INSTRUMENTS OF STABILIZATION POLICY

AND THEIR APPLICATION IN

SOUTH AFRICA BETWEEN

1960 AND 1972.

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The inadequacies of this thesis naturally remain the sole responsibility of the author.

CONTENTS.

CHAPTER 1.

INTRODUCTION.

The objectives of stabilization policy are widely accepted: firstly to maintain a high rate of utilization of resources, secondly to preserve a reasonably stable price level, or, more realistically nowadays, to maintain a low rate of inflation, and finally to accomplish the first two goals with the maintenance of a viable balance of payments position. The indicators of success of stabilization policy are then, obviously, the unemployment rate and the level of unutilised capacity, the consumer and wholesale indices, and the level of gold and foreign exchange reserves. A topic of much concern is the extent to which the fluctuations in these three series can be attributed to measures implemented by the authorities responsible for stabilization policy. The subject matter of this dissertation stems from this concern. This dissertation, however, does not attempt to derive some overall quantitative impact of stabilization policies, but rather sets out to highlight problems with the policy instruments in particular with respect to their lag structures, uncertainty as to their impacts and the duration of the impact, and their side-effects. From this and recent theoretical develpments, and having noted the manner in which stabilization policies were pursued in South Africa, proposals regarding the improved conduct of stabilization policies are tentatively put forward in the concluding chapter.

Control of the money supply has fairly recently been re-elevated to a position of importance in the view of many economists for its potential role as an anti-inflationary measure. As will be indicated, the South African authorities have tended to focus attention on the level of interest rates as an indicator

of monetary policy rather than on the money supply. To explain the academic backing to this priority a discussion of the recent 'money matters' debate is pursued in Chapter 11.

Recently, attention has been focused on the impracticability of attempting to control the money supply under a fixed exchange rate system. It has been argued that under a fixed exchange rate system the rate of inflation is determined by the world rate of inflation and is not, primarily, determined by endogenous factors. These theoretical developments, centering attention on the demand for money, have been traced in Chapter 111. It is suggested that the policy prescription following from these arguments is that nations should embark on a system of flexible exchange rates so that each country might immunise itself against the affects of price instability in other countries, and that such a policy would permit control of the money supply. The view that exchange rate adjustments, import controls, export subsidies and the like are no more than instruments which are 'transitorily' appropriate in correcting balance of payments disequilibria, is also discussed. This view serves to highlight the difficulties of pursuing a 'discretionary' stabilization policy in that so little is known in practice about the short-term adjustment processes to any disequilibrium. The policy pursued to correct imbalances in the short-run may indeed prolong the attainment of the desired steady state of the economy.

Chapter 1V begins by tracing the authorities' concern for the level of interest rates since 1953, followed by their justification for the attention given to interest rates, and the manner in which the authorities influence interest rates. It is then established that the monetary authorities lose their power to control the level of domestic credit creation through the priority attached to interest rates. The rest of the chapter is devoted to the discussion of monetary instruments employed in South Africa. These instruments, together

with fiscal measures, are reviewed primarily with regard to their suitability as anti-inflationary measures, since the major problem during the sixties and early seventies has been the control of inflation. Implicit in the discussion of monetary control are criticisms of monetary policy. For example, it is considered that the harshness of the impact of hire-purchase restrictions on certain narrow sectors of the economy probably has outweighed the advantage of the reduction in aggregate demand that occurred. Included under the discussion of monetary instruments are comments concerning the impact of different methods of financing Government expenditure on monetary policy. It is also noted that there has been no apparent anti-cyclical debt management policy.

In the discussion of instruments of stabilization policy, greater emphasis has been given to instruments of monetary policy, not so much because of their generally shorter inside lag, but because it is increasingly recognised that money will play a crucial role in the control of inflation. Thus the importance of fiscal policy in stabilization operations stems, to a large extent, from the impact of such policy on the monetary system, in particular on the level of domestic credit creation.

Under fiscal instruments (Chapter V), Government expenditure is dealt with in the aggregate. It will be shown that stabilization policy has not relied to any significant extent on short-run variations in Government expenditure. Bearing in mind the difficulties involved in slowing down the rate of increase of Government expenditure, this is hardly surprising. The taxes discussed are those that have been utilised as short-term stabilization measures and those changed to strengthen anti-cyclical forces. The fundamental point made is that as so little is known about the impact of these changes, as indeed with changed monetary policy settings, that the budget should be geared to achieving structural changes in the longer-term rather than be devoted to implausible attempts to fine-tune the economy.

A brief look is given at building controls which are notable for their complete lack of sophistication as a stabilizing device. Finally the negative impacts of selective price controls are covered. Income policies are not discussed as they have not yet been applied in South Africa. The possibility of a general price and incomes policy in South Africa was discounted by the Minister of Economic Affairs in 1973. In any event, evidence from the United States and the United Kingdom suggests that the associated side-effects of such a policy, for example, in the form of industrial disputes, create an unacceptable trade-off between policy objectives.

As one of the major objectives of this work was a brief review of the application of stabilization policies in South Africa between 1960 and 1972, Chapter VI deals with the difficulties in pursuing a successful stabilization policy. This chapter was felt necessary to ensure that, even with the advantage of hind-sight, the review of policies, will not seem unnecessarily harsh and unsympathetic to the difficulties faced by the stabilization authorities. The factors highlighted are, in the first instance, the presence of multiple objectives, with trade-offs involved, which the authorities are obliged to reconcile. Secondly, the complexity of the problem is discussed and a possible explanation of the co-existence of inflation and unemployment is presented. The third factor stems from the second and is the lack of agreement amongst economists as to the manner in which the authorities ought to intervene in affecting the normal economic forces of supply and demand. No total agreement has been reached on whether the authorities ought to embark on 'sensible steering' or 'fine-tuning', as opposed to policy settings operated by guidelines. If it is decided to use discretionary changes in policy settings, the necessity for both long-term and short-term accurate forecasts is paramount. The difficulties involved in economic forecasting are well known.

Chapter VII divides the economic cycle into phases as established by Messrs. D.J. Smit and B.E. van der Walt (1). The actual turning points were derived by a weighted average of turning points of varied indicators of economic activity, and, as such, their accuracy may be questioned. Nevertheless, the phases were useful to break down the discussion of economic circumstances and policies followed into manageable portions. After each phase brief observations are intended to supplement what has been covered in earlier chapters. The observations are restricted to the extent to which policies were mutually consistent; the appropriateness of the direction of change in the policy setting; the extent to which the authorities achieved what they set out to achieve; and general comments as to the timing of the policy changes. The evaluation of policy is made all the more difficult in that the people who control the policy variables also assess the impact of the policies pursued. They are, therefore, unlikely to explain a lack of improvement in the economy following policy changes as being due to incorrect policies, but rather to factors beyond their control impeding the operation of the policy. Furthermore, there is no acknowledged official forecast against which policy performance may be compared.

The concluding chapter develops proposals for the improved operation of stabilization policies implied by the discussion in previous chapters.

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(1) Smit, D.J. and Van der Walt, B.E. "Business Cycles in South Africa during the Post-War Period, 1946 to 1968" and "Business Cycles in South Africa during the Period 1968 to 1972." SARB Quarterly Bulletins Nos 97 and 108, September, 1970 and June, 1973 respectively.

CHAPTER 11.

THE IMPORTANCE OF MONEY.

"The problem of understanding inflation is analytically a problem of explaining the declining value of money. The value of money is determined by demand and supply and it falls when the supply exceeds demand. The cause of inflation is therefore an increase in supply of money relative to the demand for it. It can be caused by a fall in demand with a given supply or an increase in supply relative to a given demand." (1)

INTRODUCTION.

Whilst this work was being written, a major conclusion reached by the Economics profession on the post-war record of anti-inflationary policies was that the authorities had not paid sufficient attention to the rate of growth of the monetary aggregages. The authorities' inability to control the money supply stemmed from the priority attached to the maintenance of preferred levels of interest rates.

In some of the most recent literature (2), however, it has been argued that it is only under a regime of flexible exchange rates that the authorities could succeed in controlling the money supply. (These latest developments in the monetary theory of the balance of payments are considered in Chapter 111.)

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(1) Mundell, R.A. in a World Inflation Panel Discussion printed in Claasen, E. and Sales, P. "Stabilization Policies in Independent Economics." (North-Holland Publishing Company, Amsterdam, 1972.) p 323.

(2) See, for example, Johnson, H.G. "Major Issues in Monetary Economics." A paper presented at Merton College, Oxford where a conference of the Money Study Group was held in September, 1973.

The debate concerning the importance of money has been traced by contrasting the views of monetarists Professor Friedman and Mrs Schwartz, one of his distinguished collaborators, and those of Professor Kaldor and Dr Cramp whose views largely summarise the thoughts of the so-called Keynesian economists who are opposed to elevating control of the money supply to the stabilization instrument.

A quote from Mrs Schwartz summarises the essence of the monetarists' findings concerning the relation between economic activity and money:

> "... cyclical studies indicate that changes in the monetary growth rate are a necessary and sufficient condition for changes in the growth of income over periods covering the different phases of the business cycle. Short-term changes in monetary growth appear to have a major impact on changes in output and only a mild impact on changes in prices. ... Longer-period changes in money incomes produced by a secular rate of monetary growth are reflected mainly in different price behaviour rather than in different rates of growth of output." (3)

The monetarists have as yet not formulated a way of determining the division of national income, resulting from altered monetary growth rates, into a change in prices and a change in output.

The publication of these findings with their concomitant policy prescription has evoked heated debate from those who would seem to support the Radcliffe view that it is the general liquidity of the economy, rather than the money stock, which exerts the financial influence on the level of demand, and that the money supply should be engineered to yield an appropriate pattern of interest rates.

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(3) Schwartz, A.J. "Why Money Matters." Lloyds Bank Review October, 1969 No 94 p 7.

The essence of the controversy would seem to revolve around the linkages between the money supply and the level of economic activity. The bare essentials of the monetarists' approach would be that they envisage a strong, probably lagged, influence running predominantly from money to aggregate demand. They would achieve control of the money supply through control of the high-powered money of the system which may be defined as the reserves of the banking sector held at the central bank plus currency in circulation. The crux of the Kaldor/Crampian view is that essentially the money supply is endogenous. That is, the money supply increases with increases in income rather than income rising with increases in the money supply. Put simply, Y $\longrightarrow$ demand for money $\longrightarrow$ supply of money (4) i.e. the money stock rather responds to the level of economic activity. Or that once determined, the money supply influences income via changes in investment expenditure induced by changes in interest rates that follow from the change in money supply. And this chain of influence is only as strong as its weakest link.

Each of these two views is examined in more detail below.

THE MONETARISTS' VIEW.

Friedman and Schwartz (5) summarize the results of their monumental study of the monetary history of the United States as follows:

(i) Changes in the behaviour of the money stock have been closely associated with changes in economic activity, money income and prices.

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(4) It is most interesting to compare this view with the hypothesis (presented in the following chapter) that the demand for money is not residually determined, but exists, and is satisfied either through a change in the level of reserves or domestic credit. Thus the monetary authorities cannot control the supply of money under fixed exchange rates only the level of domestic credit creation.

(5) Friedman, M. and Schwartz, A.J. "A Monetary History of the United States 1867 - 1960." (Princeton University Press, 1963.) p 676.

supplied, through these three sectors. He hypothesised that the more these factors reflected changes in economic activity, the less emphasis could be placed on the money stock as a sound predictor of economic activity or as a major potential stabilization instrument in the hands of the authorities. That is, should the major influence be running from business to money, then the correlation between what has been called the 'proximate determinants' of the money supply, namely high-powered money, the deposit-currency and deposit-reserve ratios, and income should be higher than the correlation between the money stock and the level of economic activity.

It is appropriate to digress briefly to establish the relationship between the proximate determinants and the money supply as these concepts will arise frequently in later work. High-powered money comprises bank reserves plus currency held by the public and, as such, forms the base for the multiple quantity of bank deposits. The government, acting most often through the central bank, controls the issue of liabilities that serve as high-powered money, the public and the banks jointly determine its division into reserves and currency held outside the banking systems. If more deposits are created by the banking systems through the extension of investments, loans and advances than the public wishes to hold, the bank will lose reserves as the public adjusts its distribution of money balances between deposits and currency in favour of the latter. Adjustments of reserves will thus occur until the quantity of deposits manufactured is consistent with the desired deposit-currency ratio of the public.

Both the banking system and the public can increase or decrease the money stock by altering their deposit-reserves and deposit-currency ratios respectively. The exact relationship between the amount of money supplied and the behaviour of the three sectors is expressed by Cagan as a simple identity. He denotes

high-powered money, which reflects the behaviour of the government sector, by H. The public affects the distribution of high-powered money between itself and banks by changing the ratio of currency outside commercial banks to the total money stock. This is denoted by C/M, where M = C + D i.e. the money stock equals the sum of currency and banking sector deposits. And finally he denotes the aggregate deposit-reserve ratio R/D, which reflects the behaviour of the banking sector, to see the net effect of the banking system on the money stock. R is that part of high-powered money not publicly held. Therefore, H = C + R from which the following identity can be derived:

$$\frac{H}{M} = \frac{C}{M} + \frac{R}{M}$$

And substituting R/M for (R/D) (1 - C/M)

$$\frac{H}{M} = \frac{C}{M} + \frac{R}{D} - \frac{C}{M}\frac{R}{D}$$

or

$$M = \frac{H}{\frac{C}{M} + \frac{R}{D} - \frac{C}{M}\frac{R}{D}}$$

To return to the question of whether or not money is a senior partner, Cagan found that for secular movements there exists a closer relationship between income and changes in the total money stock than between income and the separate determinants. But when he went on to examine cyclical fluctuations the evidence was more mixed. As regards severe business contractions the evidence was clearest: the influence runs from money to income. For cycles without severe downswings, there is strong evidence of the influence of business on money operating through its determinants. But even in thses mild cycles there is still evidence of the influence of money on business, as the relationship between money and business has remained the same during these cycles despite

the changes in the institutional structure connecting business and the separate determinants.

