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The Relative Merits and Implications of Inflation Targeting for South Africa

Prepared by Gunnar Jonsson¹

Authorized for distribution by Michael Nowak

August 1999

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Abstract

This paper describes the main elements of inflation targeting, reviews its pros and cons, and examines the experiences thus far in countries using this framework. It discusses the implications and relative merits of such a framework for South Africa, and concludes that it would be feasible and desirable for South Africa to adopt explicit inflation targeting. Doing so could reduce uncertainties about the Reserve Bank's objectives and enhance the transparency of monetary policy. However, further experience with the operational aspects of the repurchase system and a refinement of the inflation forecasting framework may be needed before inflation targeting is implemented.

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Contents	Page
I. Introduction.....	3
II. Inflation Targeting: A General Perspective	4
A. Main Elements of Inflation Targeting.....	4
B. The Pros and Cons of Inflation Targeting.....	6
C. Macroeconomic Experience in Inflation Targeting Economies.....	8
III. Inflation Targeting in South Africa.....	14
A. Pre-requisites for Inflation Targeting.....	14
B. Implications of Inflation Targeting for South Africa.....	15
C. Specific Concerns in South Africa?	19
IV Discussion	21
Tables	
1. Economies with Explicit Inflation Targeting Framework: Selected Features	5
Figures	
1. Consumer Price Inflation: 1985-1998.....	9
2. GDP Growth: 1985-1998.....	10
3. Unemployment Rate: 1985-1998.....	11
4. Volatility in Inflation and GDP Growth	13
5. South Africa: Inflation and GDP Growth, 1985-1998.....	18
References.....	23

I. INTRODUCTION

A number of industrial countries have adopted a framework for monetary policy that has become known as “Inflation Targeting” in the 1990s.² In most cases, inflation targeting was introduced after unsuccessful attempts to target some monetary aggregate (e.g., Canada) or the nominal exchange rate (e.g., United Kingdom and Sweden). Its increasing popularity also has been nourished by a growing consensus among policy-makers, economists, and the public in general that there is no long-term trade-off between inflation and output, and that price stability fosters economic growth. For similar reasons, several emerging market economies have recently adopted, or indicated that they intend to adopt, inflation targeting as their monetary policy framework.³

In South Africa, the general monetary policy objective is “to protect the value of the South African currency”. The South African Reserve Bank (SARB) attempts to achieve this objective by gradually bringing core inflation down to the level prevailing in South Africa’s major trading partners over the medium term.⁴ Given this goal, the SARB has opted for an eclectic approach to monetary policy, which is based on informal guidelines for growth in broad money and bank credit extension, supplemented by the monitoring of a range of economic and financial indicators.

The purpose of this paper is to examine the relative merits and implications of the adoption of an explicit or formal inflation targeting framework in South Africa. The next section describes the main elements of inflation targeting, reviews its pros and cons, and tentatively examines the experience thus far in the inflation targeting countries. Section III assesses whether South Africa complies with the pre-requisites for inflation targeting, and discusses

² Countries that have adopted inflation targeting include, in chronological order, New Zealand, Canada, United Kingdom, Sweden, Finland, Australia, and Spain. Useful references on their experiences with inflation targeting are Leiderman and Svensson (1995), Debelle (1997), Bernanke and Mishkin (1997), and Mishkin and Posen (1997). An examination of the scope for inflation targeting in developing countries can be found in Masson, Savastano, and Sharma (1997). Since January 1999, Finland and Spain should no longer be regarded as inflation targeting countries, as these countries have joined the European Monetary Union.

³ The Czech Republic has operated a fully fledged inflation targeting regime since December 1997. Israel, Chile, and Mexico are examples of countries that announce a one-year ahead inflation target as the objective of monetary policy, although other objectives (such as the nominal exchange rate) have also played an important role in the policy formulation (see, e.g., Morandé and Schmidt-Hebbel (1999) for discussions). Poland and Hungary have recently announced multi-year inflation targets with an eye to eventually joining the European Monetary Union.

⁴ See South African Reserve Bank (1999a).

the relative merits and implications of inflation targeting for South Africa. It also highlights some specific features of the South African economy, which may be of particular importance when considering the adoption of inflation targeting. Section IV concludes.

II. INFLATION TARGETING: A GENERAL PERSPECTIVE

A. Main Elements of Inflation Targeting

The main feature of an inflation targeting framework is that the central bank is given a clear mandate to concentrate on achieving an explicit inflation target as the overriding objective of monetary policy. The basic ingredients of inflation targeting include the announcement of a target for future inflation at some low level or range; periodic assessments of expected inflation over the relevant horizon on the basis of a set of variables; and systematic adjustments of the monetary policy instruments to maintain the projected inflation rate in line with the target.⁵ As an inflation targeting regime is forward looking in its nature, it requires a well functioning inflation forecasting framework and a relatively well developed financial market.

Table 1 shows some selected features of the inflation targeting framework in countries that have adopted such a policy framework. It can be noted that the inflation target relates to the medium-term rate and that it has been defined either in terms of a point, a band, or a ceiling; that the targeted price index often excludes certain (volatile) components; and that the institution responsible for the announcement of the target varies across countries.

As implemented in practice, inflation targeting is characterized as a fairly broad framework for the conduct of monetary policy rather than a specific policy rule. Indeed, inflation-targeting central banks maintain significant scope for applying discretion in the conduct of monetary policy, as the inflation targets typically need to be attained only over a multi-year horizon and are in many cases specified in terms of bands rather than point estimates. In addition, as inflation targeting does not imply a specific operational rule for the monetary policy instruments used by the central bank, inflation targeting is compatible with different opinions about the appropriate stance of monetary policy. Thus, good judgment on the part of the central bank is an indispensable element for successful inflation targeting.

Another important element in an inflation targeting framework is a relatively high degree of transparency of monetary policy and accountability of the central bank. All inflation-targeting central banks have intensified its efforts in communicating and clarifying to the public its monetary policy. These efforts are designed to explain clearly the goals of monetary policy, describe and justify the policy measures being taken, and explain the recent performance of monetary policy, always with a focus on future inflation as the fundamental objective of the actions of the central bank. A number of vehicles have been used for the

⁵ See, for example, Svensson (1997) for a theoretical discussion of the mechanisms of inflation targeting.

