

## CHAPTER 8

### CONCLUSIONS

#### 8.1 Introduction

This chapter provides by means of a summary an overview and assessment of the various conclusions reached at the end of each of the chapters of this study and recommends areas for possible further research. This study used as point of departure the view that inflation is associated with the introduction of money into an economy and can take the form of:

- literally debasing the currency, i.e. reducing the metal content of gold or silver coins;
- reducing the value of a currency in terms of another through an adjustment of the exchange rate; or
- increasing liquidity in the economy without a commensurate increase in the production of goods and services for consumption, resulting in a continuous increase in the price level.

The word inflation owes its origin to the Latin word *inflare*, which literally means "to blow into", from *flare*, "to blow". This is an accurate description of the current understanding of inflation: a process of increasing prices. In the consideration of price increases in any economy, consensus should be reached about price increases to be classified as such and the measurement of inflation in terms of a predetermined indicator. The next section reflects on the two hypotheses tested in this study, while the conclusions from this study are discussed in Section 8.3. Recommendations from this study follow in Section 8.4.

#### 8.2 Reflecting on the aims of the study

The main aims of this study were threefold: a historic consideration of inflation since 1921 from a central bank perspective; an analysis of the accuracy of the measurement of inflation over the same period; and the development of a suitable instrument to measure the credibility of inflation figures. The study also covered a selected review of literature on monetary theory and

considered policy frameworks aimed at containing inflation. Although the main focus of the study was South Africa's experience with inflation, international comparisons were used when applicable. A sub-hypothesis and a main hypothesis were tested.

Sub-hypothesis (Hypothesis 1):

The prices of various identifiable consumer goods and services, as well as salaries, increased on average in accordance with the official overall rate of inflation over time.

This hypothesis was tested by comparing the actual price increases of various identifiable consumer goods and services, as well as increases in salaries, with changes in the South African CPI over the period since their identification. The purpose of the comparison was to distinguish between perception and reality by ascertaining whether the prices of goods and services and salaries increased at a slower or faster pace than the CPI.

Main hypothesis (Hypothesis 2):

A suitable instrument can be developed to measure the degree in which the general public accepts the published official inflation figures as an accurate indication of general price increases in the South African economy.

This hypothesis was tested by an analysis of questionnaires completed on the credibility of published inflation figures in terms of an inflation credibility barometer by various groups of respondents. Based on the results obtained from the respondents, inflation credibility barometers were constructed, measuring the degree of acceptance of inflation credibility out of 100. Related to this hypothesis are questions such as:

- the suitability of questionnaires used in various pilot studies for use in representative samples;
- differences in the inflation perceptions of various groups of respondents; and
- the level of understanding of the meaning and measurement of inflation of different groups of respondents.

In terms of testing the sub-hypothesis, the study shows that certain items and services recorded price increases above the rate of inflation, but numerous other items and services reflected much lower price increases, therefore resulting in “average” price increases commensurate with the rate of inflation. The rate of inflation therefore reflects average price increases experienced by an “average” household. Salaries have also kept pace with inflation, confirmed by a comparison of the real, after tax income over time of two positions identified and analysed in detail, although productivity changes or improvements were not taken into consideration. The research accordingly confirms the sub-hypothesis.

The main hypothesis was tested by means of five pilot studies, one broad pilot study and one representative study sampling inflation credibility. The main finding from these studies is that the inflation credibility barometer is a suitable instrument to measure the varying degrees in which the general public accepts the accuracy of the published official inflation figures as an accurate indication of general price increases in the South African economy. Although the research confirms the main hypothesis, a central finding is that knowledge of and information about the calculation of the rate of inflation and what is measured, increase the credibility of the rate of inflation, also in view of the respondents who did not know whether the inflation figures reflected accurately price increases in the economy.

### 8.3 Specific conclusions

The first conclusion is that the sustained application of sound monetary policy enabled developed and some developing countries to contain inflation after an acceleration in the rate of price increases in many countries in the 1960s and 1970s. A commitment to the application of sound policies limits the scope for a political business cycle and time inconsistency problems. The use of sound monetary policy, however, does not appear to have contributed significantly to alleviating the unemployment problems of many countries, with South Africa serving as a case in point. A literature review accordingly shows continued debate between different schools of

economic thought on the best combination of policies to achieve the goals of low inflation and low unemployment.

The problem of inflation in South Africa has occurred in different forms and has occupied the monetary authorities over many years. Inappropriate economic policy, and monetary policy in particular, contributed to conditions conducive to the development and maintenance of inflationary conditions. In containing inflation there is no “one-size-fits-all” solution that could be applied universally, except to state the obvious: countries should not follow unsound policies that will foster inflation. In the period before World War II, the SA Reserve Bank was successful in containing inflation. During and immediately after World War II the SA Reserve Bank was less successful in containing inflation, but regained monetary control by the late 1950s and early 1960s. From 1968 domestic inflation started accelerating and in the ensuing 25 years the SA Reserve Bank seemed incapable of controlling it effectively, although it was contained between 10 per cent and 20 per cent per annum from 1974 to 1992. An *ex post* analysis gives the impression that the SA Reserve Bank followed an inflation target of between 10 and 15 per cent per annum, with monetary tightening whenever inflation breached 15 per cent, and monetary relaxation whenever inflation declined to levels slightly above 10 per cent. This was indeed not the policy approach, but the result of inconsistent policy application. All along the SA Reserve Bank had the tools and knowledge to contain inflation, but lacked the political autonomy to follow consistently policies aimed at achieving this goal. Since 1990 the SA Reserve Bank has again been successful in containing inflation, but unemployment remains at an unacceptably high level.