A third factor adding weight to the confidence with which Friedman and his followers promoted the fact that money matters was provided by the cyclical timing of monetary changes. In graphing the rate of change of the money stock and the rate of change of the index of industrial production, a surrogate of economic activity which is likely to reflect more sensitively the variations in activity rather than the larger GDE, one can easily read into the graph leads of the money series which suggest a one-way influence from money to business. As Friedman readily acknowledged this 'evidence' is by no means decisive as:

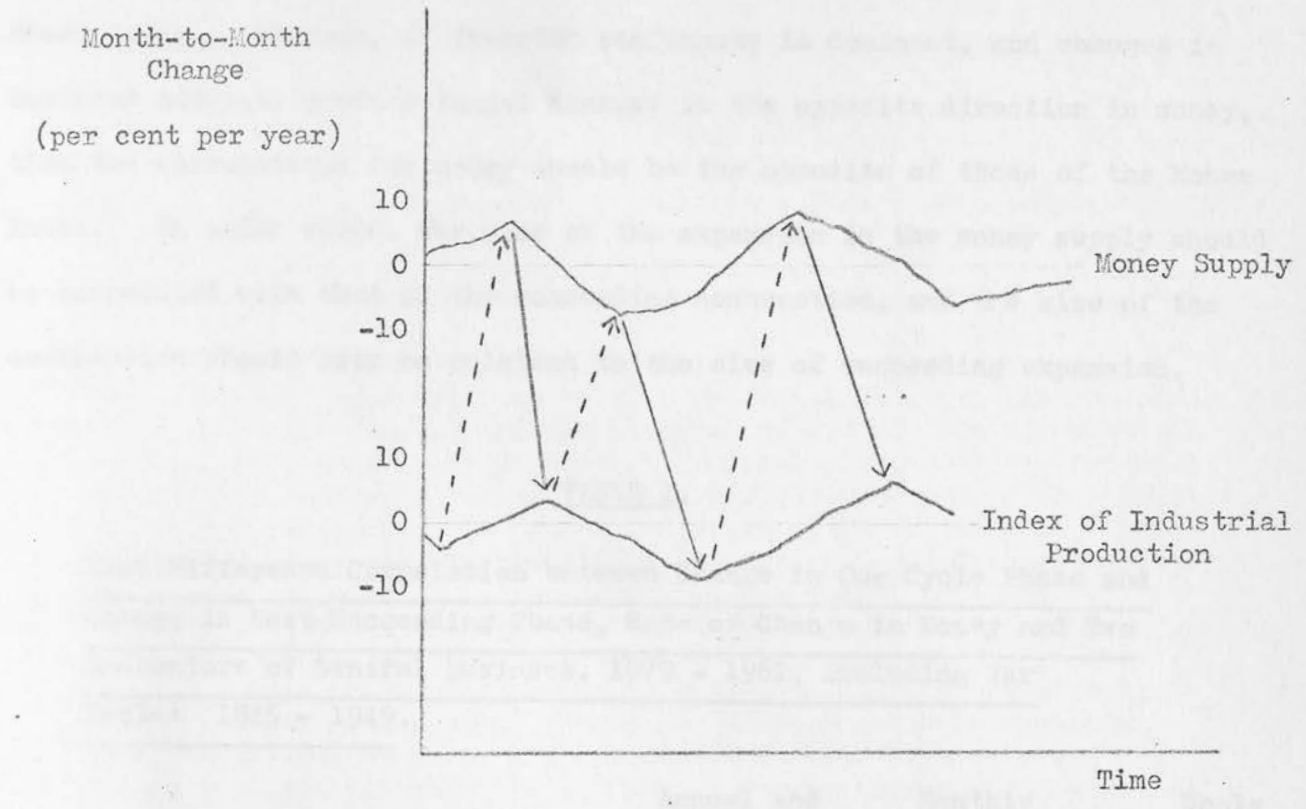
(i) both business and the money supply might be affected by some third factor which influences money earlier than it does income;

(ii) should the influence be from business to money, the reference dates for the business cycle may not coincide with the change in that characteristic of business activity which affects the money stock;

(iii) there could be a mis-matching of turning-points i.e. instead of matching a peak in the money series with the subsequent reference peak, it could be matched with the prior reference trough in the business cycle.

The question of whether the major influence runs from money to business or vice versa revolves around establishing whether it is preferable to interpret the money series as mainly 'conforming positively' to the business cycle with a lead or invertedly with a lag.

Graphs from hypothetical time series data illustrate the problems of identifying positive and inverted conformity.



If the major influence is as the solid arrows indicate i.e. from money to business, then the money series may be said to conform positively with a lead to the business cycle - to use Friedman's terminology. If, however, the major influence were as the broken arrows indicate the money series must be interpreted as conforming invertedly with a lag.

Friedman, therefore, looked at each interpretation to see which yielded the more consistent timing measures. In other words, which interpretation gave leads or lags more nearly the same from cycle to cycle. His calculations showed that positive conformity yielded a lower standard deviation of the leads and lags.

Further evidence on positive versus inverted conformity is provided by the size of cyclical movements in money. For, as Friedman explains, if positive conformity is dominant and if monetary changes influence physical-volume changes, then the serial correlations for money should be the same as for the

Moore index. Whereas, if inverted conformity is dominant, and changes in business activity produce lagged changes in the opposite direction in money, then the correlations for money should be the opposite of those of the Moore index. In other words, the size of the expansion in the money supply should be correlated with that of the succeeding contraction, and the size of the contraction should bear no relation to the size of succeeding expansion.

TABLE 1.

Rank Difference Correlation between Change in One Cycle Phase and Change in Next Succeeding Phase, Rate of Change in Money and Two Indicators of General Business, 1879 - 1961, Excluding War Cycles 1945 - 1949.

Series correlated with itself.	Annual and semi-annual data. 1879 - 1908	Monthly data. 1908 - 1961	Whole period. 1879 - 1961
Expansion in indicated series and succeeding contractions in same series.			
1. Rate of change in money stock, per cent per month in specific cycles.	-.02	.33	.24
2. Moore index, in specific cycle relatives (indicator of physical change in general business).	-.07	.10	.10
3. Clearings-debits, in reference cycle relatives (indicator of dollar-value change in general business).	-.05	-.39	.15
Number of pairs	8	10	18
Contraction in indicated series and succeeding expansion in same series.			
4. Rate of change in money stock, per cent per month in specific cycles.	.83	.68	.74
5. Moore index, in specific cycle relatives.	.71	.85	.86
6. Clearings-debits, in reference cycle relatives.	-.17	.46	.26
Number of pairs	8	7	15

Source of TABLE 1: Friedman, M. "The Monetary Studies of the National Bureau." op cit p 12.

The relevant correlations are given in the table above, the correlations for money being approximately the same as for the Moore index.

> "The simplest interpretation of this result is that the pattern for business is a reflection of the pattern for money. In terms of our analogy, (the analogy drawn related cyclical changes in the physical volume of output to an elastic string glued to the underside of a board, and plucked out at random intervals with a force that varied at random) every now and then the money string is plucked downward. That produces, after some lag, a downward movement in economic activity related in magnitude to the downward movement in money. The money string rebounds, and that in turn produces, after some lag, an upward movement in economic activity, again related to the upward movement in money. Since the downwards and subsequent upward movements in money are correlated in amplitude with one another, so are downward and subsequent upward movements in economic activity. Since the upward and subsequent downward movements in money are not correlated in amplitude, neither are the upward and subsequent downward movements in economic activity." (9)

Friedman finds this evidence in favour of positive conformity persuasive on two accounts: in the first instance, he could establish no satisfactory explanation for the observed asymmetric correlation if business activity were the so-called senior partner; secondly, he has come across many situations in economic history that correspond with the above notion of the downward plucking of the monetary string.

It is suggested, however, that two factors should be borne in mind in viewing this evidence. Firstly, the evidence would seem to hinge on the assumption of the response of money to business activity as being lagged and in the opposite direction; and secondly the evidence would appear inconclusive if one related the relevant correlations between the rate of change in the money stock with clearings-debits (an indicator of the dollar-value change in general business).

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(9) Friedman, M. "The Monetary Studies of the National Bureau." op cit p 15.

The final source of support towards Friedman's hypothesis that the major influence runs from money to business activity stems from evidence of a similar nature from other countries' data.

Following this evidence, the monetarists, confident in their ability to control the supply of money and that they are dealing with a stable demand for money (see below), strongly advocate greater concern for the size or rate of change of some monetary aggregate. Friedman's famous prescription for monetary policy is adopting a policy of ensuring a specified rate of increase for a chosen monetary total.

> "steady monetary growth would provide a monetary climate favourable to the effective operation of those basic forces of enterprise, ingenuity, inventions, hard work, and thrift that are the true springs of economic growth. That is the most that we can ask from monetary policy at our present state of knowledge." (10)

EMPIRICAL WORK DONE IN THE UNITED KINGDOM.

The discussion will now turn to some research, of a similar nature to that discussed above, undertaken for the United Kingdom by Professor Walters (11). He defined money as the sterling deposits of the banking system (Bank of England deposits - excluding bankers' deposits - and the deposits of commercial and savings banks), and Bank of England notes and coins in circulation. Deposits on 'deposit account' were included as Walters felt that many firms and people keep only a nominal amount in their current accounts and transfer balances to it from their deposit accounts as the need arises. The results of his regression analyses are given below. (The standard error of the estimate of the coefficient is given in parentheses below the coefficient.)

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(10) Friedman, M. "The Role of Monetary Policy." Reprinted in "Monetary Economics: Readings on Current Issues." op cit p 179.

(11) Walters, A.A. "Money in Boom and Slump." (The Institute of Economic Affairs, London, 1969.)

1880 - 1913

$$\Delta \log Y(t) = \underset{(0,005)}{0,0042} + \underset{(0,28)}{0,43}\,\Delta \log M(t) + \underset{(0,28)}{0,45}\,\Delta \log M(t-1) - \underset{(0,22)}{0,132}\,\Delta \log M(t-2)$$

$$\bar{R}^2 = 0,29$$

1922 - 1938

$$\Delta \log Y = -0,0021 + \underset{(0,41)}{0,79}\,\Delta \log M(t) + \underset{(0,45)}{0,59}\,\Delta \log M(t-1) - \underset{(0,31)}{0,39}\,\Delta \log M(t-2$$

$$\bar{R}^2 = 0,52$$

1955 (111) - 1962(1V) (quarterly data)

$$\Delta \log Y = 0,017 - 0,30\,\Delta \log M(t) + 0,49\,\Delta \log M(t-1) - 0,88\,\Delta \log M(t-2)$$

$$\bar{R}^2 = 0,07$$

The coefficient determination, $\bar{R}^2$, in the first but particularly the last equation is disappointing if one is hoping, in this simple way, to establish a case that money might matter. It should be noted, however, that he was trying to explain changes in income. One would thus expect the $\bar{R}^2$ to be lower than when dealing with undifferenced values as differences do not include any dominant trend. It should also be noted that in dealing with differences, the variables have proportionately a larger element of error of observation than the undifferenced series. Furthermore, it should be borne in mind that the older the data the less likely it is to be accurate.

Interpreting the above equations we note that prior to 1914 a 1 per cent increase in the stock of money led to a 0,43 per cent increase in money incomes in that current year and to a 0,45 per cent rise in the following year. The other coefficients may be interpreted in a similar manner. Thus the first two

equations do indicate support for the proposition that money does matter, assuming the direction of causation was from money to income. The last equation, however, indicates that only about 7 per cent of the variation in income changes is explained by money. (This result is reinforced below.)

Walters and a compatriot C.R. Barrett conducted an analysis similar to the one above to try to establish whether money or autonomous expenditure best explained the variation in consumption expenditure. Their results are summarised below:

1878 - 1938

$$\Delta \log C = -0,0047 + \underset{(0,116)}{0,838}\ \Delta \log M + \underset{(0,041)}{0,087}\ \Delta \log A$$

Partial Correlations $r^2 = 0,484$ $r^2 = 0,076$

$\bar{R}^2 = 0,54$

1878 - 1914

$$\Delta \log C = 0,003 + \underset{(0,088)}{0,576}\ \Delta \log M + \underset{(0,031)}{0,087}\ \Delta \log A$$

Partial Correlations $r^2 = 0,564$ $r^2 = 0,197$

1921 - 1938

$$\Delta \log C = -0,0027 + \underset{(0,133)}{0,250}\ \Delta \log M + \underset{(0,038)}{0,194}\ \Delta \log A$$

Partial Correlations $r^2 = 0,202$ $r^2 = 0,650$

Walters summarises the results as follows: "... for the whole period up until 1938 money is the most efficient independent variable - and this is also the case for the years before the Great War. The inter-war years were

Strongly Keynesian, whereas the post-war years could not be even faintly explained by either model." (12)

He then went on to examine situations in which monetary and budgetary policy were pulling in opposite directions in Britain, namely 1955/56 and 1967/68. In both these periods it would seem that the monetary influences triumphed over the forces set in motion by budgetary action. He concludes his paper with the view that some control over the supply of money is essential.

Walters and Barrett found that neither money nor autonomous expenditure would be useful as a predictor of economic activity for the post-war period (13). Cramp, who described Walters as a "skilled econometrician with faith in the monetarist approach", compared this result with Schwartz's conclusions and diagrams - she had summarised her findings as follows:

> "Study of the data for the United States has revealed that monetary influences operate in subtle ways and with long lags, but with highly regular and understandable patterns. There is no reason to believe that British monetary experience is an exception to this conclusion." (14)

Cramp attributes her result to the averaging of the data for money/income/prices over the period of years constituting each upswing/downswing and thus simply illustrated that the trend movements in output and prices have been paralleled quite clearly by the trend movements in the money supply. Given Cramp's view on the direction of causation between money and income, this result is hardly surprising.

