research undertaken through the Bureau of Economic Research at Stellenbosch University. Although the surveys were only officially undertaken in the third quarter of 2000, they provide valuable insight into the minds of the financial sector, business, labour and households.

Figure A1.1: Inflation expectations: third quarter 2000

	Headline CPI inflation			CPIX inflation		
	2000	2001	2002	2000	2001	2002
Financial sector	5.5	6.6	5.4	7.5	6.6	5.7
NF business[1]	6.8	7.0	7.2	7.6	7.7	7.8
Labour	6.3	6.3	5.8	7.1	7.0	6.7
Average above	6.2	6.6	6.1	7.4	7.1	6.7
Households	7.5	-	-	-	-	-
Grand average	6.5	-	-	-	-	-

[1] *Non-financial business sector*

Source: BER 2000

In the third quarter of 2000, expectations regarding the attainment of the target were low. The financial sector was the only party who expected the target for 2000 to be hit, while both labour and business expected the target to be missed. It is valuable to note that in this quarter both labour and the financial sector's sentiments were such that they believed that inflation would fall from 2000 to 2002, i.e., the corresponding expectations regarding economic growth were low with growth expected at 2 to 2,4 percent.

Figure A1.2: Inflation expectations fourth quarter 2000

Inflation expectations: 4th Quarter 2000

	Headline CPI inflation			CPIX inflation		
	2000	2001	2002	2000	2001	2002
Finance	5,7	6,4	5,3	7,9	6,7	5,8
Business	7,0	7,2	7,2	7,7	7,8	7,8
Labour	7,4	8,1	7,7	8,0	8,0	8,1
Average above	6,7	7,2	6,7	7,8	7,5	7,3
Households	7,4	-	-	-	-	-
Grand average	6,9	-	-	-	-	-

Source: B.E.R

The fourth quarter saw a modest increase in inflationary expectations within the financial sector for 2000 to 2002. Businesses' expectations increased for 2000 and 2001, while staying the same for the targeted period of 2002. The labour sample group showed a large increase in expectations, increasing over a full percentage point for the targeted period and roughly one percentage point for the years prior. On average expectations for the target period increased from 6.7 percent to 7.3 percent. Corresponding growth expectations for 2001 were between 2 to 2.4 percent.

Figure A1.3 Inflation expectations first quarter 2001

	Headline CPI inflation			CPIX inflation		
	2001	2002	2003	2001	2002	2003
Financial Analysts	6,0	5,1	4,9	6,1	5,5	5,1
Business	6,3	6,5	6,6	7,9	8,0	8,0
Trade Union Movement	6,5	6,7	6,3	7,9	7,7	7,7
Average above	6,3	6,1	5,9	7,3	7,1	7,0
Households	7,3	-	-	-	-	-
Grand average	6,5	-	-	-	-	-

Source: B.E.R 2001

The first quarter of 2001 saw a large decrease in the expectations of financial analysts for the target period from 5.8 percent to 5.1 percent. The expectations of the business community increased slightly to 8 percent, showing a miss of the target of 2 percent. The expectations of labour decreased for the target period, but were still 0.7 percent higher than the target. Corresponding economic growth expectations were higher at 2.9 percent

Figure A1.4: CPIX inflation expectations
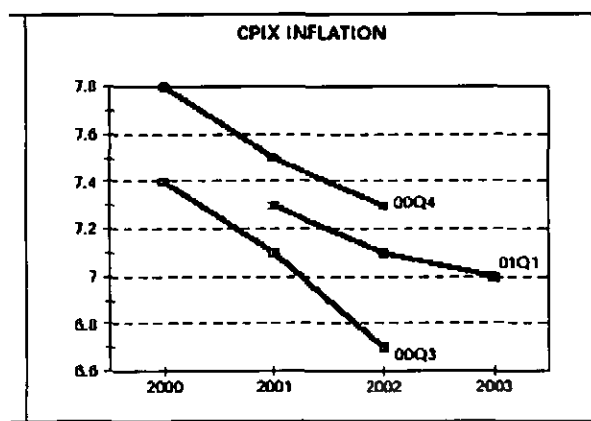
Source: B.E.R 2001

The summary shows that on average expectations increased from quarter three to quarter four, and then fell again in quarter one, but not to the same level as in quarter three. It is important to note overall that expectations are for the target not going to be attained.