An explicit anchor or target for monetary policy is preferred as it prevents any time inconsistency problems in the application of policy measures. Despite the merits of a real interest rate target as an anchor, this study prefers the use of inflation targeting for such a purpose. No anchor can be adopted as a costless option to contain inflation, but it seems that the application of a real interest rate target brings more difficulty than an inflation target. An inflation target has the added advantage that it is set by governments for achievement by central banks in the countries using this policy model. This ensures that the government remains committed to the achievement of

the target; particularly if an inflation-targeting regime is supported by institutionalised consultations between the government and the central bank over monitoring the success of the target. International differences in the specification of the CPI used for targeting purposes imply that countries using this policy approach use different inflation targets. Comments on the choice of a single target point, a target point within a range or a target range should accordingly take cognisance of the specification of the inflation rate used for targeting purposes. As no “single best rate” exists, no “single best target” can be advocated.

The second conclusion is that communication strategies to increase awareness of the calculation of the rate of inflation and its measurement should be a continued initiative of central banks following an inflation-targeting monetary policy. The importance of communication supporting the containment of inflation should never be underestimated, particularly because no standard international benchmarks for successful central bank communication have as yet been developed. The lack of knowledge about the actual inflation rate and its reflection as an accurate indicator of price increases in South Africa confirm the importance of a communication strategy.

The third conclusion is that the methodology and results of the measurement of inflation differ considerably between countries. Inflation rates cannot be compared internationally without the necessary circumspection and should not be equated to a cost-of-living index without the necessary adjustments. Consumption baskets used for the calculation of inflation are “fictitious” in as much as they provide for purchasing preferences of an “average” household, which cannot exist. Countries do not use a standardised application of international benchmarks in the calculation of inflation rates. Closer adherence to such a benchmark will harmonise the calculation of inflation rates between countries and support economic development by leveling the playing field between developed and developing countries in their quest for international investment.

Fourthly, a distinction should be made between anticipated inflation and unanticipated inflation. While the economic costs of anticipated inflation depend on the rate of inflation, the main consequences of unanticipated inflation are a redistribution of income and wealth; distortions in

the relative prices of goods and of services; distortions in output and employment; and unforeseen adjustments in relative wages and salaries. As inflation is in reality often unanticipated, hence leading to unforeseen costs in an economy, this study recommends relative price stability as the goal for monetary policy.

Fifthly, difficulties experienced in measuring inflation can result in the overstating, rather than the understating, of price changes in an economy. In an effort to overcome these difficulties, different statistical methods to calculate price indices have been developed, the use of which will result in differences in the measurement of price changes over time. Regular revisions of the index used for measuring price levels are required to ensure that it continues to reflect average spending patterns of consumers. Any statistical errors in the calculation of the rate of inflation should be subject to public scrutiny when rectified.

An IAI was calculated for South Africa, based on the data collected for this paper. Despite its shortcomings, it can be used to enhance inflation credibility, particularly because it is easy to understand. It can also be used to reconfirm inflation accuracy over time. Although the IAI might require modifications, its ease of calculation makes it a particularly useful instrument for developing countries.

No systematic over-reporting or under-reporting of changes in South African prices in terms of changes in the CPI as measured by an IAI could be detected over any of the periods used for comparative purposes. As should be expected with adjustments reflecting average price increases, the projected prices of some goods and services were lower than actual prices, while the actual prices of other goods and services exceeded projected prices. Based on this analysis, no general grounds for a low credibility of inflation figures as an accurate indication of price increases in the South African economy could be found, but individual spending patterns result in differences in the credibility of inflation figures.

This is evident by increasing food prices in South Africa, particularly as the food component of the CPI basket of low-income earners is much larger than that of high-income earners or the

average CPI. Food prices increasing faster than other prices might be the basis on which low-income earners attach less credibility to inflation figures than high-income earners. As the spending pattern of housewives correspond to a larger degree to the spending patterns of low-income earners than with the average inflation rate, this finding might indicate that the credibility of inflation might be lower among housewives than among the population in general.

Salaries and remuneration of positions identified for comparative purposes did not decline in real terms, albeit after taking into consideration the effect of reductions in direct taxation in a detailed analysis. The affordability of two big-ticket spending items of households (motor vehicles and housing) improved over the period under consideration.