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(12) Walters, A.A. op cit p 41.

(13) If money had been a good predictor of economic activity, according to the simple regression analysis undertaken, the implication for policy would not have been obvious as, during the post-war period, the level of domestic credit creation in the U.K. was endogenously determined. That is, up until the early seventies the monetary authorities sought to achieve a certain structure of interest rates through their intervention in the interplay of market forces.

(14) Schwartz, A.J. op cit p 16.

EVIDENCE IN SOUTH AFRICA.

An attempt was made to establish some indication of the impact that money had on economic activity in South Africa, assuming the direction of causation had been from money to income. Use was made of the BMD 02R programme (15) - a stepwise regression process which systematically introduces the independent variables according to their explanatory power. In this programme the F-level for inclusion/deletion was fixed at 2,500 as the programme did not allow computation of various F-values at different steps (16). This would give a confidence level of between 90 - 98 per cent. The equations entered had 8 independent variables but, as will be seen, only the money supply two quarters back explained enough of the variation in the dependent variable to be included.

Use was made of a distributed lag model of the form

$$Y(t) = b_o + b_1 x(t) + b_2 x(t-1) + \ldots + b_8 x(t-7) + u(t)$$

Provided one is willing to 'cut off' the process at some stage, classical least squares may be used i.e. ordinary regression. If this procedure is used, one should be aware of the following (17):

(i) The classical assumptions must be made i.e.

$E(e(t)^2) = 0^2 \ \forall t$

$E(e(s)e(t)) = 0$ for all $s \neq t$.

x and e are independent.

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(15) Obtained from the Biomedical Computer Programs edited by Dixon, W.J. (University of California Press, 1971.)

(16) The F-values would change as the degrees of freedom changed, and the dof would change with the number of variables included in the equation.

(17) See Golberger, A.S. "Economic Theory." (John Wiley & Sons, New York, 1964.) chapters 4,5 and 6.

(ii) Since the sample will be finite in size the infinite set of lagged regressors must be cut off at some point; even then there is likely to be multicollinearity among the successive regressors.

Furthermore, if classical least squares regression is used one should check for autocorrelation. In addition, the X'X matrix and its inverse $(X'X)^{-1}$ should be carefully examined for any abnormally large elements.

The data for the independent variables to build up the equations were quarterly deseasonalised money supply figures (18). The data was deseasonalised as much time series work cannot be carried out without serious error in the absence of appropriate seasonal adjustments (19). The series ran from the 2nd quarter 1965 up to the 1st quarter 1973. It was not possible to form a consistent money supply series prior to this date. The dependent variable used was the deseasonalised index for retail sales. This series was used as an indicator of the level of economic activity as it was felt that it responded more sensitively to changes in the level of economic activity than did figures for quarterly GDP, which are available correct to the nearest one hundred million rand.

The programme was run with undifferenced quarterly data but the error terms indicated the presence of autocorrelation. The programme was re-run using first differences of the data to remove the autocorrelation in the data.

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(18) Money was defined as coin and bank notes in circulation outside the banking sector, and demand deposits with the Reserve Bank, commercial banks, the discount houses, and other monetary banking institutions (excluding foreign deposits and Government deposits).

(19) The monthly money supply figures were deseasonalised using the ratio to moving averages method to obtain a seasonal index. This series, plus the seasonal index, is tabled in the appendix to this chapter.

The results obtained were:

$$\Delta Y = 8{,}67 + \underset{(0{,}01)}{0{,}02}\ \Delta X(t-2)$$

$R^2 = 0{,}10$ Durbin-Watson "d" statistic (20) 1,79

Thus changes in the money supply two quarters back was the only variable of the eight independent variables entered, and judging by the coefficient of determination the equation would be a poor indicator of changes in retail sales. The graphs given on the following page reinforce this interpretation.

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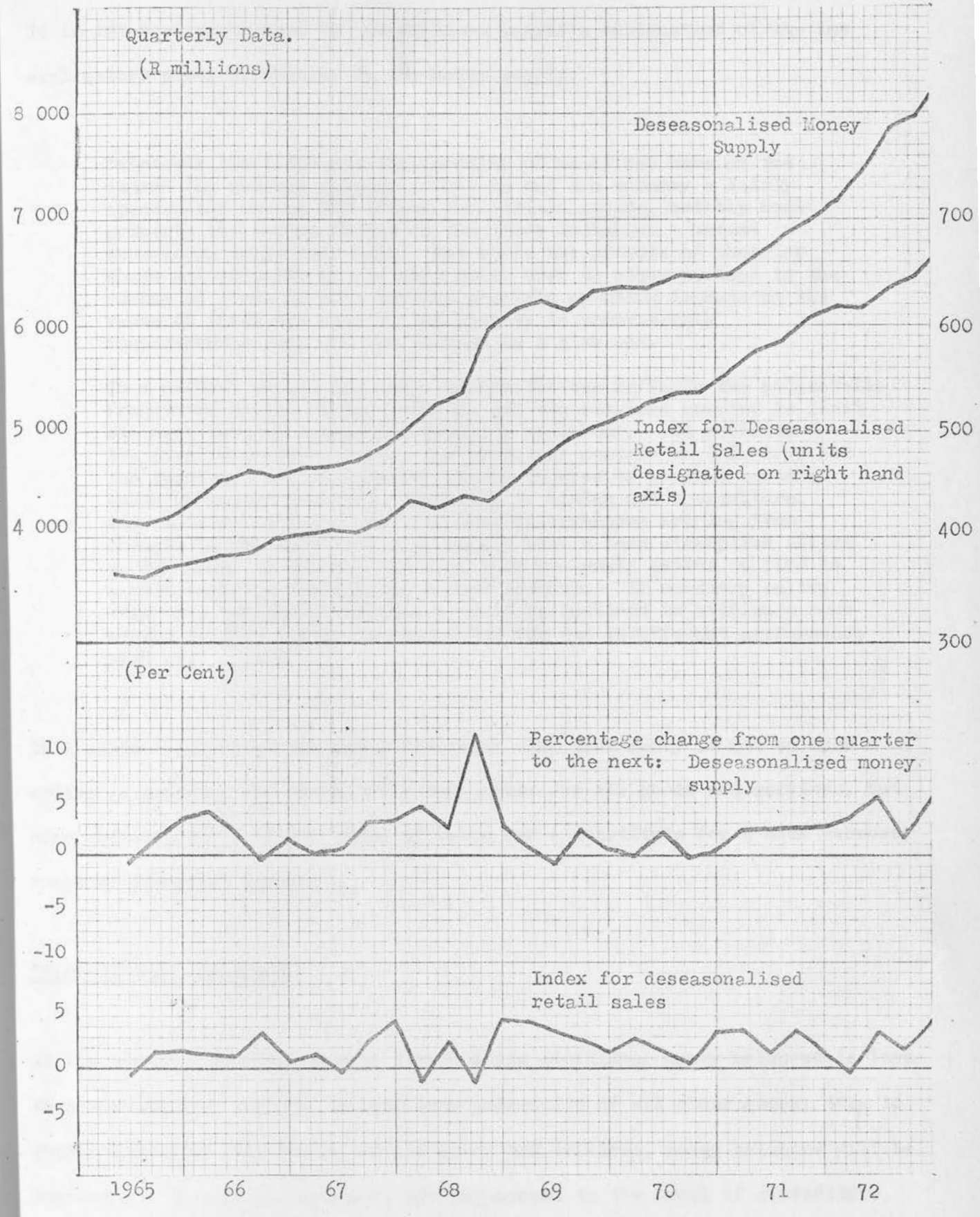
(20) The Durbin-Watson "d" statistic is a measure of autocorrelation in the residuals. The residuals associated with any estimated relationship are defined as:

$$u(t) = y(t) - \hat{y}(t)$$

where $y(t)$ is the observed value of the dependent variable at time t,

and $\hat{y}(t)$ is the value of the dependent variable at time t calculated from the estimated relationship.

In general, the closer the "d" statistic to a value of 2, the greater the confidence with which the hypothesis of serial correlation can be rejected.



Shaded areas are downswings as per Smit and Van der Walt.

It is interesting to note Dr De Villiers Graaff's explanation of the low explanatory power of changes in the money supply.

> "whatever the influence the quantity of money may have on the demand for current output, it has in our own economy a fairly spectacular one on the demand for certain assets, notably real property and shares listed on the Stock Exchange. Recent experience bears this out. But while the effects of changing share and property prices must spill over to other sectors in the course of time, if only because people's spending depends on the value of their net assets, our economy is surprisingly compartmentalised, and the process is a slow one.
>
> To a certain extent the compartmentalisation reflects the politically fragmented nature of our society, and the barriers erected to limit the vertical and geographic mobility of labour. It reflects too the great distances between our principal centres of industry, and the insulated and independent status enjoyed by several sectors based on export markets, especially in mining and agriculture. And so it is at least possible that disturbances arising from changes in the domestic money supply have a less disruptive effect on our level of private spending than you would expect to find in a more normally functioning market economy. If monetary policy were more successful abroad, I would be inclined to attribute some weight to this factor in accounting for its indifferent performance with us." (21)

This quote illustrates the usual Keynesian view that money is not so much a medium of exchange and therefore a substitute for all goods and services, but more particularly a liquid store of value and a substitute for a much narrower range of financial assets.

TRANSMISSION MECHANISM.

If the marginal utility derived from holding additional money balances is less than the marginal utility derived from possession of all other goods, then to obtain a desired 'portfolio' of all goods and services, money balances will be run down. Initially, at least, the adjustment to the level of expenditure will be made upon those assets, in the widest sense of the word, which are close

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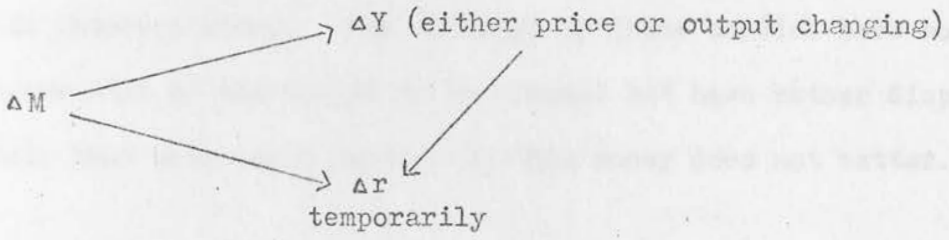
(21) De Villiers Graaff, J. "The National Debt." SAJE 1969 Vol 37 pp 181 - 182.

substitutes for money. From the above paragraph, it was noted that the monetarists emphasise the function of money as the medium of exchange (22), and, as such, the adjustment to a disturbance brought about by, for example, open-market operations will fall on expenditures on all goods and services, and assets - the adjustment process will be all-pervasive. The essence of the transmission mechanism is presented graphically as follows:



The Keynesians view money as a substitute for a much narrower range of financial assets; the transmission may be simply described as below:

$$\Delta M \rightarrow \Delta \text{short-run } r \rightarrow \Delta \text{long-run } r \rightarrow \Delta I \rightarrow \Delta Y \begin{matrix}(\text{either price}) \\ (\text{or output} \quad)\end{matrix}$$

This implies that monetary policy could be undertaken with greater certainty by gearing policy to determine desired interest rates, rather than by seeking control of the money supply. Monetary policy would be relegated to the background if it was felt that liquid assets were very close substitutes for money, as adjustments in portfolio selection following changes in the supply of money would induce only very small changes in interest rates. This was the view taken in the Radcliffe Report (23) paragraph 392. If expenditure

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(22) The practical difficulties of delineating what is money has not been covered. Interested readers are referred to Walters, A.A. op cit pp 21 - 25 and to Yeager, L.B. "The Medium of Exchange." Kyklos 1968 Vol 21 No 1 pp 45 - 68.

(23) Committee on the Working of the Monetary System REPORT Presented to Parliament by the Chancellor of the Exchequer by Command of Her Majesty in August, 1959. Cmnd 827. Hereafter referred to as the Radcliffe Commission.

decisions are relatively insensitive to interest rate changes, monetary policy is further damned.

Empirical work has been conducted to establish the interest rate elasticity of the demand for money. For if this elasticity is low it implies that money is not a close substitute for alternative financial assets and that adjustment would take place more by way of changes in money income than by way of variation in interest rates. The findings of these studies have not proved either extreme side of the debate to be correct but have rather disproved these views, namely that only money matters or that money does not matter.

VIEWS OPPOSING THE 'NEW' MONETARISM. (24)

At the basis of the monetarists' views on the potency of money is their belief in the relative stability of the demand for money function. They base this belief on empirical studies undertaken. In a survey of these studies, Professor Laidler maintains that they do not attribute to money sole importance in the determination of economic activity, but that they do suggest that money is too important to be relegated to the background. "They go a long way towards rehabilitating the quantity of money as one potentially important instrument whereby macro-economic activity can be influenced." (25)

If, however, the supply of money is demand-determined, then one would surely expect that the demand for money would be stable and hence changes in the money

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(24) The arguments cited stem mainly from Cramp and Kaldor's work: Cramp, A.B. "Does Money Matter?" Lloyds Bank Review October, 1970 No 98 pp 23 - 37; Kaldor, N. "The New Monetarism." Lloyds Bank Review July, 1970 No 97 pp 1 - 18. The 'new' is placed in inverted commas as there is a fairly close parallel with the old 'Currency School' arguments. See Cramp, A.B. "Two Views on Money." Lloyds Bank Review July, 1962 No 65 pp 1 - 15.

(25) Laidler, D. "Introduction to the Demand for Money " in "Readings in British Monetary Economics." Edited by Johnson, H.G. and Associates p 121.

supply could be thought to have predictable results. Thus, as emphasised earlier, the crux of the debate revolves around the 'major' direction of influence between money and income.