Table 1. Economies with Explicit Inflation Targeting Framework: Selected Features				
Country	Date of Adoption	Target Rate and Horizon	Price Index	Other Details
New Zealand	March 1990	0-2 percent ¹ through the 5-year tenure of the Governor of the Reserve Bank.	Consumer price index (CPI) excluding interest cost components, indirect taxes and subsidies, government charges, and significant price effects from changes in the terms of trade.	Target set in Policy Target Agreements (PTA) between the Minister of Finance and the Governor of the Reserve Bank of New Zealand.
Canada	February 1991	1-3 percent through 1998.	CPI excluding food, energy, and the effect of indirect tax changes.	Target set by the Minister of Finance and the Governor of the Bank of Canada.
United Kingdom	October 1992	Lower half of the 1-4 percent range by spring 1997; 2½ percent or less thereafter. ²	Retail price index excluding mortgage interest payments (RPIX).	Target set by the Chancellor of the Exchequer. ²
Sweden	January 1993	2 percent \pm 1 percent in 1996 and beyond.	CPI	Target set by the Bank of Sweden.
Finland	February 1993 (Joined the EMU in January 1999)	About 2 percent in 1996 and beyond.	CPI excluding indirect taxes, government subsidies, house prices, and mortgage interest payments.	The target rate has no explicit band. Target set by the Bank of Finland.
Australia	April 1993 (Approx.)	Underlying inflation of 2-3 percent, on average, over the economic cycle.	CPI excluding the impact of interest rates on mortgage and other interest payments, indirect tax changes, and certain other volatile price items.	Target set by the Reserve Bank of Australia and endorsed by the government in the Statement on the Conduct of Monetary Policy by the Treasurer and the Governor of the Reserve Bank.
Spain	November 1994 (Joined the EMU in January 1999)	Less than 3 percent by 1997; 2 percent by 1998. ³	CPI	Target set by the Bank of Spain.
Czech Republic	December 1997	3½ - 5½ percent by 2000. Control target of 5½ - 6½ percent in 1998.	CPI excluding regulated prices and prices affected by administrative measures.	Target set by the Czech National Bank.

Sources: IMF (1996); Masson, Savastano, and Sharma (1997); Debelle (1997); Czech National Bank (1998); updated as necessary.

¹ Subsequently increased to 0-3 percent.

² In May 1997, a symmetric point target of 2½ percent was adopted. At the same time, the Chancellor of the Exchequer announced that the Bank of England would be given operational independence to set interest rates in order to achieve the inflation target (which would still be set by the UK Treasury). Inflation deviations by more than \pm 1 percentage point outside the target would require the Governor to write an open letter to the Chancellor to explain the reasons for the deviation.

³ Announced in December 1996.

greater transparency, including regular publications of extensive inflation reports, appearances of central bank officials before parliamentary committees, and published minutes of monetary policy council meetings.

The inflation target also provides a yardstick against which the central banks' action can be evaluated, and the enhanced transparency associated with inflation targeting has implied that the central banks have naturally become more accountable about their actions in the public debate and the political process.

B. The Pros and Cons of Inflation Targeting

The main advantage of adopting an inflation targeting framework would be to raise the chances of attaining and maintaining a low and stable rate of inflation, with potential concomitant beneficial effects on economic growth. An inflation targeting framework could help the central bank reduce the pressures to conduct expansionary monetary policies usually inspired by short-term considerations. Moreover, the explicit mandate of the central bank to concentrate on achieving low inflation, together with the increased transparency of monetary policy and accountability, would tend to reduce uncertainties among price- and wage-setters about the future path of the inflation rate, and thereby contribute to more coordinated and accurate inflation expectations.

A second advantage of a judiciously implemented inflation targeting regime—compared with a framework based strictly on monetary or exchange rate targeting—is that it could lead to a better cyclical adjustment of the economy. This is because a typical inflation targeting framework leaves significant scope for applying discretion in the conduct of monetary policy, and thus provides the central bank with flexibility to deal with aggregate demand and supply shocks. For instance, when a positive aggregate demand shock leads to an economic boom (an increase in the output gap) that puts upward pressure on inflation, the policy response under an inflation targeting framework would be a tightening of monetary policy, which would help contain both the inflationary pressures and the increase in the output gap. When the economy is affected by a supply shock (e.g., a shock to agricultural output and prices), aiming at an underlying inflation measure that excludes the direct effects of such shocks may be consistent with stabilizing the output gap.⁶ In contrast, a rigid target for the exchange rate or some monetary aggregate might not be compatible with stabilization of the same type of shocks, implying more volatile output and inflation developments.

Because of the advantages mentioned above, an inflation targeting framework might be perceived as more permanent than alternative monetary policy regimes, and eventually become more credible. This could facilitate the operation of monetary policy, and possibly contribute to an improvement and stabilization of investor sentiment. In contrast, the credibility of a monetary policy framework based on strictly targeting a monetary aggregate

⁶ See, e.g., Debelle (1999), Haldane (1997), and Jadresic (1999) for further discussions on the relationship between inflation targeting and output stabilization.

or the exchange rate may erode as economic fundamentals change over time. Such a framework would then be less likely to endure, with the added problem that abandoning it could compound the disruption of the economy.

An inflation targeting framework, however, provides no guarantee that the central bank will successfully use its discretion for appropriately setting monetary policy. Compared to a monetary framework based on targeting money growth or the nominal exchange rate, inflation targeting is, arguably, more complicated to implement. The forward looking nature of an inflation targeting framework implies that the central bank must have access to both a decent inflation forecasting model and policy instruments that affect the inflation forecast with reasonable precision.

Compared to a fully discretionary monetary policy framework, there is also a risk that inflation targeting could lead to inefficient output stabilization, especially in the event of large exogenous shocks. For instance, if the central bank attempts to target headline inflation at a relatively short horizon, a temporary shock to the nominal exchange rate might trigger an excessive response by the central bank. This could lead to instability in other important variables of the economy, such as output, interest rates, and the external current account balance. However, many inflation targeting countries have attempted to reduce these risks by introducing well designed “escape clauses” and by establishing a sufficiently wide band around the inflation target.⁷

Finally, as with any monetary policy framework, the introduction of inflation targeting involves the risk that an initial disinflation process could result in short-term output costs if the private agents do not immediately find the policy framework credible. Of course, these costs will be lower the more clear the central bank is in explaining its goal, the better the public understands the rationale for adopting inflation targeting, and the more explicit is the government in its endorsement of the inflation targeting regime. Also, adjustments of inflation expectations would be facilitated if the targeted path for the decline in inflation is perceived as realistic.

As indicated above, two alternative options to inflation targeting are to strictly target a monetary aggregate or the nominal exchange rate. A thorough discussion of the relative

⁷ The recent experience of New Zealand may provide an example of the latter; the Reserve Bank of New Zealand’s attempt to keep inflation between 0 and 2 percent in the short-run induced an increase in short-term interest rates and a (real) appreciation of the New Zealand dollar which contributed, at least in part, to a deterioration in competitiveness and the external current account balance. While the larger current account deficit also reflected a fiscal stimulus and a deterioration of the investment account of the balance of payments, this experience illustrates that careful thought is needed in the design of an inflation targeting framework. The inflation target in New Zealand was subsequently increased to 0-3 percent.

merits of these monetary policy regimes is beyond the scope of the current paper.⁸ In short, it can be noted that the main advantages with those regimes are that they might be easier to implement than inflation targeting, that they promote an almost immediate accountability of the central bank, and that they (at least temporarily) contribute to keeping inflation under control. However, many countries have abandoned monetary targeting because the relationship between money growth and various goal variables (such as inflation and nominal income) has proven unstable, in part due to sharp shifts in the demand for money or permanent shocks to velocity. Likewise, exchange rate targeting countries have often been subject to speculative attacks on their currencies that have led to damaging macroeconomic consequences, including sizeable interest rate adjustments and output instability.