By sector the results are as followed:

The financial sector's expectations moved from 5.7 percent to 5.8 percent from the third to the fourth quarter and then fell to 5.5 percent in the first quarter of 2001. The financial sector is the only sector that believes the target will be met.

Business's expectations were at 7.8 percent for the third and fourth quarters of 1999 and then increased to 8 percent for the targeted horizon. Business expectations are such that the target will be missed by 2 percent

Labour's expectations increased from 6.7 to 7.3 percent from the third to the fourth quarter, and then decreased to 7.1 percent for the target period. Labour does not believe the target will be met.

The data has important implications for monetary policy. An important effect and advantage of Inflation Targeting is to affect the price and wage setting behaviour of labour and business. In order for this to occur, stakeholders must believe that the targets are credible and will be hit. The evidence presented above shows that this is not the case. This presents a problem to Reserve Bank policy in that the public may perceive the target as being unattainable and thus does not have faith in the monetary authorities.

APPENDIX 2

INFLATION VOLATILITY AND DIVERGENCES IN SOUTH AFRICAN INFLATION RATES

Figure A2.1: CPIX inflation over 12 months
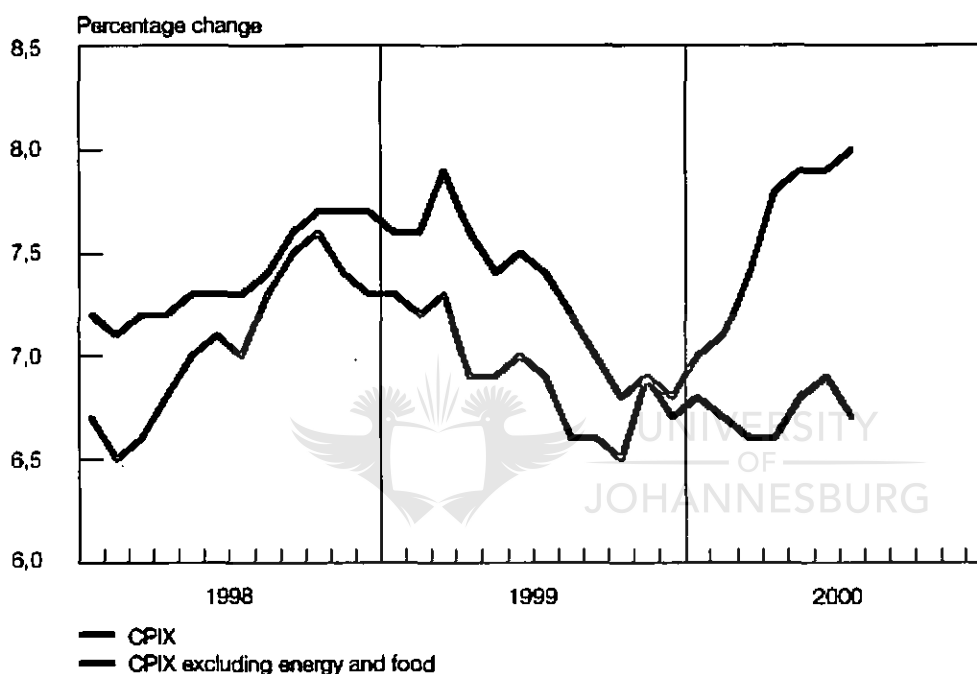
Source: SARB Annual Economic Report 2000.