Digressing briefly from the causation issue, one could well query the practicality of controlling the supply of money. One could well ask, for example, whether the monetary authorities could successfully stem the annual spending spree at Christmas time by reducing the rate of increase of the money stock. If they did manage to reduce the supply of money, it would be likely that a new medium of exchange would develop to augment the reduced supply of 'official money'. For, in the past, the development of money and near-moneys has taken place as the needs for improved services from financial assets have grown.

An allied issue to this one is whether, in fact, the central bank would be able to control the money supply for any length of time. Take an inflationary situation in an economy, a situation in which a central bank would most likely wish to pursue a restrictive monetary policy. In these circumstances, however, investment demand might be buoyant and exceed the supply of loanable funds (hopefully curtailed). The obvious result will be the bidding up of interest rates in the financial markets. At present there does seem a pattern of rates above which a government would not allow interest rates to rise. This view stems from political, social and economic considerations. Moreover, certain financial institutions have borrowing and lending rates which are less flexible than others - they can not adjust their rates as easily as other institutions to the rising pattern of rates. The central bank may thus be required to reverse its tactics to relieve this 'excessive' pressure in the financial markets.

It is obvious, however, that to pursue a new strategy in monetary policy, which

emphasises the importance of monetary aggregates rather than interest rates, will involve an awkward period of adjustment (mention is made below in the discussion of instruments of monetary policy of possible legislative improvements that would facilitate this adjustment process). But should it lead to greater stability in prices, the difficult transition will have been worth making and interest rates may well fall below the level reigning, following a drop in inflationary expectations, at the time of the change in monetary tactics.

Another factor to be borne in mind is that the evidence cited by Friedman as proof of the power of money during the Great Depression is capable of another interpretation.

> "The revival of belief in the potency of monetary policy was fostered also by a re-evaluation of the role money played from 1929 to 1933. Keynes and most other economists of the time believed that the Great Contraction in the United States occurred despite aggressive expansionary policies by the monetary authorities - that they did their best but this best was not good enough. Recent studies have demonstrated that the facts are precisely the reverse: the U.S. monetary authorities followed highly deflationary policies. The quantity of money in the United States fell by one-third in the course of the contraction. And it fell not because there were no willing borrowers - not because the horse would not drink. It fell because the Federal Reserve System forced or permitted a sharp reduction in the monetary base, because it failed to exercise the responsibilities assigned to it in the Federal Reserve Act to provide liquidity to the banking systems. The Great Contraction is tragic testimony to the power of monetary policy - not, as Keynes and so many of his contemporaries believed, evidence of its impotence." (26)

The other view-point so persuasively presented by Kaldor runs as follows. From Friedman and Schwartz's own work (27), it is apparent that the money supply declined over this period despite a rise in high-powered money. The effect of this rise in high-powered money was offset by sharp declines in both deposit-reserve and deposit-currency ratios. Friedman attributes the latter's decline

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(26) Friedman, M. "The Role of Monetary Policy." op cit p 170.
(27) Friedman, M. and Schwartz, A.J. op cit chart 64.

to a fall in confidence in the banks. But it is interesting to note that this decline, again reading from Chart 64, has never been reversed. And as Kaldor asks, if it was a matter of confidence, why has this, in fact, been the case. The behaviour of the deposit-reserve ratio could be explained by the banks' feeling that they need become more secure and better able to cope with liquidity crises; but equally this decline could be explained by the fact that there were no willing borrowers - "of the horse refusing to drink." Kaldor ends his case by saying that he puts more trust in the views of Keynes and Simons, both contemporary observers, "than in some dubious (and tendentious) statistics produced thirty years later." (28)

Further weight is added to Kaldor's point-of-view, that the money supply is endogenously determined, through this regression analysis (29):

Regression Equations showing the Relationship of Changes in the Money Supply in the U.K. to the Public Sector Borrowing Requirement.

Data: Annual figures in the millions, relating to calender years.

Notation: ΔM = increase in money supply
P = net acquisition of financial assets by the public sector.

Standard deviation in brackets.

Period 1954 - 1968

$$\Delta M = -299{,}1 - \underset{(0{,}170)}{1{,}035}\ P \qquad R^2 = 0{,}740 \qquad s = 210{,}2$$

Period 1960 - 1968

$$\Delta M = -246{,}3 - \underset{(0{,}231)}{0{,}979}\ P \qquad R^2 = 0{,}714 \qquad s = 212{,}1$$

(28) Kaldor, N. op cit p 14.
(29) Kaldor, N. op cit p 18.

Cramp throws a further spoke in the wheel of the monetarists when he questions the arbitrariness of their definition of money. The money school claims that no matter whether a broad or narrow definition of money is used, the empirical results remain essentially the same. It is highly debatable whether this should be a cause of comfort as, given the fact that most series of economic data tend to move together, the monetarists have claimed to have rediscovered a unique and fundamental causal relationship.

Methodology of Economic Research: The final point to be considered in viewing the appearance of the monetarists' counter-revolution is the validity of economic research pursued to establish certain postulates. It should be noted that the statistical support for the contention that money matters has been derived from periods in which control of the money supply has been 'fitfully' attempted. How valid is it, or rather how invalid is it then to predict confidently that the relationship discovered will hold once the authorities embark on a policy of controlling monetary aggregates. It should also be realised that it is relatively easy to deduce statistical or pseudo-scientific support for a plausible theory, and it is all too easy to lose a scientific detachment that should be maintained in interpreting the results and in noting what other hypotheses the data would substantiate. In fact, what is brought out in the above discussion is the need, emphasised by Professor Culbertson (30), for a revised methodology of economic research that will allow, through the testing of hypotheses, the convergence of views towards a valid general theory, and not towards bolstering a particular school of thought, depending on the bias of the researcher. At present it does not seem possible to find results extablished that are not refuted by the opposing school of thought.

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(30) Culbertson, J.M. "Macroeconomic Theory and Stabilization Policy." (McGraw - Hill Book Company, 1968.)

It is worthwhile to digress briefly to outline in general terms the requirements of an unbiased social science as formulated by Culbertson:

> "1. A procedure for formulating and testing an unbiased sample of hypotheses.
>
> Evidently if the extent of formulation and testing of hypotheses is related to the popularity of alternative beliefs of ideologies (specifically among the community of "scientists"), the resulting substantive doctrines cannot be free of bias.
>
> Since the empirical propositions of social science are not of universal applicability and the domain of applicability of such propositions is not commonly self-evident, the methodology needs
>
> 2. Procedures for accurate specifications of the domain of empirical propositions.
>
> If the area of study is not to generate inconsistent propositions in the event of unbiased generation of hypotheses and biased propositions in the absence of this, the method must include
>
> 3. Unbiased procedures for discriminating testing of hypotheses, for supporting some competing hypotheses and rejecting others.
>
> Finally, since the claim to belief produced by a scientific discipline derives not from any particular study or experiment but from the cumulative probative value of corroborative studies and self-consistent laws and propositions, the methodology must include
>
> 4. Procedures for integration of the body of knowledge, for identification of inconsistencies and assessment of the weight of evidence supporting various aspects of the established body of knowledge." (31)

Should the research methodology be reformulated in this manner, there would not be two schools of thought with the emphasis on "frivolous innovation" rather than on the crucially important task of building up a valid macro-economic theory.

To conclude the Keynesian view on the importance of money it is most interesting to note Kaldor's response to Friedman's policy of a steady rate of increase in some monetary aggregate.

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(31) Culbertson, J.M. op cit p 122.

> "I doubt if this objective is attainable by the instruments of monetary policy in the U.S., let alone in the U.K. If it is ever attained, it will be because contrary to past experience, we shall succeed in avoiding stop-go cycles emanating from abroad, or from the private business sector, or, what is more likely, from the very changes in fiscal policy which aim to compensate for other instabilities; and if, by some combination of incomes policy and magic (but more by magic), we shall also succeed in keeping the rate of increase in money wages in both a stable and a reasonable relationship to the rate of growth of productivity." (32)

CONCLUSIONS.

Two fairly extreme views have been presented above, namely does money matter or does it not matter. The weight of evidence would seem to support the view that money does matter, not necessarily more than autonomous expenditure, however defined, but it matters enough not to allow the supply of money to run its own destructive course. Kantor adds a strong intuitive appeal to this end:

> "An inflationary process ... is more than a once and for all increase in the price level. Cumulative and continued increases in prices cannot be sustained by the mere expectation of price increases. Realised aggregate money demand must increase to offset the otherwise deflationary increase in prices and wages. An inflationary process therefore has to be accompanied by increases in the supply of money or its rate of utilisation. In practice there are likely to be effective limitations to the increase in the velocity of circulation of the money supply. Clearly therefore any continued increase in the level of prices will depend in part on the rate of growth of the money supply or more particularly on differences between increases in the supply of money and demands for it." (33)

Friedman's prescription for a stable rate of growth in some specified monetary aggregate makes sound sense bearing in mind the likely variation in the time it takes monetary impulses to affect the different sectors of the economy, the duration of those effects, and the difficulty in making accurate short and long-term forecasts of future economic conditions. (Difficulties involved in the pursuit of a sound stabilization policy are discussed further in Chapter VI.)

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(32) Kaldor, N. op cit p 17.

(33) Kantor, B. "General Equilibrium, Unemployment and Inflation." An unpublished paper.

The monetary authorities in Britain are a recent convert to the 'money matters' viewpoint. But a newspaper report recently published makes extremely interesting reading. It is worth quoting at some length.

> "A huge 3,9 percent jump in Britain's money supply last month has brought the annual rate of increase in the key economic control to 31,2 percent over the latest three months.
>
> Although the Bank of England was quick yesterday, when publishing the figures, to say that it had reason to suppose that the figures overstated the trend, the Monetary Bulletin circulated by the stockbrokers W. Greenwell and Company, commented baldly: 'It is no longer possible for anyone to delude themselves - the monetary aggregates remain out of control.'
>
> ... Present feeling in the bank itself is that it is difficult to move very far or quickly in the direction of tightening money so long as ministers insist that absolute priority must be given to nourishing the incipient investment recovery.
>
> Against this, the Greenwell bulletin argues that 'insufficient industrial capacity will be available to meet all the demands on the economy' becuase public expenditure plans will not slow down as fast as Treasury plans." (34)

Thus it would appear that the ability of a central bank to control the money supply hinges very much on the fact whether government expenditure is tailored to fit resources available to it. It is interesting to note that in the mini-budget introduced on the 17th December, 1973 by Chancellor of the British Exchequer, Mr A. Barber, public sector expenditure was pruned by some £1 200 million.

The fact that certain monetary aggregates in the United Kingdom were 'out of control' despite lip-service paid to the importance of money, certainly reinforces Kaldor's point, quoted on page 30, that he doubted whether a steady rate of increase in the money supply was possible. But most important of all it emphasises the point made in the latest developments regarding balance of

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(34) "Britain's Money Supply Bounds." An article which appeared in the Cape Argus on the 21st August, 1973.

payments theory and policy - that the authorities are not able to control the money supply under fixed exchange rates, but only that part of it termed 'domestic credit creation'. (This argument is presented fully in the next chapter.) Thus the monetarist prescription for stability demands flexible exchange rates and then a steady increase in the supply of money.

APPENDIX.

TABLE 2.

Deseasonalised Money Supply Figures.

(R millions.)

	1965	1967	1969	1971	1973
J	...	1566.8	2012.7	2144.6	2699.5
F	...	1543.9	2078.6	2171.7	2809.9
M	1353.1	1558.3	2066.2	2179.7	2883.0
A	1410.5	1545.0	2092.9	2193.6	
M	1392.8	1536.9	2077.6	2227.2	
J	1361.9	1593.2	2043.7	2228.7	
J	1393.8	1575.2	2032.8	2212.6	
A	1393.0	1583.9	2061.9	2330.3	
S	1353.7	1550.4	2068.6	2272.4	
O	1380.9	1596.1.	2081.0	2324.8	
N	1410.1	1619.2	2106.6	2326.2	
D	1406.5	1642.3	2127.8	2342.6	

	1966	1968	1970	1972	Seasonal Index
J	1422.3	1654.0	2114.6	2323.9	98.49
F	1461.5	1670.3	2093.3	2454.5	97.75
M	1459.1	1687.7	2140.9	2399.7	98.27
A	1492.1	1758.4	2104.1	2456.5	98.51
M	1497.0	1746.7	2113.6	2441.8	98.60
J	1529.6	1734.7	2129.3	2523.3	102.02
J	1554.8	1760.9	2141.0	2572.7	98.52
A	1505.2	1792.4	2180.9	2657.5	98.80
S	1545.5	1813.2	2157.6	2605.8	100.79
O	1547.1	1892.2	2151.3	2608.4	99.34
N	1508.7	2125.2	2154.9	2656.9	100.33
D	1537.3	1962.3	2163.8	2690.3	104.52

... not available

Source of raw data: SARB Quarterly Bulletins.

CHAPTER 111.

MEASURES RELATING TO THE BALANCE OF PAYMENTS.

INTRODUCTION.

Developments in the balance of payments have played an extremely important role in shaping the stabilization authorities' views on appropriate policies. This is understandable bearing in mind the openness of the economy (1), and the fact that confidence in the external value of the rand influences the flow of capital to South Africa.

The discussion below focuses on the recently revived and improved monetary approach to the balance of payments, and its implications for stabilization operations in South Africa.

THE IMPORTANCE OF THE EXTERNAL FACTOR.