C. Macroeconomic Experience in Inflation Targeting Economies

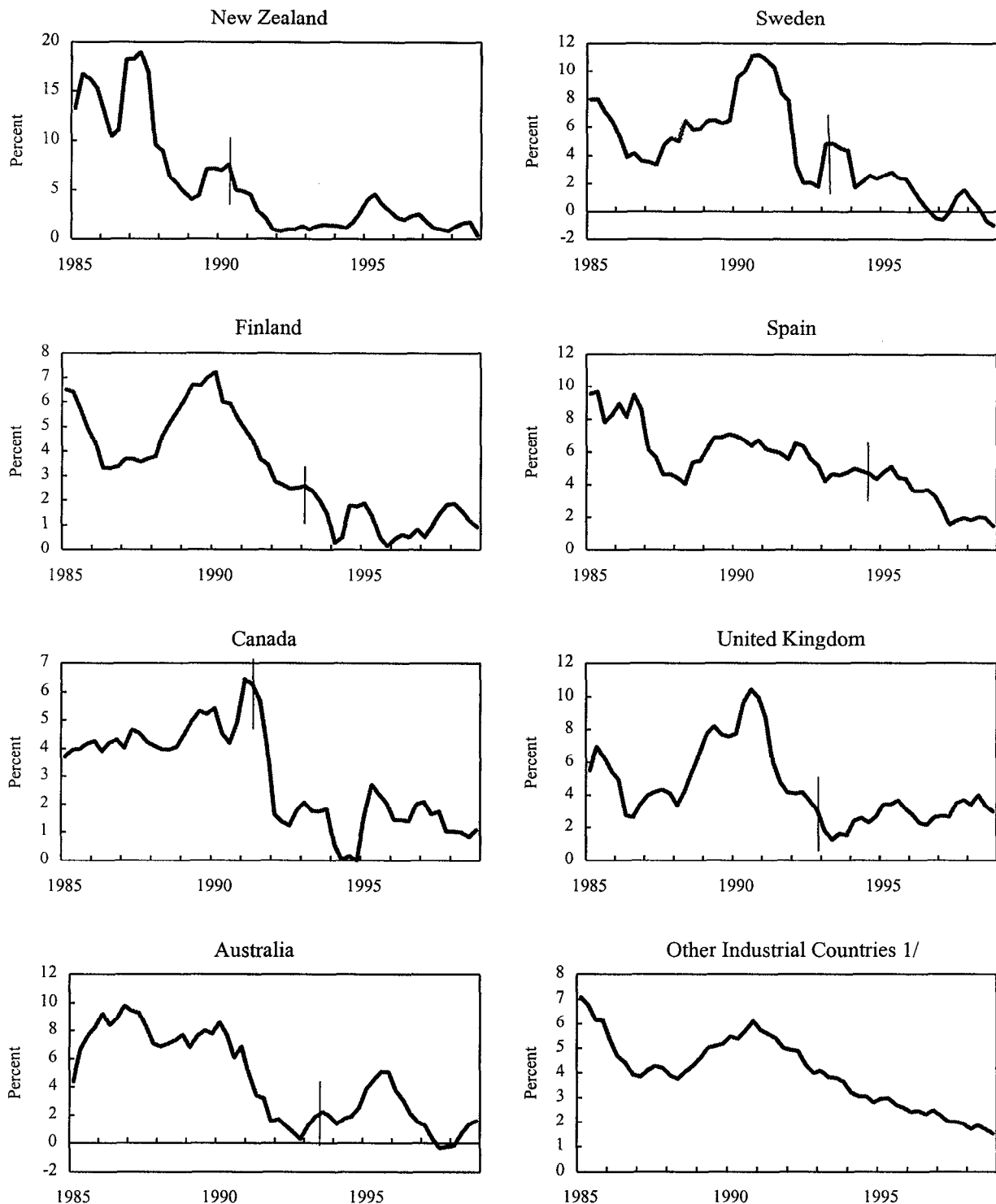
As the inflation targeting framework only has been in place for a few years in most countries, it is too early to undertake a definitive empirical evaluation of the experience with this regime, especially since several inflation targeting countries have yet to operate the system over a complete business cycle. Nevertheless, figures 1-4 below tentatively compares the inflation and output developments in the inflation targeting economies with those of some other industrial economies during the period 1985-1998.

Figure 1 shows inflation developments in the inflation targeting countries before and after the introduction of the inflation targeting regime, and in some other industrial (non inflation-targeting) countries. In all inflation targeting countries, inflation was on average clearly lower during the years after the introduction of the new regime. However, two things can be noted; first, except for Canada, inflation seemed to be on a downward trend already before the introduction of inflation targeting, and second, inflation has fallen during the 1990s also in the countries without inflation targeting.

Figures 2-3 show developments in the GDP growth rate and unemployment rate for the same countries and time period as in Figure 1. The GDP growth rate exhibits a strikingly similar pattern across the countries (Figure 2); following positive growth rates in the late 1980s, there was a sharp drop in economic activity in the early 1990s, followed by a subsequent recovery. As expected, the average rate of GDP growth and its pattern seem to be unaffected by whether or when inflation targeting was implemented. The unweighted average rate of GDP growth for the inflation targeting countries as a group was quite similar before and after the recession in the early 1990s, and also similar to the average growth rate for the “other industrial countries”. For example, the annual GDP growth rates in the inflation targeting countries was on average 3.4 percent during both the period 1985-89 and the period 1994-98, which can be compared with an average GDP growth rate of 3.1 and 3.0 percent for the “other industrial countries” during the same time periods.

⁸ Mishkin (1998) provides a comprehensive discussion of international experiences with different monetary policy regimes.