Figure A2.1 shows the Inflation Targeting measure of inflation, the CPIX. Also included in the graph is the CPIX excluding the effect of the higher petrol prices and of the higher cost of food (due to the recent floods), as well as the effect of the higher Rand price of oil. The figure illustrates the impact of external factors on the CPIX, which reduce the controllability of inflation.

The CPIX bottomed in October 1999 at 6.5 percent, with inflation having fallen from 7.3 percent in March. However, the rate increased again to 8 percent in July 2000.

Both indicators exhibited upward movements in 1998, while beginning to fall in 2000 and following this trend towards the end of that year. In the beginning of 2000, the indices began to

diverge. While the index excluding the "shocks" decreased towards the inflation target of 3-6 percent, the Inflation Targeting index increased significantly towards the 8 percent plus mark. Although analysing the "CPIX excluding energy and food" shows fairly positive inflationary performance, this measure is largely irrelevant for Inflation Targeting purposes. An earlier argument made in this paper is the unpredictability of inflation due to the effect of external shocks. The figure illustrates the problem of targeting in a small open economy due to these factors.

Figure A 2.2: Consumer prices at quarter-to-quarter annualised rates

Consumer prices
Quarter-to-quarter changes at annualised rates

Period		Goods	Services	Overall	CPIX*
1998:	Year	6,0	7,9	6,9	7,1
1999:	1st qr	5,0	0,1	2,5	6,6
	2nd qr	5,8	-3,2	2,2	6,6
	3rd qr	6,8	-8,8	-0,7	6,8
	4th qr	7,3	-0,9	3,0	6,9
	Year	6,1	4,2	5,2	6,9
2000:	1st qr	8,4	5,3	6,6	8,7
	2nd qr	10,5	9,9	10,9	9,2

* For metropolitan and other urban areas
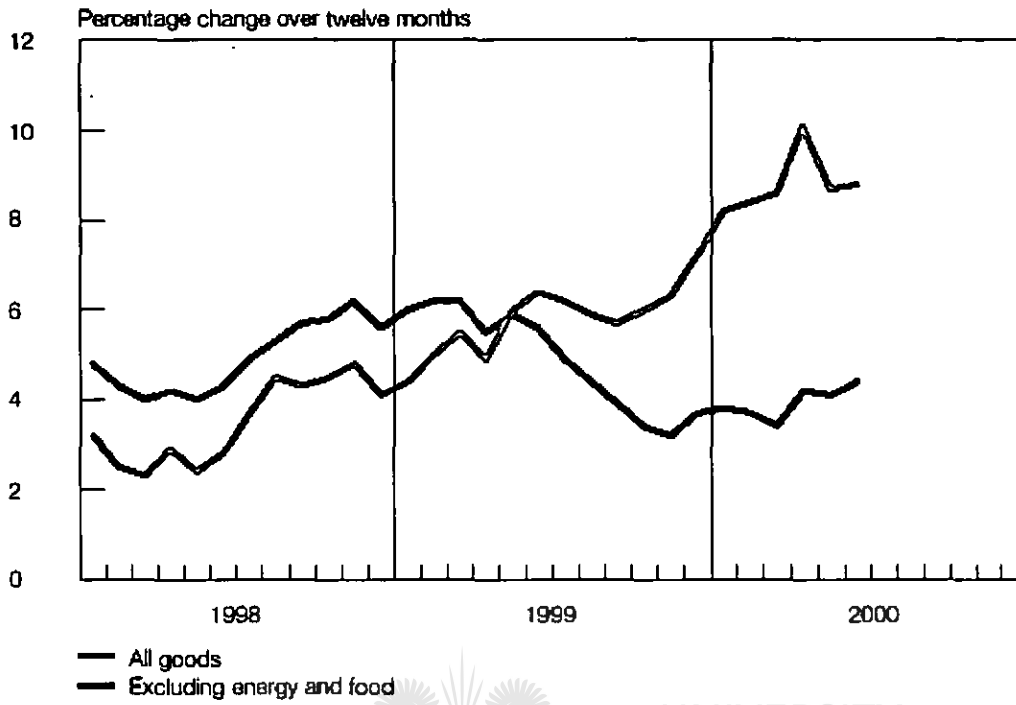
Source: SARB 2001

The year-on-year rate of increase in 1999 stayed at roughly 6 percent. Prices increased heavily due to higher oil prices, agricultural prices due to the floods, and the depreciation of the Rand. The importance of external factors cannot be overstated. As discussed earlier, regarding inflation forecasting, it is interesting to know whether these movements could have accurately been predicted.