Inflation has recently come to be considered not as a problem with national roots, but rather as an international problem. (2) According to Mr O.Emminger (3), Deputy Governor of the Deutsche Bundesbank, nearly all industrial countries, other than the United States, seem to be suffering 'in unison' a rate of inflation of 7 per cent or more. This view of inflation as an international

---

(1) Provisional figures for the year 1972 show that merchandise imports f.o.b. and service payments amounted to R4 143 million (26,8%); merchandise exports plus net gold output and service receipts amounted to R4 088 million (26,5%); during the year, there were capital inflows to the tune of R397 million. (The percentages in parentheses are the total import and export values expressed as percentages of GDP.)

(2) See, for example, Johnson, H.G. "Inflation: A 'Monetarist' View." Reprinted in his "Further Essays in Monetary Economics." (George Allen & Unwin Ltd , London, 1972.) pp 325 - 337.

(3) Emminger, O. "Inflation and the International Monetary System." A paper presented at the London School of Economics on the 31st May, 1973.

phenomenon, as contrasted with the explanation that inflation stems from certain sociological developments (4) and may thus be combated through the imposition of income controls, is far more plausible bearing in mind the secular rate of inflation that has existed in the 'western world' at least since 1965. Furthermore, this view gains considerable weight when one notes the degree of integration of world markets, the expansion of world trade, the existence of multinational corporations, the existence of the Euro-dollar market and generally more closely linked capital markets following the restoration of currency convertibility in 1958, and the existence of world prices for many commodities. In fact, following Professor Johnson, it is easy to illustrate the inappropriateness of theories hypothesising sociological factors as the primary cause of today's inflation. He draws the analogy of explaining inflation within a nation as a result of "coincidental sociological developments within the various regions of the nation". (5)

From factors viewed above it seems extremely plausible to view the world wide inflation as stemming from some common cause. The 'monetarists' view the acceleration in the rates of inflation since 1965 as stemming primarily from excessive monetary expansion in the United States, and transmitted to the rest of the world through the U.S. deficit on its balance of payments.

THE MONETARY APPROACH TO THE BALANCE OF PAYMENTS THEORY.

Professor Johnson (6) gives credit to Professor Mundell's writings on the

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(4) A view held by many, including the OECD - see Johnson, H.G. "Problems of Stabilization Policy in an Integrated World Economy." Reprinted in his "Further Essays in Monetary Economics." op cit p 348.

(5) Johnson, H.G. "Problems of Stabilization Policy in an Integrated World Economy." op cit p 348.

(6) Johnson, H.G. "Major Issues in Monetary Economics." A paper presented at Merton College, Oxford at a conference of the Money Study Group in September, 1973.

international monetary system as largely inspiring this new approach to the balance of payments theory and policy. The essence of this new approach is most satisfactorily gleaned from a quotation:

> "balance-of-payments policies will not produce an inflow of international reserves unless they increase the quantity of money demanded and domestic credit policy forces the resident population to acquire the extra money they want through the balance of payments via an excess of receipts over out-payments; and the balance-of-payments surpluc will continue only until its cumulative effect in increasing domestic money holdings satisfies the domestic demand for money. (Footnote: Note the important point that in a closed economy real balances are adjusted through price level movements, in an open economy through nominal money flows.)" (7)

Expanding the above quote, an explanation given below attempt to illustrate how this monetary approach differs from other approaches. (8)

In a 1-good model, using the normal abbreviations for income, saving etc.

$$Y = C + S$$

$$E = C + I + (X - M)$$

For $S = I$ (the domestic equilibrium condition),

$$Y - E = X - M = B(t)$$

But any of the transactions that take place have to be financed in some way. Therefore, there is a demand for money, because it so happens that money supplies this service in the cheapest way.

If $Y - E$ is positive, then there must be an excess of money that remains in domestic balances.

i.e. $H(t) = Y - E$

where $H(t)$ may be defined as "excess money."

---

(7) Johnson, H.G. "The Monetary Theory of Balance of Payments Policies." A discussion paper in Monetary Economics presented at LSE in 1973.

(8) Two monetary models illustrating balance of payments behaviour are presented in the appendix to this chapter.

In a complete model, this Y - E will equal X - M i.e. the net domestic effect will be accounted for by the net trade effect. Therefore, this excess money, H(t), will flow through the balance of payments to pay for X - M. This situation represents a flow equilibrium, but with the balance of payments not in equilibrium.

Y	-	E	=	H(t)	=	B(t)
income/output part		expenditure part		monetary part		balance of payments part

So, for balance of payments theory and policy, any two of Y,E and H may be studied; the other will be automatically specified, given a stable mechanism that always equilibrates the system. The traditional approaches to the balance of payments examined policies in terms of price elasticities and multipliers and left the demand for money to be residually determined. But since the balance of payments is the balance of cash and credit-financed payments, it is important to focus on H and probably E (under fixed exchange rates). The demand for money is central because the balance of payments measures net money-financed transactions - this forms the basis of the monetary approach.

Under this approach, the supply of money is given by:

$Ms = R + D$ where R is the international reserve and D the domestic credit (9).

---

(9) This expression is derived from simplified balance sheets of the central bank and the monetary banking sector in the appendix to this chapter.

The authorities do not control the supply of money as the international reserves respond to the extent that the domestic demand for money is not satisfied by domestic credit creation. The authorities, through control of domestic credit creation, may determine the division of the smoney supply, demanded by the residents, between international reserves and domestic credit. Johnson maintains that neither import restrictions, export subsidies, devaluation nor domestic deflation can be expected to improve the balance of payments position more than "transitorily" - these effects will be temporary insofar as they affect the demand for money once and for all.

To ascertain the meaning of "transitorily", the impact of a devaluation will be considered in terms of a monetarist-type model (10). It is necessary to establish the policies which will ensure a satisfactory long-run solution to the instabilities in the economy, particularly balance of payments disequilibria, assuming an adjustable fixed exchange rate. In other words, policies must not aggravate or lengthen the adjustment process towards the steady state equilibrium, they must be consistent with the steady state. The long-run is of importance as so little is known about short-run disequilibrium dynamics. As a first approximation to this problem reference is made to the work being done at the London School of Economics, the International Monetary Research Programme, in which the system is specified in the form of short-run adjustment functions that are consistent with steady state theory as described in this chapter.

The domestic demand for money, specified in terms of foreign currency, is given by

$$Md = \frac{1}{Eq} f(y,i)$$

where E is the exchange rate
q are foreign prices
y is real output and
i is the opportunity cost of holding money.

---

(10) The writer is indebted to Mr J. Sheen of LSE (Monetary Research Programme) for the exposition of this point.

It is assumed that world prices determine domestic prices and that the economy is fully employed.

$$g_{Md} = g_R + g_D$$

where g_{Md} is the growth in the domestic demand for money

and $$g_{Md} = g_E + g_q + n_y g_y + n_i g_i$$

where n denotes the elasticity of the aggregate defined by the function with respect to the subscripted variable.

Simplifying by assuming g_q and $n_i g_i$ both equal zero, and n_y equals one, the expression becomes:

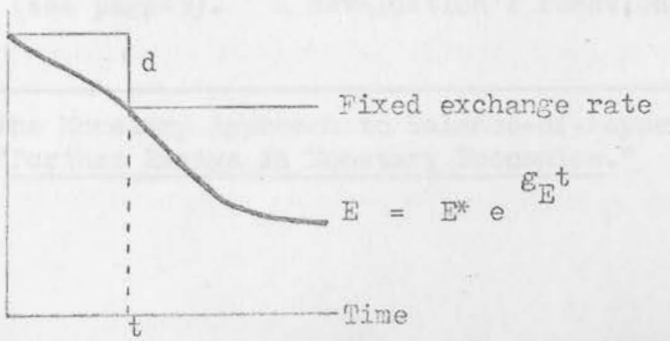
$$g_{Md} = g_E + g_y$$

i.e. $$g_E = g_{Md} - g_y$$

$$= G_R + G_D - g_y$$ which must hold through time in the steady state.

g_E may be positive, negative or zero to ensure equilibrium in the balance of payments in the long-run. Devaluation is a once-and-for-all change and thus equilibrium will only be attained in the balance of payments in a period of time, assuming the authorities devalue by the correct percentage. This can best be illustrated graphically.

Assume the path of the exchange rate through time to keep the balance of payments in equilibrium is as given below:



At time t, the authorities decide to devalue by d which balance of payments equilibrium requires at that instant of time. The new exchange rate, however is only 'transitorily' appropriate and becomes increasingly inappropriate given conditions as depicted.

Looking at Johnson's model (11) to illustrate the effects of an exchange rate adjustment provides interesting insights as to why a devaluation is not only 'transitory', but also may easily be offset by other factors. The same assumptions as used above are applicable.

The demand for money is given by:

$$Md = cq\ f(y,i)$$

where q is the foreign price level

and c is the price of foreign currency in terms of domestic currency.

Following from the mathematics reproduced in the appendix to this chapter, the rate of growth of reserves is given by:

$$\varepsilon_R = \frac{1}{r}\left(\varepsilon_c + \varepsilon_q + n_y \varepsilon_y + n_i \varepsilon_i\right) - \frac{1 - r}{r}\varepsilon_D$$

where ε_i may be interpreted as an expected rate of change of the money interest rate.

The points to be noted from the equation are that:

(1) a devaluation is equivalent, aside from the (1 - r) factor, to domestic credit contraction (see page49). A devaluation's function is to deflate

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(11) Johnson, H.G. "The Monetary Approach to Balance-of-Payments Theory." Reprinted in his "Further Essays in Monetary Economics." pp 246 - 247.

domestically - held real balances and thereby cause residents to adjust their expenditure in the international sectors, both real and financial;

(2) following the line of reasoning presented above, a devaluation being a once-and-for-all change, will only have a transitory impact on the growth of reserves through its impact on the demand for money.

(3) even this favourable transitory effect may be offset through - reading from the equation:

(a) an increase in the rate of domestic credit creation which may result, for example, from attempts to hold down the interest rate structure;

(b) a fall in the growth rate - the model would have to be modified to allow unemployment;

(c) a rise in interest rates leading to a fall in the demand for real balances per income level. This rise in interest rates could easily be generated through expectations of faster rates of inflation following the devaluation. Interest rates are to be interpreted to include the expected money rate of return on the holding of goods.

FLEXIBLE EXCHANGE RATES.

If one views the current national rates of inflation as being determined by the world rate of inflation, one can argue persuasively that freely floating exchange rates should become the norm. Much has been written about the advantages of flexible exchange rates (12). Probably the one most relevant comment to the control of inflation is the fact that they would give an extra degree of freedom to policy formation by removing the balance of payments' constraint on monetary and fiscal policies. There is not much to be said in favour of fixed exchange rates if a country is thus obliged to accept the rate

(12) See Giersch, H. "On the Desirable Degree of Flexibility of Exchange Rates." A paper presented at a conference at Ditchley Park, U.K. in January, 1973.

of price change prevailing in the world at large, or has to embark on a system of controls which contributes to the negation of benefits stemming from unimpeded international trade. Moreover, the international monetary system of fixed exchange rates generated inflation on its own. Emminger cites the following four main developments that contributed to this result:

(1) The system had an inflationary bias in that deficit countries were unwilling or unable to adjust their domestic economies to correct their deficits. In this regard, it is important to note the United States' deficit which, as the dollar was the reserve currency, had unlimited external financing available to it until the system broke down. Thus the adjustments, if any, to balance of payments disequilibria were left to the surplus countries to inflate at a faster rate.

(2) The system of fixed parities not only transmitted inflation throughout the world, but changed even non-inflationary structural deficits, like that of the U.S., into a source of inflation for other countries.

(3) Volatile capital flows of enormous magnitudes have come into existence during the last decade. In a system of fixed, but no longer trusted, parities they have increased the pressure of imported inflation in the recipient country, and have undermined stabilization measures in countries which had had relative price stability. These countries had been pillars supporting a workable fixed exchange rate system through the discipline they imposed on their trading partners. Furthermore, authorities were unlikely to allow capital outflows to exert any significant deflationary impact, while the central bank of the recipient country had to finance them by creating more central bank money.

According to Emminger, several countries completely lost control over their money supplies as a result of capital inflows. He cites Germany's experience as follows:

> "inflationary money inflows from abroad can be successfully sterilized insofar as they are directly deposited with the domestic banking system. However, the more effective the central bank is in this respect, the more it is likely that a large part of the inflow will be channelled through the non-bank sector, e.g. through changes in the leads and lags of commercial payments, through multinational corporations (foreign and domestic), and through all kinds of other borrowing operations ... Our experience has been that in no case has it been possible to undo the inflationary effects of foreign inflows entirely, not even by the strongest compensatory measure. ... it is difficult to see how we can dispense with a more elastic exchange rate system in order to hold such flows in check." (13)

(4) The final point being that the system with its currency reserves, in particular the dollar, had a tendency to create excessive international liquidity. Not only was the U.S. deficit to blame, for increasing amounts have come into existence as a result of the 'diversification' of exchange reserves by central bankers into currencies other than the dollar, as well as money created in the Euromoney market.

Floating exchange rates are certainly not a panacea for all problems, but they could give traditional demand management policies a better chance of success in their attempts to stabilize the economy. It is worth noting, however, that a general float, in all probability only a general 'dirty' float (14), will only improve the situation where the residents of a country accept the cut in real incomes following a downward movement in the parity of their currency. And yet under the adjustable fixed exchange rate system, a one-way adjustment process, stemming from countries' unwillingness to pursue deflationary policies,

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(13) Emminger, O. op cit pp 20 - 21.
(14) "Dirty" float implies that the exchange rate is not determined solely by market forces but by government intervention either to moderate its movement or to peg it 'temporarily' to some desired rate.

was one of the reasons for the collapse of the fixed exchange rate system. It will be interesting to note if residents will be prepared to accept this form of reduction in real income which a flexible exchange rate system could imply.