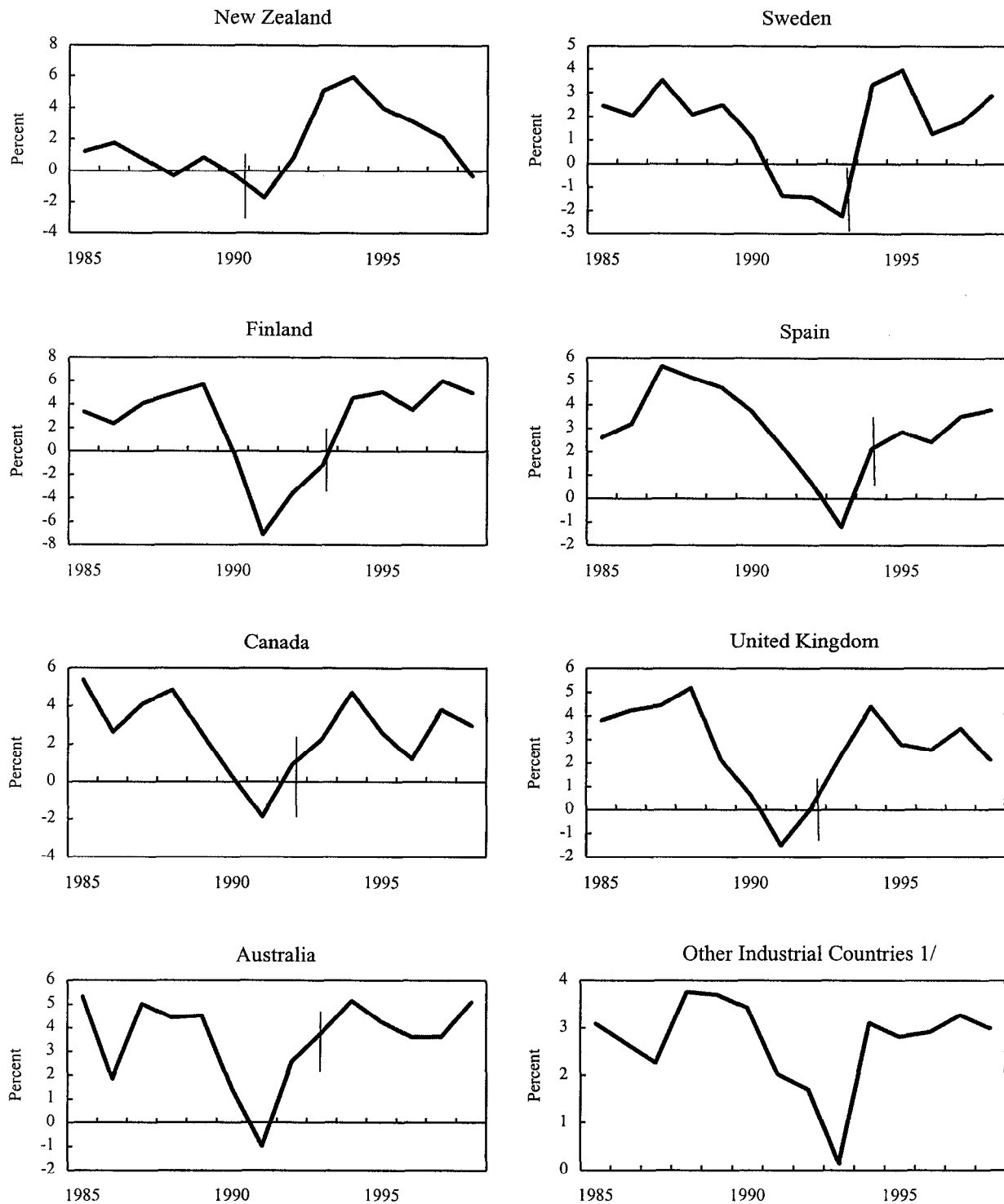
Figure 1. Consumer Price Inflation: 1985-1998
Vertical lines indicate approximate date of introduction of inflation targeting.



Source: IMF, International Financial Statistics

1/ Unweighted average of inflation in Austria, Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Switzerland, and the United States.

Figure 2. GDP growth: 1985-1998
Vertical lines indicate approximate date of introduction of inflation targeting.

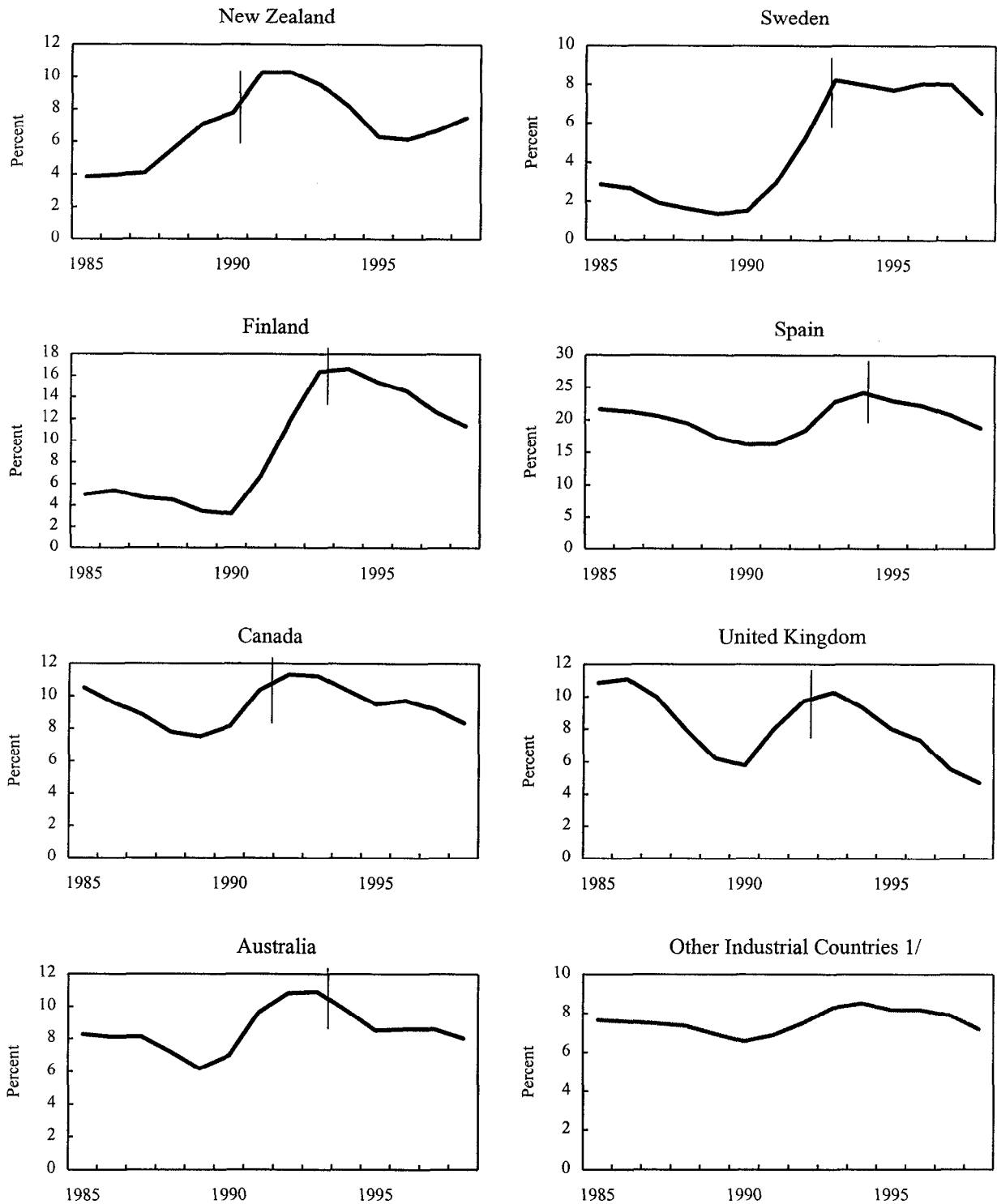


Source: IMF, World Economic Outlook.

1/ Unweighted average of GDP growth in Austria, Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Switzerland, and the United States.

Figure 3. Unemployment rate: 1985-1998

Vertical lines indicate approximate date of introduction of inflation targeting.



Source: IMF, World Economic Outlook.