Production Price Inflation

The trends in producer price inflation have an impact on the CPI and CPIX, with a lag. As would be expected, causes of the rapid increase in the index, according to the SARB, are the higher oil price, increased food prices and the depreciation of the rand, and increases in the production prices of certain of South Africa's trading partners *(illustrated in the next figure).*

Producer price inflation accelerated from 2 percent in 1998 to 10 percent in 2000.

Figure A 2.3: Production price inflation

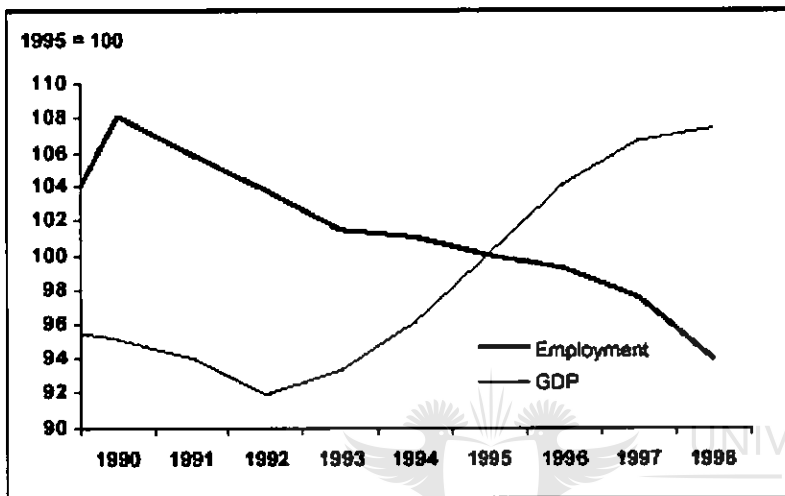Percentage change over twelve months
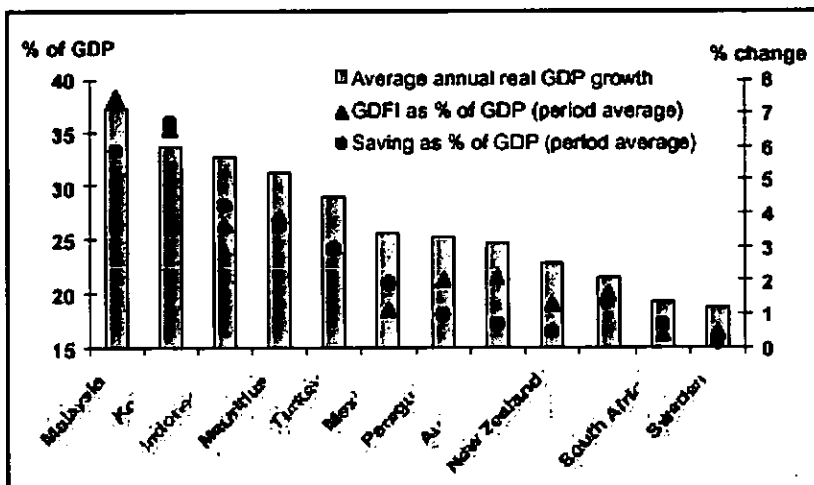

Source: SARB 2000

APPENDIX 3

STRUCTURAL CHANGES IN SOUTH AFRICA

Figure A.3.1: Employment and GDP in South Africa

Source: 2000 Budget

Figure A.3.2 GDFI and savings in selected countries

Source 2000 budget

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