The rand is currently floating with the dollar. Yet movements in the value of the dollar relative to other countries, particularly those countries with whom South Africa trades on a reasonable scale, may prove to be destabilizing as far as the South African economy is concerned. The rand could depreciate relative to, for example, sterling at a time when high rates of inflation prevailed in South Africa. The subsequent rise in the rand price of imports could generate higher prices due to cost increases. Although the Franzsen Commission (15) felt that the development of an exchange market was not practical under the conditions then prevailing, it does seem advisable for this alternative to be reconsidered.

CONCLUSIONS.

The models presented above, and in the appendix, are essentially long-run models. This follows from the assumptions of full employment and that the domestic price level would be determined by world prices. Any short-run model must be a disequilibrium model which focuses on disequilibrium effects of an excess stock demand for money, that is, if one is interested in balance of payments policies. The traditional theories of the balance of payments are essentially short-run quasi-equilibrium models and have largely formed the basis of policies pertaining to the international economy. Bearing in mind the results derived above and in the appendix (16), there is

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(15) Franzsen Commission. "Fiscal and Monetary Policy in South Africa." Third Report of the Commission of Enquiry into Fiscal and Monetary Policy in South Africa (Government Printer, Pretoria, 1970.) R.P. 87/1970 para 499. Hereafter referred to as the Franzsen Commission (Third Report).

(16) It is established that as incomes increase one can expect the level of reserves to rise, unless the demand for money is satisfied by domestic credit expansion.

great danger in viewing successive short-run policy results as approximating the effects of policy on the economy in the longer-run.

The measures used to control the balance of payments in South Africa are unlikely to have achieved anything but a transitory improvement in the level of reserves. Import controls, for example, assuming a constant rate of increase in the level of domestic credit, may simply divert the source of satisfaction of the demand for money to the capital account with no necessary improvement in the level of reserves. (17) Policy reactions may not only attain temporary improvements in the level of reserves, but may prove inconsistent with longer-term steady state conditions for the economy. Not only may the adjustments to policy prolong the attainment of steady state growth, they may not improve short-term performance at all owing to the lack of knowledge surrounding the dynamics of disequilibrium adjustment in the short-run. For these reasons, improvements in the application of import controls, export subsidies, capital controls and exchange rate adjustments will not be considered in detail.

Other factors reinforce this treatment: GATT poses a severe constraint on the use of import controls for purposes other than to improve the balance of payments' condition; export subsidies are unlikely to be employed anti-cyclically; as regards capital controls, the importance of continued foreign investment in South Africa is well known; and exchange rate adjustments, other than when floating tied to a major currency, are likely to be measures employed only when a balance of payments disequilibrium has manifested itself for some time. Devaluation, in particular, was generally resorted to as a measure of last

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(17) The money supply, $M_s = D + R$, is demand-determined. Given a constant rate of increase in D and in Md, should current account transactions be impeded through import controls, the change in R, necessary to adjust Ms to Md, will be achieved through the capital account.

resort as it was a step likely to be exploited by the political opposition. They would tend to portray it as a failure of the Government to cope with the situation using more 'orthodox' methods viz. monetary and fiscal measures. Obviously now that the fixed exchange rate system has broken down, the opposition, both domestic and from the IMF, to exchange rate adjustments has been substantially reduced.

APPENDIX.

Professor Johnson's monetary model of balance-of-payments behaviour in a growing world economy is examined below. (18) It is assumed that the country dealt with is growing over time, that it maintains a fixed exchange rate with the rest of the world, and that it is small and diversified enough to assume its price level to be the world price level and its interest rate to be the world interest rate through arbitrage operations. The economy is assumed not to deviate from full employment of its resources. It is further assumed that the supply of money is instantaneously adjusted to the demand for it, as the residents of the country can get rid of or acquire money either through the capital or current account of the balance of payments. The secondary monetary effects of the net balance are assumed to be neutralised.

It is accepted by Johnson that these assumptions are very restrictive, but they are employed to focus attention on the monetary effects which are the most important features of the concept of balance of (cash or credit) payments. The balance of payments is, as noted above, the net effect of movements of domestic and foreign credit, generated by adjustments to the stock demand for money, and other assets. It is worth noting that the assumption of 'instantaneous adjustment' to the demand for money is not strictly necessary as the model is a long-run model. The coefficient of adjustment is thus not important.

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(18) The models discussed below appear in Johnson, H.G. "The Monetary Approach to Balance-of-Payments Theory." Reprinted in his "Further Essays in Monetary Economics." op cit pp 237 - 245.

The demand for money (19) is simply specified as

$$Md = p\, f\,(y,i)$$

where Md is the nominal quantity of domestic money demanded
y is the real output
p is the foreign and therefore domestic price level
i is the interest rate or alternative opportunity cost of holding money.

The supply of money is given by

$$Ms = R + D$$

where R is the international reserve
and D the domestic credit.

It is worthwhile to digress to derive the expression for the supply of money from simplified balance sheets of the central bank and banking sector.

Central Bank.

Liabilities.	Assets.
H: high-powered money of the banking system	R : gold and foreign exchange reserves B(1): government securities.

From the balance sheet identity, $H = R + B(1)$

Banking Sector.

Liabilities.	Assets.
M: deposits	H : cash reserves B(2): government securities A : advances.

Hence $M = H + B(2) + A$

Substituting for H,

$$M = R + (B(1) + B(2) + A)$$

i.e. the money stock = reserves + domestic credit creation.

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(19) Since the demand for real balances is determined by a utility maximisation procedure, it will take on the property of unitary homogeneity in prices, since the holding of real balance will be independent of nominal units (For $X = f(y,w)$, $k^n X = f(ky,kw)$ implies homogeneity of degree n.)

Thus the authorities do not control the money stock under fixed exchange rates but the level of domestic credit, or rather the division of the money supply demanded by the residents between international reserves and domestic credit.

To return to the model, by assumption, Ms must equal Md

thus $R = Md - D$

Now $\varepsilon_R = \frac{DR}{R} = \frac{1}{R} B(t)$ where $DR = \frac{dR}{dt}$

where $B(t)$ is the current overall balance of payments
and ε_R is the growth rate per unit of time of reserves.

thus $\frac{DR}{R} = \frac{D(Md)}{R} - \frac{D(D)}{R}$

i.e. $\varepsilon_R = \frac{Md}{R}\frac{D(Md)}{Md} - \frac{D}{R}\frac{D(D)}{D}$

Letting $r = \frac{R}{Ms} = \frac{R}{Md}$, the initial international reserve ratio, the equation above can be simplified:

$$D = Md - R$$

$$\frac{D}{R} = \frac{Md}{R} - 1$$

$$= \frac{1 - r}{r}$$

thus $\varepsilon_R = \frac{1}{r}\varepsilon_{Md} - \frac{1 - r}{r}\varepsilon_D$

Now $\varepsilon_{AB} = \varepsilon_A + \varepsilon_B$

thus $\varepsilon_R = \frac{1}{r}(\varepsilon_p + \varepsilon_{f(y,i)}) - \frac{1 - r}{r}\varepsilon_D$

and $\varepsilon_{f(A,B)} = n_A \varepsilon_A + n_B \varepsilon_B$ where n denotes the elasticity of the aggregate defined by the function with respect to the subscripted variable.

thus $\varepsilon_R = \frac{1}{r}(\varepsilon_p + n_y \varepsilon_y + n_i \varepsilon_i) - \frac{1 - r}{r}\varepsilon_D$

By assuming constant world prices and interest rates, the equation becomes

$$g_R = \frac{1}{r} n_y g_y - \frac{1 - r}{r} g_D$$

This implies that as incomes increase, unless offset by domestic credit expansion, international reserves increase. The explanation being that as income grows, so does the demand for money and this is satisfied through the balance of payments. Secondly, assuming no growth in income, the growth of reserves is inversely related to the rate of domestic credit expansion.

The first implication may be vividly contrasted with the more commonly held simple Keynesian view that an increase in income will lead to an increase in imports with a resultant deterioration in the balance of payments.

The model above was concerned with one small country in a large world economy. The next model considers monetary equilibrium in the world system as a whole. The residents of various countries demand national monies which are based partly on international reserves and partly on domestic credit. The essential difference between the two models is that the world price level is now endogenously determined by the relation between the growth rates of the world demand for and supply of money.

It is assumed that world interest rates are constant so that the growth of demand for real balances is a function only of the growth of real output. This assumption can be justified by the fact that real rates of return on investment are relatively stable and that nominal interest rates in the long-run will be equal to the real rate plus the expected rate of world inflation.

In the model the total money supply for the world economy is

$$M = R + \sum_i D_i$$

$$= \sum_i w_i r_i M + \sum_i w_i (1 - r_i) M$$

where R is total international reserve money
D_i is domestic credit in country i
w_i is country i's share in the total world stock of money
and r_i is country i's ratio of international reserve money to its domestic money supply.

The rate of growth of world demand for money is

$$g_{Md} = \sum_i w_i n_{y_i} g_{y_i} + g_p$$

assuming the homogeneity postulate as before.

The rate of growth of the world money supply is

$$g_{Ms} = \sum_i w_i r_i g_R + \sum_i w_i (1 - r_i) g_{D_i}$$

The equilibrium condition requires that $g_{Md} = g_{Ms}$, thus

$$g_p = \sum_i w_i r_i g_R + \sum_i w_i (1 - r_i) g_{D_i} - \sum_i w_i n_{y_i} g_{y_i}$$

From the result derived in the model above, and assuming world interest rates constant, the rate of growth of country j's reserves is given by:

$$g_{R_j} = \frac{1}{r_j}(g_p + n_{y_j} g_{y_j}) - \frac{1 - r_j}{r_j} g_{D_j}$$

$$= \frac{1}{r_j}\left(\sum_i w_i r_i g_R + \sum_i w_i (1 - r_i) g_{D_i} + n_{y_j} g_{y_j} - \sum_i w_i n_{y_i} g_{y_i} - (1 - r_j) g_{D_j}\right)$$

$$= \frac{1}{r_j}\left\{\sum_i w_i r_i g_R + \left(n_{y_j} g_{y_j} - \overline{n_y g_y}\right) - \left[(1 - r_j) g_{D_j} - \overline{(1 - r) g_D)}\right]\right\}$$

where the bars indicate the average product of the barred terms for the world economy.

Reading from the above equation, a country's reserves will grow faster the lower its initial reserve ratio r_j, the faster the growth of total world reserves g_R, the higher its income elasticity of demand for money, n_{y_j}, and its real growth rate, g_{y_j}, relative to other countries, and the lower its international reserve ratio and rate of domestic credit expansion, g_{D_j}, relative to other countries.

Simplifying by assuming that income elasticities of the demand for money are everywhere unity(20), and that international reserve ratios are also the

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(20) The assumption of unitary income elasticity of the demand for money is made to ease exposition of the result. In fact, according to work done by Laidler, D. and Parkin, J.M. in the U.K. post-1945, the income elasticity of the demand for money has probably been less than 1. See "The Demand for Money in the United Kingdom, 1955 - 1967: Preliminary Estimates." Reprinted in "Readings in British Monetary Economics." (Clarendon Press, Oxford, 1972.) Edited by Johnson, H.G. and Associates pp 181 - 200.

same everywhere,

$$g_{R_j} = g_R + \frac{1}{r}(g_{y_j} - \overline{g_y}) - \frac{1 - r}{r}(g_{D_j} - \overline{g_D})$$

which shows that the growth rate of a country's reserves will, on these assumptions, tend to be faster than the world average if its real growth rate is greater than the world average, and slower than the world average if its rate of credit expansion is greater than the world average, and vice versa.

CHAPTER IV.

INSTRUMENTS TO CONTROL DOMESTIC CREDIT CREATION.

INTRODUCTION.

In this chapter the manner in which the authorities have sought to control the cost and availability of credit is examined. The instruments will be classified under indirect controls, selective controls, direct controls, and measures to influence the cost of credit. The classification is often somewhat arbitrarily determined as each section is not mutually exclusive, because efforts to affect the supply of credit will have an affect on the cost of credit, and conversely. Then follows a discussion of the implications of Government financing operations, and finally a section on developments in legislation which affect the conduct of monetary policy.

The discussion of each instrument will centre around whether it achieves its objective and the degree of distortion it may cause the normal competitive functioning of the economy, in particular in the financial sector. Little attention will be focused on either inside or outside lags (1) - as regards the inside lag it was noted in Chapter 1 that it is usually shorter in the case of monetary policy than with fiscal policy instruments; and as so little is known about the outside lag, speculation in this regard was considered futile.

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(1) The inside lag is defined as the elapse of time between recognition of the need to change an instrument setting and the actual implementation of the change. The outside lag is the period of time between implementation of the policy change and its impact on some specified variable.

Before proceeding to discuss specific instruments of monetary policy, however, it is appropriate to note here the authorities' views on 'appropriate' levels of interest rates, the impact of these views on the general functioning of the economy, and the constraints they set on attempts to control the level of domestic credit creation. Thus in this rather lengthy introduction, the ramifications of interest rate policies will be explored in some detail.

The Interest Rate Structure in South Africa:

> "Several types of serious conflicts with other goals may arise from monetary policy actions that could help stabilize economic activity. These issues become especially important in periods of tight money because losses in the market evaluation of wealth impose a welfare cost, because rises in nominal interest rates redistribute income, and because tight money has a severe impact on the share of output devoted to homebuilding." (2)

A central bank has certain policy instruments under its control which it may use to influence monetary variables. In South Africa, the variable to which the monetary authorities have attached most significance has been the interest rate structure.

> "Of primary importance in this (stabilization) field are (1) government finance, (2) public debt management, (3) open-market operations, (4) central bank rediscount and related policies and (5) balance of payments policies, including exchange rate policy and both exchange and import control. And it should be underlined that in all five of these subdivisions of policy a key role is played by interest rates." (3)

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(2) Okun, A.M. "Fiscal-Monetary Activism: Some Analytical Issues." Brookings Papers on Economic Activity. (1; 1972) p 130.