1/ Unweighted average of the unemployment rates in Austria, Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Switzerland, and the United States.

Figure 3 indicates that the recession in the early 1990s contributed to an increase in open unemployment in most industrial countries. As unemployment in general is much more persistent than output growth, the average rate of unemployment has become somewhat higher in both the inflation targeting countries and the “other industrial countries” during the latter half of the 1990s. It should also be noted that the introduction of inflation targeting did not seem to cause the increase in unemployment, as the rise in unemployment clearly preceded the switch in the monetary policy regime. This pattern is especially pronounced in Sweden and Finland—the two countries where the recession and the associated rise in unemployment in the early 1990s were most severe.

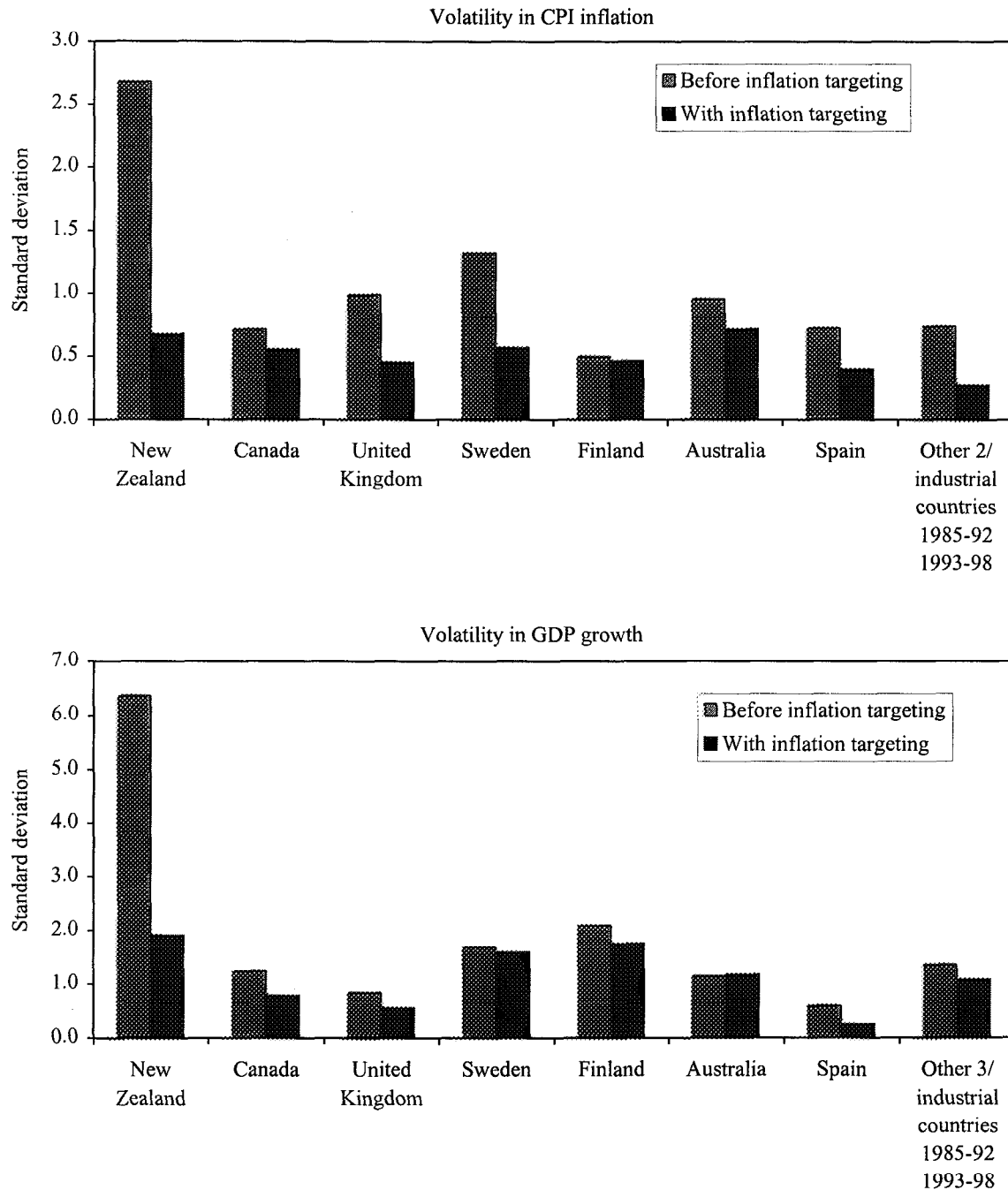
Regarding the stabilization aspects of the economy, it was argued above that a judiciously implemented inflation targeting framework might lead to a better cyclical adjustment of the economy compared with exchange rate or monetary targeting. On the other hand, it was also suggested that in the event the central bank emphasizes the price stability objective within a very short horizon, there is a risk that inflation targeting would lead to too little output stabilization. However, empirical evidence thus far does not really support any of these arguments. Figure 4 shows the standard deviations in the quarterly changes in inflation and output growth in the same countries as studied above. The top panel indicates that inflation has become less volatile after the introduction of inflation targeting in all inflation targeting countries, but it has also become less volatile in the “other industrial countries”. Hence, as the average rate of inflation has fallen in most industrial countries, so has the volatility in inflation.⁹

More interesting is, arguably, that the reduction in inflation volatility has not been accompanied by higher output volatility (see the lower panel of Figure 4). Output volatility has been about the same before and after the introduction of inflation targeting in countries such as Australia and Sweden, while it has fallen somewhat after the shift in monetary policy regime in other inflation targeting countries. Thus, there seems to be very little empirical evidence for the argument that enhanced credibility only can be achieved at the expense of less flexibility.¹⁰

⁹ That the average level and volatility of inflation are positively correlated is a well-known empirical regularity, see e.g., Taylor (1981).

¹⁰ The “credibility versus flexibility tradeoff” argument has been emphasized by, e.g., Rogoff (1985).

Figure 4. Volatility in inflation and GDP growth 1/



Source: IMF, International Financial Statistics

1/ The standard deviations are calculated of the change in the quarterly growth rates over the periods 1985:1 to the quarter in which inflation targeting was introduced, and from the subsequent quarter to 1998:4, except for "other industrial countries" where the time periods are 1985:1-1992:4 and 1993:1-1998:4, respectively.

2/ Unweighted average of standard deviations in Austria, Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Switzerland, and the United States.

3/ Unweighted average of standard deviations in Austria, France, Germany, Italy, Japan, Netherlands, Norway, Portugal, Switzerland, and the United States.

III. INFLATION TARGETING IN SOUTH AFRICA

This section discusses, first, whether it is feasible for South Africa to implement inflation targeting; and, second, what the implications would be if South Africa moved to such a monetary policy framework.