Changes in relative prices and remuneration can be disguised by prolonged inflation, in as much as relative price changes are not immediately obvious under such conditions. A historic price analysis is necessary to reveal relative price changes and to ensure efficient allocation under conditions of sustained inflation. It is a precondition for the efficient functioning of a market economy that producers and consumers should be able to identify changes in the relative prices of goods and services over time.

The sixth conclusion is that an inflation credibility barometer delivers better results in the measurement of inflation credibility than the international approaches to measure inflation perceptions analysed in this study as it (i) records the degree of acceptance of the accuracy of current inflation data; (ii) highlights any change in the degree of such acceptance over time at each occasion of measurement; (iii) can easily be communicated to the general public; and (iv) provides a measurement of inflation credibility that can be compared internationally between countries.

A questionnaire measuring the credibility of inflation figures should provide respondents with the opportunity to answer that they are unsure (i.e. *don't know*) about the accuracy of the inflation figures. If respondents are not provided with such an opportunity, their responses seem to be that they do not believe the figures, hence over-reporting the negative responses with a concomitant

undermeasurement in terms of the inflation credibility barometer. The questionnaire should also provide for the disaggregated reporting of sampling results by gender, by population group and by income group, as statistically significant differences were recorded between these groups in the credibility of inflation figures. Such differentiation will help to target accurately communication campaigns aimed at enhancing credibility.

The last conclusion is that the use of an IAI and an inflation credibility barometer by developing economies, and particularly by SADC countries aiming at an inflation convergence goal, will provide the relevant authorities with additional instruments to monitor whether progress with achieving lower inflation is indeed perceived as such by the general public. With an inflation convergence goal in mind, SADC countries should harmonise the techniques used in the measurement of inflation in the different countries, thereby enhancing at a regional level the credibility of inflation rates.

#### 8.4 Recommendations

The first recommendation pertains to communication about monetary policy in general and inflation in particular. This study has revealed a lack of knowledge about inflation that can only be bridged by means of communication. The need to improve communication is particularly relevant for central banks using an inflation target as a nominal anchor for monetary policy. The successes of such a policy framework will only be recognised and supported by the public to the extent that they believe in the achievement of the goal of low inflation.

To this end a standard international benchmark for successful central bank communication should be developed. In the interest of easier communication with the general public on the objectives of monetary policy, central bankers should agree on:

- the standardised use of *relative price stability* rather than *price stability* in describing the objectives and achievements of monetary policy, as the latter has different meanings for different people; and
- a standardised definition or description for *relative price stability*.



The second recommendation is that countries should follow more closely the methodology in the *ILO manual* (International Labour Organization, 2004) to compile their consumer price indices and measure inflation, particularly in respect of owner-occupied housing. This will increase the comparability of inflation rates between countries and can serve as a basis for communication campaigns aimed at increasing the credibility of the inflation rate.

The third recommendation is the establishment of a forum between governments and central banks for consideration of macroeconomic policy choices and implementation (as is currently in existence in South Africa) in those countries where such fora are not in place. It will enhance co-ordination in the implementation of policies conducive to sustained low inflation.

The fourth recommendation is that countries using inflation targets should consider measuring the credibility of inflation by means of an inflation credibility barometer serving as an early indication of any possible delinking of inflation expectations from the current rate of inflation. In this regard a specific recommendation is that South Africa's inflation expectations survey should be expanded to:

- include an inflation credibility survey with the aim of constructing and reporting an inflation credibility barometer; and
- provide for a separation in the reporting of the inflation expectations of the different genders; of Asians, Blacks, Coloureds and Whites; and of different income groups; thereby aligning it with the inflation credibility barometer.

The fifth recommendation is that developing countries should endeavour to ensure that their rates of inflation remain an accurate indicator of price increases. Inaccurate measurement of inflation may result in the adoption of inappropriate macroeconomic and monetary policies. Developing countries accordingly stand to gain from initiatives to standardise the measurement and international comparison of inflation. To this end the importance of reliable economic data in general and, for purposes of this study, inflation data in particular, cannot be overemphasised. Developing countries can use an IAI, similar to the one calculated for South Africa, to enhance

inflation credibility. Its use is recommended particularly because it is easy to understand and can serve as a benchmark over time for countries calculating it periodically.

The sixth recommendation is that what might be discrepancies reported in South Africa between the sampling responses in respect of the inflation credibility barometer and the responses in respect of perceptions on how well government is controlling inflation, should be assessed in more detail in future research. Any possible discrepancies between the responses in these two samples should be clarified in such research.

The remaining question for debate in the case of South Africa is whether the use of CPIX for purposes of inflation targeting is appropriate in view of the challenge to enhance the communication required to inform the general public about the true meaning and measurement of inflation, aimed at anchoring inflation expectations. An alternative, i.e. CPIXX (defined as changes in the CPI excluding interest costs), rather than CPIX, should be considered for use as an inflation target specification, owing to its less cumbersome definition; exclusion of all interest costs; coverage of the whole (i.e. inclusive of rural areas) country; and relative ease of communication.