(3) De Kock, G. "Credit Ceilings and Variable Cash Reserve and Liquidity Requirements." The South African Banker August, 1972 Vol 69 No 2 p 139.

It was during 1952 that the Treasury approved of a proposal by the Reserve Bank to quote a pattern of rates for Government, municipal and public-utility securities. These rates were to be maintained by official policy for as long as the existing conditions, under which they were established, continued. This step was undertaken to improve the attractiveness of this fixed-interest form of investment as, up until then, public bodies had experienced difficulties in raising capital because, it was felt, investors feared that they would suffer capital losses. Interest rates had, in fact, been rising and it was generally expected that they would continue to rise owing to the shortage of capital in South Africa. From May, 1960 the quotation of rates of securities with maturities up to three years was discontinued in order to encourage market activity in these short-dated stocks.

Because Government securities are, to a certain extent, substitutes for other types of financial assets, the prices of these two would tend to move together. The pattern of rates on Government securities and Bank rates have been altered as financial conditions changed but these small increases, generally, have followed, sometimes after some delay, market conditions rather than encouraged a new structure of rates to suit the economy's condition. That is, the authorities attach considerable importance to the relative stability of interest rates, and have not changed interest rates to lead rather than follow market forces and thus become a potentially effective anti-cyclical variable, through its effects on the demand for and supply of funds.

The authorities' concern for interest rates, lower than could be attained in the absence of intervention during inflationary periods, would seem to stem from considerations of the interest burden of the public debt and the implications for other borrowers, notably prospective home-owners and farmers. To resist upward pressures on interest rates, the authorities have created a captive market through legislation which requires individuals and companies, through

loan levies, and in particular financial institutions by way of compulsory asset ratios to lend stipulated sums of money to the Government sector. In this way, the authorities have reduced their reliance on taxation, short-term financing and borrowing from abroad to finance Government expenditure. At times, deposit rate controls have been imposed in an effort to prevent interest rates from rising. Moreover, direct controls on the balance of payments in the form of exchange and import controls have enabled the South African interest rate structure to be less sensitive to foreign interest rate movements.

While discussing attempts to control the level of nominal interest rates it is important to realise the effect of cumulative price increases upon interest rates, once price rises become expected. In the expectation of inflation, savers would demand higher interest earnings, other things equal, while borrowers would be willing to pay more. These reactions would force up the level of nominal interest rates. This upward pressure on interest rates, however, would be mitigated by the extent to which firms and households economise on their cash balances. Through this reduction in cash balances the demand for financial securities could be increased, thus bidding up their prices and so moderating, to a limited extent, the pressure on interest rates.

Another factor to bear in mind when considering control of the interest rate structure is the extent to which 'grey market' activities, that is the borrowing and lending of funds between firms which does not involve intermediation by a financial institution, is likely to exert upward pressure on interest rates. Once credit ceilings had been imposed to control directly the amount of lending to the private sector, it is to be expected that grey market activities, and pressure on interest rates, would increase. The banks would attempt to retain large deposits by offering higher interest rates, for there is no guarantee that the company which borrowed the money in the grey market exchange would redeposit it again with the same bank which had "lost" the funds. Furthermore,

grey market operations would be extended in an environment where there were large liquid non-financial organisations, an unrealistic structure of interest rates, and, already mentioned, restraints on credit extension to the private sector. The allocation of funds through grey market operations is likely to be less optimal than through unconstrained financial intermediation, as one expects that intermediaries would be able to lend at lower prices via economies achieved through specialisation and the pooling of risks. Where there were no credit restrictions, competition between financial intermediaries for new borrowers could lead these institutions to exercise greater care in the choice of business operations they finance as they would be offering funds at competitive prices. Inter-company lending, however, may be concluded through inter-locking directorates, and thus other companies, possibly young and enterprising, have no chance to compete for the funds.

Although interest rates do play an important role in the five subdivisions of economic policy which Dr G. de Kock enumerated, the authorities' concern with the stability of interest rates has imposed severe constraints on their ability to use effectively monetary measures to combat inflation, to finance an ever-increasing level of Government expenditure from non-inflationary sources, and to utilize interest rates themselves as an anti-inflationary measure.

The first point, dealt with more fully below in the section "Control of the Money Supply", is probably the most telling disadvantage of a pre-occupation with interest rates, and that is that the level of domestic credit will adjust passively to achieve desired interest rates. For example, should holders of Government securities wish to become more liquid and sell their securities, the Reserve Bank will buy these securities to prevent their price from falling. Thus the liquidity of the economy will be increased through this exchange of money for a financial asset. Higher expected rates of inflation, ceteris paribus, are likely to reduce demand for fixed interest securities; holders

of fixed interest securities may well wish to sell to avoid possible capital losses. In these circumstances, the money supply will expand rapidly to maintain an interest rate structure. Not everyone is a monetarist, but given that inflation is present, a rapidly expanding money stock is likely to aggravate the rise in prices and so place increasing pressure on nominal interest rates. It will thus become more and more difficult to maintain a comparatively rigid interest rate structure.

> "The possible conflict between stable interest rates and stable prices and exchange rates has also come to be recognised. Increases in the money supply designed to prevent an upward movement in market interest rates stimulate the commodity and labour market of the system and lead, if capacity is fully engaged, to higher prices and wages. The higher prices and costs in time tend to react back on the financial markets causing further pressure on interest rates, further expansions in the money supply and so on. Like exchange rates, interest rates have tended to become more flexible in the longer run in the pursuit of more stable prices." (4)

Thus it would seem advisable for the authorities to alter their priorities to establishing, in the first instance, the size of the credit base and then allowing rates of discount and other interest rates to adjust consequentially.

Moving from the general to the more specific, the authorities have not been able to pursue effective open-market operations partly owing to the effects of a relatively inflexible interest rate policy.

> "Open market operations have neither been employed to bring about cheap money conditions nor in a positively disinflationary manner, but have been used mainly to ensure orderly adjustments and reasonable stability in the pattern of interest rates in the light of the prevailing economic conditions." (5)

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(4) Kantor, B. "General Equilibrium, Unemployment and Inflation." An unpublished paper.

(5) Evidence given by the Governor of the SARB to the Commission on the Working of the Monetary System (Radcliffe Commission) in 1958, which appeared in their Principal Memoranda of Evidence Vol 1 Part V p 287.

Admittedly the scope for traditional open-market operations, dealt with below, has been limited by the degree of development of the secondary market in Government securities. But the fact that this market has remained lacking in breadth, depth and resilience is, to a certain extent, attributable to the fact that the authorities have been unwilling to pursue a flexible interest rate policy. There has, therefore, been no scope for individual specialist brokers, as dealings have been transacted around the 'stipulated' prices. To encourage dealings in the market, dealers must be able to make profits and this requires flexible interest rates. Certainly open-market operations would incur expenses for the authorities, but this cost must be weighed up against the benefit of achieving greater stability through market forces.

The difficulty in financing Government expenditure from non-inflationary sources is dealt with below. The final point to be discussed under this heading is the use of interest rates as an anti-inflationary measure. There are, broadly speaking, two schools of thought on this issue. The one being that higher rates of interest, rather than restraining demand and thus dampening inflationary pressures, would be passed on in the form of higher prices as a result of the increase in the cost structure of the economy. This view, however, should be questioned on the grounds that increased interest charges, or, for that matter, any increased costs, will be passed on depending on whether producers feel that the level of demand can sustain these price increases. If demand is successfully curtailed, the increased costs may well have to be absorbed in increased productivity or lower profits. The other argument focuses attention on the effect of high interest rates on stimulating saving in preference to increasing spending and incurring financial obligations.

Professor Goedhuys (6) very strongly supports this latter view. He contends

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(6) Goedhuys, D.W. "Has Monetary Policy Failed?" SAJE 1972 Vol 40 pp 77 - 83.

that rising interest rates naturally follow cumulative price increases and, if they are supplemented by other deflationary measures, help restore stability in the economy. In fact, a rise in the level of interest rates forms an integral part of anti-inflationary policies implicit in open-market operations, restrictive discounting and higher liquid asset requirements for the monetary banking sector. Lord Robbins (7) expressed the view that just as the movement in the prices of all other goods affected their conditions of demand and supply, so too would changes in loan markets have like effects on the demand and supply of funds.

Control of Domestic Credit Creation: As has been indicated in Chapter 11, many economists have come to consider control over domestic credit creation to be the sine qua non of stabilization policies. In the United States and the United Kingdom, for example, there has been the increased tendency to regard monetary aggregates as very important for stabilization policy:

> "As many of you will be aware, we in the United Kingdom have recently embarked on a major change in our approach to monetary policy ... we have increasingly shifted our emphasis towards the broader monetary aggregates - to use the inelegant but apparently unavoidable term; the money supply under one or more of its many definitions, for example, or domestic credit expansion." (8)

In South Africa, as Mr Kantor (9) has established, the monetary authorities have not utilised their ability to control the money base and so the reserves of the banking system. (At that time the balance of payments was largely controlled by import and exchange controls.) They were pre-occupied with

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(7) Robbins, L. "The Economist in the Twentieth Century and Other Lectures in Political Economy." (MacMillan, London, 1971.)

(8) Governor of the Bank of England. "Key Issues in Monetary and Credit Policy." BoE Quarterly Bulletin June, 1971 Vol 11 No 2 p 195.

(9) Kantor, B. "The Money Supply and the Inflationary Process." SAJE 1968 Vol 36 pp 314 - 329.

maintaining a 'preferred', though not fixed, structure of interest rates, and so the high-powered money of the system fluctuated to accommodate this objective. In August, 1970 it was announced that subsidies would be paid to deserving sectors, notably farmers, home-owners and exporters, to cover increases in the cost of borrowing funds. (Bank rate had just been increased and the financial institutions had been released from their obligation to keep deposit rates below 7 per cent.) Kantor (10) expressed the hope that this move would indicate a major break-through for monetary policy, where attention could be paid to the level of domestic credit creation and where interest rates would be determined by market forces.

Theoretically the South African monetary authorities can achieve control of the high-powered money of the system in the short-run through open-market operations.(11) If the authorities should sell Government securities to the non-bank private sector, this would ultimately decrease the commercial banks' deposits with the Reserve Bank, providing the proceeds of this sale were not spent by the Government sector. Assuming the banks were not holding excess reserves, they would be forced to improve their liquidity positions to comply with the cash and/or 'liquid asset' requirements. Their first action could well be to withdraw their call money deposited with the discount houses. As the discount houses will have employed these funds in some manner, they, in turn, will be forced either to borrow from the Reserve Bank or sell some of their assets.

If they decide to sell some of their assets, this will again lead to a reduction

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(10) Kantor, B. "The Evolution of Monetary Policy in South Africa." SAJE 1971 Vol 39 pp 42 - 72.

(11) According to the monetary theory of the balance of payments, as set out by Professor Johnson, the money supply in the long-run will adjust to satisfy the domestic demand for money.

The analysis follows that of Newlyn, W.T. "Theory of Money." (Clarendon Press, Oxford, 1971.)

in the commercial banks' deposits with the central bank. As before, the banks will be required to adjust their asset portfolios, but to a lesser extent. And so the process would continue until the level of reserves held could support the level of deposits. The process of adjustment, following the sterilisation of funds through open-market operations, does not have to involve only the discount houses. In practice the commercial banks will have some desired spectrum of assets, i.e. where they are not constrained in their choice of assets, and they can effect the necessary adjustment to the level of reserves by selling any type of asset. The result, however, would still be a multiple contraction of deposits.

Alternatively, to enable the discount houses to meet their obligations, the Reserve Bank could discount certain eligible assets, or loan money to them in its capacity of 'lender-of-last-resort'. The charge on these loans may be greater than the marginal return on the discount houses' portfolios thus inducing them to sell these assets to repay the loans. The end result will be the same as if the discount houses had sold some assets in the first instance instead of 'going into' the central bank. This sale of assets would be likely to affect their price.

Should the Reserve Bank accommodate the discount houses at a non-penal rate there would be no call for them to reduce their indebtedness to the Bank. If one looks at Table 7 in the appendix to this chapter, one is inclined to agree with Kantor's (12) conclusion that the discount market has made use of the Reserve Bank as a source of funds for long stretches of time, and this would seem to imply that the discount/lending rates were not penal rates, sufficiently high above market rates, to reduce their more or less permanent reliance on Reserve Bank credit. The role of the National Finance Corporation as the

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(12) Kantor, B. "The Money Supply and the Inflationary Process." op cit.

side-door of the Reserve Bank has been important in this connection.

As noted above, should the Reserve Bank stand behind the discount market at non-penal rates, a multiple reduction of deposits would not take place, and thus the objective behind the open-market sales would be defeated. To understand why the authorities might pursue this self-defeating course of action, it is necessary to note the importance the authorities attach to the interest rate structure, which was discussed above, and to note the official view that any refusal on the Bank's part to monetise liquid assets, recognised as such in the Banks Act, "or any real discouragement to such transactions through penalty rates, would so reduce the status of the credit instruments concerned that the Bank would in future probably be forced to create much larger amounts of credit directly for the Land Bank, and if wider use were made of cash reserve requirements, perhaps even also directly for the Government. It could also, of course, have implications for the market in bankers' acceptances and trade bills. Excessive use of variable cash reserve requirements could furthermore tend to raise interest rates, which might not always be desirable or acceptable to the Government." (13) Furthermore, the discount houses are useful to the Reserve Bank in its debt management role as they are the pillars of the short-term money market. The Bank would, therefore, be reluctant to reduce the discount houses' volume of business by reducing their discounting privileges.