A. Pre-requisites for Inflation Targeting

The pre-requisites needed to adopt an inflation targeting framework for monetary policy include an absence of commitments to objectives that might conflict with low inflation, an independent central bank, and sufficiently developed capital and money markets. In general, South Africa seems to satisfy these conditions.¹¹

The objective of monetary policy

In an inflation targeting regime, the paramount goal of monetary policy is achieving the inflation target. Any other goal can only be pursued to the extent that it is consistent with the inflation target. The conduct of monetary policy cannot be subordinated to fiscal needs—a reliance on revenue from seigniorage or the need to provide central bank financing to the government—nor can monetary policy be used to ultimately target the exchange rate or any other nominal variable. In South Africa's case, there is no fiscal dominance of monetary policy, nor is there a commitment to target the nominal exchange rate or other nominal variables with monetary policy.

The independence of the central bank

The central bank must be capable of pursuing the inflation goal free of constraints on its use of monetary policy instruments. This does not necessarily mean it must be free to set its own goals (goal independence), but it must be free to use the monetary policy instruments at its disposal in the pursuit of the inflation goal (instrument independence). The actual monetary policy decisions are typically taken by a monetary policy committee of the central bank or by the central bank board. In all inflation targeting countries, the central banks have instrument independence, but the establishment of the inflation target varies across countries. In some countries (Australia and Sweden), the target is announced by the central bank and subsequently endorsed by the government; in other countries (Canada and New Zealand), the target is jointly announced by the central bank and the government.

In South Africa, the SARB has constitutionally-granted goal and instrument independence, and it is free to unilaterally announce a move to inflation targeting if it so desires. Nevertheless, in the event South Africa would move to inflation targeting, it is possible that a

¹¹ Casteleijn (1999) and CREFSA (1998) seem to share the view that it would be feasible to adopt inflation targeting in South Africa, subject to some technical issues as discussed below.

jointly announced target for the inflation rate by the SARB and the government would add to the credibility of the new policy framework.

The effectiveness of monetary policy

To control inflation (under any monetary policy framework), there must be a reasonably stable relationship between the monetary policy instruments and inflation outcomes. In an inflation targeting framework, inflation must also be forecastable to a reasonable degree. The authorities therefore need access to policy instruments that are effective in influencing the economy, while money and capital markets must be sufficiently developed so as to react quickly to the use of these instruments. Policy changes are then typically introduced by changing liquidity conditions at the short end of the yield curve, which developed financial markets transmit throughout the yield curve in a speedy fashion.

South Africa has a quite sophisticated capital market and policy changes tend to influence the money market interest rates in a transparent fashion. The SARB's repo system for overnight loans together with other open market operations undertaken by the SARB constitute an appropriate framework for effective monetary policy operations. It is possible, however, that some further experience with the repo system (which was introduced in March 1998), including how changes in the repo rate feed into the inflation forecasts, is needed before a fully fledged inflation targeting framework is introduced.

Given the forward-looking nature of the inflation target, changes in monetary policy must be made on the basis of forecasted changes in inflation. This requires that the authorities be able to develop a satisfactory forecasting framework. While South Africa has undergone a degree of structural change in recent years, inflation appears to be relatively well-behaved and forecastable. The SARB regularly undertakes and revises its inflation projections using a model which is based on a range of financial and economic variables, including a set of leading indicators of inflation (see, e.g., Pretorius (1997)). Nevertheless, considering the importance of accurate inflation projections in an inflation targeting regime, it might be necessary to further refine and strengthen the SARB's forecasting framework in the event the authorities decide to switch to an inflation targeting framework.

Indeed, according to Casteleijn (1999), the SARB has thus far been of the opinion that South Africa has yet to reach the stage where a fully fledged inflation targeting framework could be adopted, mainly because of the above discussed technical aspects: "...[the need for] a continuous assessment of the relationship between the instruments of monetary policy and the inflation target... [and a] comprehensive forecasting framework... appear to preclude the immediate adoption of an explicit inflation target".

B. Implications of Inflation Targeting for South Africa

Given that the most important underlying conditions for inflation targeting are in place in South Africa and the technical issues could be addressed, the next question is whether it would be desirable to implement such a regime, and what the implications would be.

As mentioned above, the primary objective of the SARB is “to protect the value of the South African currency”, and the SARB attempts to achieve this objective by using an eclectic approach to monetary policy, where the general goal is to gradually bring core inflation to a level of 1-5 percent during the next three years. This objective is supported by informal guidelines for growth in broad money (6-10 percent) and bank credit extension (about 10 percent), and supplemented by the monitoring of a range of financial indicators, such as the output gap, the nominal exchange rate, the shape of the yield curve, various price indices, and the fiscal policy stance.¹²

Thus, the current monetary policy framework is in many aspects similar to an explicit inflation targeting framework. In particular, the mandate to “protect the value of the currency” is interpreted as a mandate to control inflation; the SARB takes a forward looking approach to monetary policy to achieve this objective; and it uses a set of financial indicators and intermediate objectives to achieve the inflation objective. Indeed, the SARB has referred to its monetary policy framework as “informal inflation targeting”.¹³

Consequently, if South Africa was to implement a more formal inflation targeting framework, the actual conduct of monetary policy may not change in a significant way. Policy actions would still have to be guided by the medium-term inflation outlook, with due attention to the developments in a set of financial and economic variables.

Nevertheless, it is likely that the absence of an explicit and well-defined target for monetary policy under the current regime has created some uncertainties in the public and among market participants about the SARB’s objectives. These uncertainties might have been reinforced by the observations that the growth rates of broad money and credit extension have exceeded their indicative guidelines in recent years, and that the SARB occasionally has intervened heavily in the spot and forward foreign exchange markets. Thus, to the extent that a formal or explicit inflation targeting framework would be perceived as a stronger commitment to prudent monetary policy in the medium-term and bring more clarity to the conduct of the SARB’s monetary policy, some of the uncertainties might be removed. This would, in turn, improve the accuracy and coordination of inflation expectations, and possibly reduce the risk premia on investment in South Africa, implying a lower path for long-term interest rates.

Thus, the main implication and advantage of a formal inflation targeting regime in South Africa would be the associated enhancement of both the transparency of monetary policy and the accountability of the SARB. Under an inflation targeting framework, the SARB would need to intensify its efforts in communicating and clarifying to the public its monetary policy. Like all inflation-targeting central banks, this communication would include frequent disclosure of the SARB’s inflation projections and associated monetary policy measures by,

¹² See South African Reserve Bank (1999a).

¹³ See South African Reserve Bank (1999b).

for example, regular publications of inflation reports and release of more general economic forecasts, as well as regular testimony to parliament. Moreover, with clearly specified targets for monetary policy and more frequent communication of the plans and outcomes of monetary policy, the SARB would naturally become more accountable about its actions. The enhancement of transparency and accountability, together with a clear mandate to focus on inflation, could also help limit short-term motivated criticism of the SARB's actions.

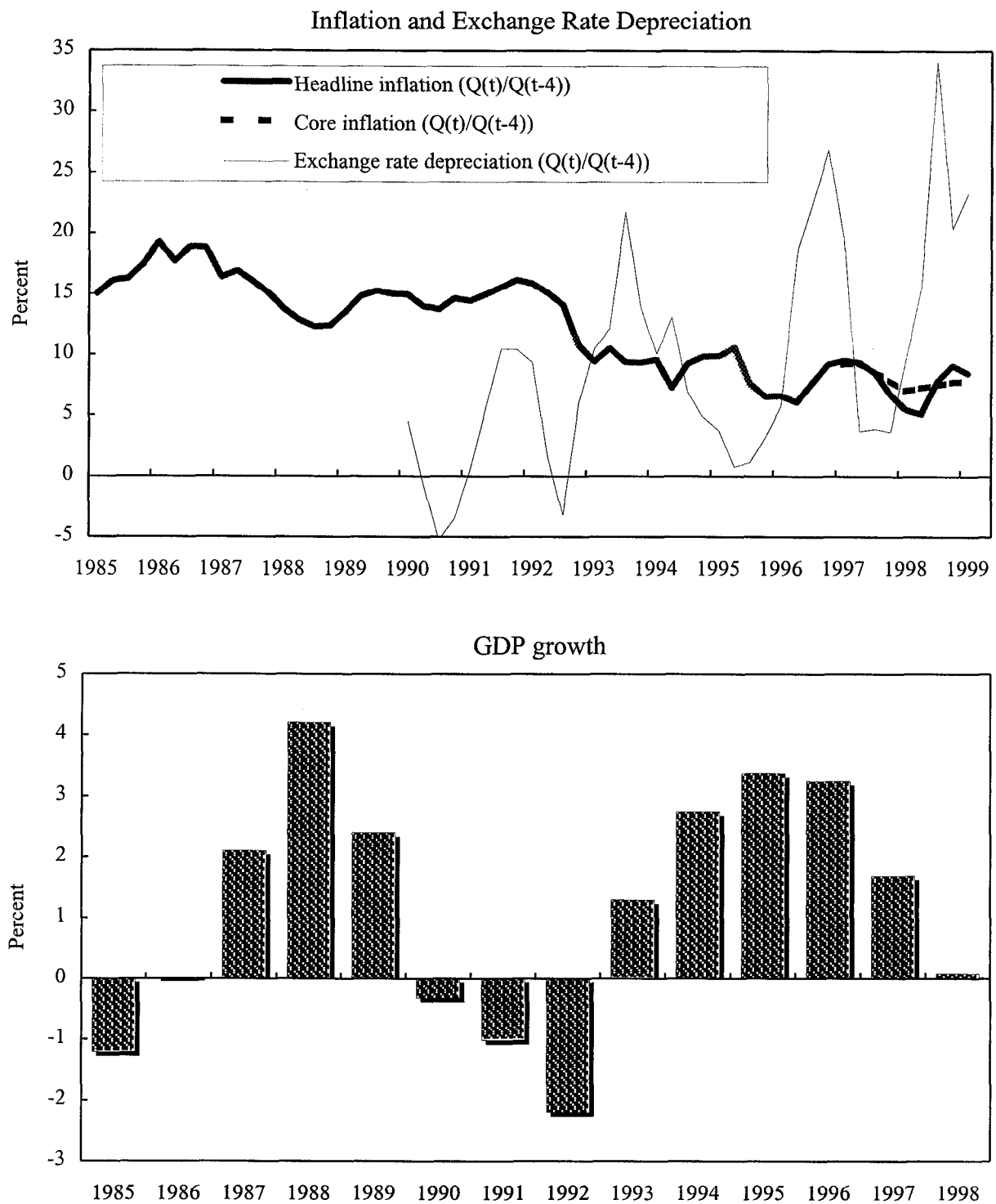
In the event there is a breach of the inflation target, it could be difficult to determine whether the breach of the target reflects policy failure or events outside the control of the central bank, as there typically is a long lag between the change in the instruments of monetary policy and the inflation outcome. However, the increased transparency of monetary policy and accountability of the SARB will to some extent address this problem: announcing policy changes, and making explicit their rationale, can help make apparent whether any breach is caused by a failure to respond to inflationary pressures, whether the breach was foreseeable at the time of the policy decision, or whether it reflects shocks outside of the control of the SARB.

An alternative policy option to inflation targeting in South Africa would be to return to the regime that was introduced in the mid 1980s: targeting of broad money (M3). This monetary policy framework contributed to financial stability and a gradual reduction in inflation for a number of years (see Figure 5). However, the second half of the 1990s was characterized by a substantial degree of financial deepening, in part as a result of the foreign exchange liberalization, and money demand increased rapidly. As a consequence, growth in broad money exceeded the guidelines for several years, causing the SARB to move to the current more eclectic approach to monetary policy. In general, it can be expected that further financial deepening and other structural changes will cause the demand for any monetary aggregate to be uncertain in the short-run, and, in addition, that the SARB could have little capacity to control it.¹⁴ In that case, a more strict targeting of a monetary aggregate would be unlikely to yield the desired inflation outcomes. Moreover, as earlier noted, the indicative guidelines for broad money have been constantly breached in recent years, and the announcement of a strict monetary targeting regime might therefore not be perceived as very credible.

A third option would be to gear monetary policy to maintaining the nominal exchange rate within a predetermined path. However, this seems to be an inappropriate framework for South Africa, as interest rates would have to be adjusted to any changes in sentiment among international investors. This regime would not only be inefficient for output stability, but might also invite speculative attacks on the rand, especially in a context of low international reserves, a large net oversold forward position, a volatile external environment, and high and persistent unemployment.

¹⁴ Although some studies indicate that the demand for broad money is relatively sensible once one controls for certain structural breaks (see Hurn (1991), Jonsson (1999), and Moll (1999)), it is difficult to predict the quantitative effects and timing of the trend breaks.

Figure 5. South Africa: Inflation and GDP growth, 1985-1998
(Annual growth rates)



Source: South African Reserve Bank, *Quarterly Bulletin*; and Statistics South Africa.

C. Specific Concerns in South Africa?

Although inflation targeting seems to be both a feasible and desirable framework for South Africa, (at least) three additional issues need to be addressed. First, do the fact that South Africa is an emerging market economy, with associated large swings in capital flows and the nominal exchange rate, pose any particular problems for inflation targeting? Second, given the potentially very divergent views across the business community, the labor organizations, the government, and the SARB on the appropriate stance of monetary policy—especially in light of South Africa's high unemployment rate—is it possible and desirable to implement inflation targeting? Third, does the SARB's objective of gradually reducing its large open foreign exchange position in the forward market constrain the possibility of operating an inflation targeting framework?

Inflation targeting and volatile capital flows

As noted in the introduction, the Czech Republic has recently implemented a fully fledged inflation targeting framework, and other emerging market economies may follow in the near future (e.g., Poland, Hungary, and Brazil). One important feature of the emerging markets in recent years, including in South Africa, has been the very large and volatile capital flows and associated swings in the nominal exchange rate. How do these issues affect the feasibility and desirability of inflation targeting?

Three aspects deserve to be mention. First, it is possible that inflation targeting, to some extent, could actually dampen the volatility in the capital flows and the associated sharp swings in the nominal exchange rate. In many emerging market economies, the currency has been attacked precisely because the central banks have had an implicit or explicit exchange rate objective that was not perceived as credible (e.g., Mexico in 1994 and Brazil in 1998/99). In South Africa, it is likely that some of the volatility in the foreign exchange markets has been driven by uncertainties about the SARB's objectives regarding the exchange rate. Thus, to the extent that the adoption of inflation targeting signals a clear commitment to allow the exchange rate to float, i.e., to not defend a particular level or path for the exchange rate, such a regime might contribute to more stable foreign exchange and capital markets.

Second, in the case of South Africa, it is interesting to notice that despite the large capital in- and out-flows and the associated sharp swings in the nominal exchange rate during the 1990s, inflation did not fluctuate nearly as much, especially when the focus is on core inflation. In particular, large capital outflows in 1994, 1996 and 1998 caused the nominal exchange rate to depreciate substantially; however, the impact on (core) inflation was much less.¹⁵ Although this pattern possibly is associated with a contemporaneous movement in

¹⁵ For example, although the nominal effective exchange rate depreciated by 20 percent between March and September 1998, core inflation only increased from 7 percent in March 1998 to 8 percent in March 1999.

economic activity, it seems that the SARB to some extent can control the inflationary impulses from the volatile capital flows.

Third, as discussed above, an inflation targeting regime allows for certain fluctuations in the actual inflation rate, especially if the inflation target is set in terms of a band rather than a point. Notwithstanding the above two arguments, it is possible that it would be appropriate for an emerging market economy to have a band around the inflation target that is somewhat wider than the common ± 1 percent.

Inflation targeting and divergent views on monetary policy

In the economic literature (and in the South African press) it has been debated whether the central bank or the government should set the inflation target, i.e., whether the central bank should have goal or instrument independence. In this context, a more general question is whether it is necessary to form a broad consensus about the appropriate monetary policy stance among not only the central bank and the government, but also the business community the labor organizations, etc, before inflation targeting is implemented.

To start with and as discussed above, it can be noted that the issue of goal versus instrument independence for the central bank varies across the inflation targeting economies (see Section III.A and Table 1). The features of the labor market and various political institutions (such as the degree of trade unionization, wage bargaining system, political ideology of the government, etc.) also vary substantially across the inflation targeting countries, and moreover, it is unclear whether there ever was a general consensus among the various interest groups about monetary policy at the time of the introduction of inflation targeting in these countries. However, despite these differences, the macroeconomic outcomes under inflation targeting seem to be quite similar across the countries that have adopted this framework.

In South Africa, it is interesting to notice that the authorities managed to reduce inflation at a relatively steady pace during the 1990s without any formal or apparent consensus among the various interest groups in the economy. Nevertheless, it is important to emphasize that a formal inflation targeting framework would be more effective when economic policies are well coordinated.¹⁶ If this is not the case, there will be higher short-term output costs of a disinflation process and of adjustments to adverse shocks. Similarly, structural policies will also play an important role in determining the cost associated with achieving and maintaining a lower inflation rate—a flexible labor market will lower the output costs as wage increases would adjust to lower inflation and aggregate shocks, while competitive product markets can help spread the benefits of lower inflation more rapidly.

¹⁶ Other studies have emphasized the importance of this argument in the case of South Africa, and added that an explicit approval of an inflation targeting framework by the Department of Finance would enhance credibility and confidence in the government's overall macroeconomic strategy, see CREFSA (1998) and Casteleijn (1999).

Inflation targeting and the foreign exchange position of the SARB

By international standards, the level of international reserves is quite low in South Africa; at the same time, the SARB has a large outstanding amount of forward foreign exchange liabilities. The SARB has announced its objective of gradually reducing its forward foreign exchange account and increasing its foreign reserves.¹⁷ A natural question is whether these objectives are consistent with the implementation of an inflation targeting framework.

In principle, a gradual reduction of the forward position and/or a buildup of reserves is compatible with inflation targeting. The SARB would, of course, need to assess if, and to what extent, these operations affect variables that are important in the inflation forecasting framework, and then adjust its monetary policy instruments accordingly. In this context, it is interesting to notice that Sweden ran up a forward foreign exchange position of about US\$22 billion during its foreign exchange crisis in the fall of 1992. Despite this, the Riksbank introduced an inflation targeting regime in January 1993, and price stability has been achieved since then; at the same time, the forward position of the Riksbank was virtually eliminated over the course of the next 4 years.

IV. DISCUSSION

This paper suggests that a monetary policy framework based on inflation targeting could improve the current policy framework in South Africa, which can be characterized as “informal inflation targeting”. A formal inflation targeting framework would clarify the monetary policy objectives of the SARB, enhance transparency of its operations, and strengthen the SARB’s accountability. This could contribute to more accurate and coordinated inflation expectations which would help in reducing and stabilizing actual inflation. Inflation targeting could also lead to a better cyclical performance of the economy, and thereby improve the outlook for growth and development. It is important to keep in mind, however, that in practice inflation targeting can be better, similar, or worse than other monetary policy frameworks depending on the specific manner in which the central bank conducts monetary policy.

South Africa satisfies the main pre-requisites for adopting an inflation targeting regime, including an absence of commitments to macroeconomic objectives that might conflict with low inflation, an independent central bank, and relatively developed capital and money markets. However, in the event South Africa decides to move to an inflation targeting framework, some technical issues may need to be addressed, including further experience with the operational aspects of the repo system, and a refinement of the SARB’s inflation forecasting framework.

Moreover, a number of other detailed issues would need to be addressed, including, for example, which measure of inflation to target, and at what initial level and subsequent path.

¹⁷ See South African Reserve Bank (1999a).

These issues are beyond the scope of the current paper, but it can be noted that some inflation targeting countries have specified the inflation target in terms of “headline” CPI, while other countries have established targets based on some form of “underlying” inflation measure (see Table 1). The advantage with headline CPI is that it is usually widely accepted and well publicized, while some disadvantages are that the price index can be quite volatile, and move perversely (in the short-run) in response to monetary policy changes. For example, if mortgage interest charges are included in the CPI measure, a tightening of monetary policy could have the effect of pushing up measured inflation as the higher cost of funds leads to higher mortgage charges. South Africa currently publishes a core inflation measure with the same frequency as headline inflation, which excludes the direct effects of changes in some food prices, interest rates on mortgages, overdrafts and personal loans, and value added tax and municipal rates. This index could be a plausible candidate for an inflation target, although the treatment of changes in, for example, energy prices deserves further analysis.

The initial level of, and subsequent path for, the inflation targets in South Africa would in part depend on the prevailing rate of inflation at the time of the introduction of the new framework. In some countries, where inflation was significantly higher than the ultimate target, a pre-specified timetable of gradual disinflation was adopted.¹⁸ Given that any long-run inflation target for South Africa would likely be inflation in the range of its major trading partners, and that the actual inflation rate in the near future is likely to exceed this, the adoption of a gradual disinflation process seems sensible. The period over which such a disinflation might occur, and the width of any band during such a process, are clearly matters for further consideration.

¹⁸ New Zealand, Canada, and the Czech Republic are examples of countries that adopted a targeted path for inflation that declined over time.

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