Conclusion: Interest rates do definitely play an important role in determining, if not the level, then the direction of economic activity. The benefits of freeing interest rates would seem to outweigh the negative considerations of the likely increased interest burden on the national debt, particularly in the short-run, of fluctuating capital values of financial assets, and of the

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(13) De Kock, G. "Credit Ceilings and Variable Cash Reserve and Liquidity Requirements." The South African Banker August, 1972 Vol 69 No 2 p 136.

political and social requirements which, in fact, could be and have been catered for through the implementation of subsidies paid directly to 'deserving' borrowers - interest rate controls are really roundabout methods of providing subsidies. Furthermore, once reasonable stability in prices becomes expected, the structure of nominal interest rates is likely to fall.

The Franzsen Commission recommended that the practice of quoting a pattern of rates for Government securities be abandoned. This would mean that the Treasury would have to take greater heed of market conditions when borrowing money. In the United Kingdom, the move in this direction was announced during 1971 when their authorities stated their intention to allow greater freedom for prices to move according to market forces in the gilt-edged market, and thus hoped to stimulate private institutions to make a better market in gilt-edged securities. That is, they wished to allow the price mechanism to allocate credit, and once equilibrium was achieved in the loan market, they hoped to pursue the objective of stable prices with more success through giving a higher priority to the control of domestic credit. As noted in Chapter 11, their monetary aggregates were out of control, partly owing to excessive government requirements, fixed exchange rates and then the transition to a 'dirty' float.

SPECIFIC INSTRUMENTS OF CREDIT CONTROL.

General Controls.

Open-market Operations: Open-market operations involve the buying and selling of Government securities to influence the money supply and liquidity of the system. If the Reserve Bank were to buy Government stock from the private non-banking sector, this would increase their cash holdings and subsequently increase the cash reserves of the banking sector with obvious repercussions on their ability to 'manufacture' credit. Should the purchase of securities be transacted with financial institutions this would directly augment their cash reserves. If long-term Government securities were exchanged for cash, the impact on liquidity would be even greater than if the sale involved short-term stock. (This aspect will be covered more fully under debt management policy.) The authorities could pursue a tight monetary policy via open-market sales of Government securities. This would affect the financial environment in a similar, but opposite, direction to that described above.

Traditional open-market operations have not been fully utilised in South Africa. The Franzsen Commission felt this state of affairs to be "a serious shortcoming in the existing instruments of monetary control." (14) This view is heartily endorsed as open-market operations can be speedily employed, they are effective in that they imply minimal distortions to the normal operation of market forces and thus financial institutions would not be continuously seeking to by-pass this control.

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(14) Franzsen Commission (Third Report) paragraph 674.

This shortcoming in the array of monetary controls stems from a number of factors, probably the most important being the authorities' concern for the relative stability in the structure of interest rates. The act of pursuing open-market operations to any significant degree implies the acceptance of a flexible interest rate pattern - institutions and individuals must be induced to buy and sell by attractive prices. Besides any feelings as to the appropriateness of certain levels of interest rates, the presence of fluctuating interest rates would complicate the financing operations of the Government. Furthermore, the Reserve Bank did not possess a large portfolio of Government stocks - it was only in 1961 that the Reserve Bank Act was amended to allow the Bank to purchase an unlimited amount of Government securities from persons other than the Treasury (15). Since then, however, inflationary pressures have prevented the Bank from utilising this amendment to any degree. The success of open-market operations depends on the interest shown by the private sector, individuals and institutions, in the secondary market for Government paper (Treasury bills and Government securities). This market, however, particularly for the longer-term assets, is not well-developed in South Africa. But, as mentioned above, the development of this market has been hampered by the authorities' interest rate policy as there has been little incentive for specialist brokers to operate in this sphere.

Loans for Stabilization Purposes: In terms of section 3 of the General Loans Act of 1961, the Treasury was permitted to borrow in excess of the amount required to finance Government expenditure which had been authorised by Parliament (taking due cognisance of the credit balance on Loan Account.) This 'excess' borrowing was not, however, to exceed R60 million.

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(15) In 1969 the Reserve Bank was authorised to issue its own stock of negotiable instruments.

Owing to this limitation, the Treasury was not able to reduce liquidity to desired levels during the early sixties. As a result, the Reserve Bank had to use its portfolio of Government stock to control money market conditions. As noted above, the Reserve Bank's portfolio of Government stock was not large enough to permit the pursuit of effective open-market operations and thus the Government's borrowing powers were extended in 1964. The Treasury is now authorised to borrow any amount deemed necessary by the Minister of Finance, in consultation with the Reserve Bank, to achieve the desired monetary conditions. This extra amount may be borrowed provided that it is sterilised in the Stabilization Account with the Reserve Bank. Should the need arise and monetary conditions permit, the balance on the Stabilization Account may be transferred to the Loan Account upon the authority of Parliament.

Since 1965, use has been made of the so-called 'Tap Treasury Bills' to remove excess liquidity.

In summary then, the full potential of open-market operations has not yet been exploited in South Africa partly owing to the degree of organisation and sophistication in financial markets and partly owing to views over appropriate interest-rate policies. The South African authorities have, therefore, adopted new methods of regulating the availability of credit.

Cash Reserves: The commercial banks have been required to maintain cash reserves with the Reserve Bank since 1921. As from 1965 all monetary banking institutions (16) have been required to hold some percentage of their liabilities in the form of cash reserves with the Reserve Bank. It was only in 1968 that supplementary cash requirements were applied to the monetary banks as a special

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(16) Excepting the Post Office Savings Bank, the Reserve Bank, the Industrial Development Corporation, the Public Debt Commissions, the NFC and the building societies.

monetary measure - they were instituted by virtue of powers conferred upon the Bank in terms of a Government proclamation issued in 1967.

> "A further step to prevent an undue easing of the money market was taken towards the end of April, when the Reserve Bank instructed all monetary banks to maintain with it from the end of May not only the normal reserve balance equal to 8 per cent of their short-term liabilites to the public but also (1) an additional balance equal to 12 per cent of the increase in these liabilities after the end of March 1968 and (2) special deposits with the National Finance Corporation equal to 20 per cent of this measure." (17)

And as from 1st November, 1972, the authorities were able to employ variable cash reserves in conjunction with variable liquid asset requirements in their attempts to control the level of domestic credit.

A few points, concerning the use of variable reserve requirements, demand attention and are mentioned below. In the first instance banks were required to hold reserves even if it were not necessary for them to do so to safeguard their own liquidity. Compulsory reserves above a bank's liquidity requirements are, in effect, a tax on financial institutions as they could employ these funds in more profitable outlets. Secondly, the monetary authorities frequently decide on reserve requirements in the light of the banks' holdings of 'excess liquid assets' - that is, they view these holdings as an indicator of the credit-creating capacity of banks. It must be realised, however, that this excess liquidity might be voluntarily held, the banks' precautionary balances may be greater than the stipulated requirements. It is interesting to note the feelings of the Hunt Commission (18) in respect of reserve requirements:

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(17) SARB Quarterly Bulletin June, 1968 No 88 p 13.
(18) Hunt Commission. "The Report of the President's Commission on Financial Structure & Regulation." (U.S. Government Printing Office, Washington, 1971.) Hereafter referred to as the Hunt Commission.

> "the importance of required reserves has been seen in their role in implementing monetary policy. Given the aggregate of reserves in the system, increases in the level of required reserves restrict bank lending and the amount of deposits banks can create. Reductions in reserve requirements produce less restrictive monetary policy. The Federal Reserve, at its discretion, can have the same effects on bank reserves by purchases and sales of government obligations. Purchases permit monetary expansion; sales (or run-offs of maturing issues held by the central bank) force contraction of the money supply. Even without required reserves, these effects would occur from sales and purchases by the central bank. So long as a reasonably stable proportion of deposits are held by banks for clearing and transactions purposes, reserve requirements are unnecessary for open market operations to control the monetary base effectively. (page 66)
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> ... In certain cyclical conditions the Commission believes discretionary powers for the Board of Governors of the Federal Reserve System are useful. But it also agrees that gradual reductions in the level of reserve requirements is the appropriate policy to pursue." (page 68)

Full agreement is accorded with these views. Open-market operations with the back door of the central bank closed (that is, implying accommodation at restrictive penal rates), makes the use of cash reserves a superfluous instrument designed to control credit extension assuming that the banks hold a reasonably stable proportion of reserves to liabilities.

Variable Liquid Asset Requirements: According to Dr M.H. de Kock, former governor of the Reserve Bank, variable reserve requirements, in effect variable liquid asset requirements, were adopted in South Africa in 1956 to supplement the open-market operations, limited by market sophistication, and to reinforce moral suasion exerted on the banking system. He stated the advantages of this method of control to be:

> "firstly, it is a method which has a direct and immediate impact upon the lending capacity of the commercial banks and can, for example, be used promptly to counteract the effect thereon of a sudden and substantial inflow of foreign capital or of an unavoidable creation of central bank credit resulting from open-market operations or direct subscriptions to public loans or in other ways; secondly, it can be applied in any country whether it has broad and active financial markets or not, and it lends itself to modifications and adaptations to suit different circumstances of different countries at different times; and thirdly, it is capable of achieving a great deal in the

desired direction without frequent or severe changes in interest rates." (19)

Furthermore, with stipulated minimum liquid asset ratios, should banks decrease their 'excess' liquidity through increased lending operations, the central bank would have a better idea of the banks' course of action as they approached the liquidity constraints, than if there were no required asset ratios.

In the Banks Act of 1965 variable liquid asset requirements were established as the core of monetary control measures. It soon became apparent, however, that even increasing the asset ratios up to their legal maxima would not have the desired effect on the banks' lending operations to the private sector, and credit ceilings were imposed toward the end of 1965.

The authorities have attributed the failure of this monetary control variable to curb credit extensions to the private sector to many factors. These factors are mentioned below. But the fundamental factor, emphasised by Newlyn and Kantor (20), is that if you do not control the supply of cash (see "Control of the Money Supply" above) which is also a liquid asset, then there is not much that variations in liquid asset requirements can do for you. Other factors that do add to the explanation of the failure of this instrument are as follows: the authorities did not control the supply of assets that ranked as "liquid assets" (defined later in this chapter), nor could they control the

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(19) De Kock, M.H. "The Present Status of Monetary Policy." SAJE 1957 Vol 25 p 165.

(20) Newlyn, W.T. op cit pp 192 - 201; Kantor, B. "The Money Supply and The Inflationary Process." op cit pp 314 - 329.

share going to financial institutions. When the minima requirements were raised, they were frequently met by increased credit extended to the public sector. And if, for example, a bank purchased Treasury bills to augment its supply of "liquid assets", and the Government spent the proceeds of that sale, this would lead to an expansion of deposits in exactly the same way as if the bank had extended credit to the private sector; the Franzsen Commission made a telling point by advocating that the legislator should be more clear as to what he wished to achieve through stipulating liquid asset ratios;

> "In the present Banks Act (1965) changes in the liquid asset requirements are the measures employed for purposes of monetary control because the requirements in connection with cash reserves are unalterable at present. It has also been found in practice that certain borrowers in the private sector wished to have their securities declared as liquid assets because this would enable them to borrow at lower rates of interest in the money market. If liquid asset requirements are to serve as an effective policy measure, however, then other aims should be partly or wholly set aside." (21)

and finally it was felt that, owing to the state of liquidity, the commercial banks could easily comply with the new requirements.

The authorities have not controlled the supply of cash, and thus liquid asset requirements could not have been a sufficient condition for monetary control. Nor are they necessary if open-market operations or variable cash reserves are effectively employed. Furthermore, they have negative side-effects worth noting. In the first instance, large amounts of money have been tied up in these liquid assets and, as these assets represent particular types of lending, this does have important implications for the development of new instruments of finance and, for that matter, of financial markets. Secondly, in so far as the required reserve holdings are greater than that which a bank would keep

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(21) Franzsen Commission (Third Report) paragraph 608.

Voluntarily, this would affect the profitability of its operations as the bank would be required to invest that added portion of its funds in low interest-bearing assets.

The Bank of England experienced similar difficulties in relying on liquid asset requirements to control credit extension and also transferred their attention to direct controls over credit to the private sector, rather than restrict the total volume of credit at its source. As has been noted, the British monetary authorities have recently changed their tactics and intend allowing greater freedom to interest rate movements, promoting competition within the financial sector, and giving greater attention to movements in the monetary aggregates.

Recent amendments to the Banks Act in South Africa, effective from the 1st November, 1972, made provision for the continued and more stringent use of variable reserve requirements. Thus it seems that existing methods of monetary control will be maintained and, therefore, little further success can be expected from liquid asset ratios in the absence of effective control of the cash base.

Moral Suasion: In the fifties moral suasion did not always produce a satisfactory result, despite the fact that the banking scene was dominated by four commercial banks. Since the sixties, moral suasion, as far as the authorities are concerned, has become increasingly difficult to employ successfully as the financial scene has changed considerably. There are now many more bankers to persuade to toe the line and thus moral suasion has not been required to perform a crucial role in monetary policy. Banks have, however, frequently been requested to curtail credit extended to certain borrowers, for example, to speculators and importers, or for non-essential purposes. The effectiveness of these measures is doubtful as the implementation

of selective credit control is generally inefficient and, in any event, these directives are not legally enforcible.

Selective Controls.

Selective controls may be divided up into measures taken to restrict credit for certain transactions, for example, the importation of consumer goods or hire-purchase sales, and those policies employed to encourage and safeguard the financing of certain favoured activities such as farming or exporting.

> "Such selective controls have come to be adopted not only because, in some countries, there is little or no scope for open-market and funding operations or for an effective discount-rate policy, but also because the methods of general credit control operate primarily on the aggregate demand for and supply of credit and cannot, therefore, ensure an appropriate distribution of the available credit between essential and non-essential activities." (22)

Excluding consideration of hire-purchase controls, which is dealt with below, there are many instances where the authorities guide the allocation of credit. The pressures exerted on the banks to curtail credit to importers and speculators have been commented upon. It remains to review other methods which have been employed to channel credit in the direction the authorities deem desirable, for example: concessions in respect of the credit ceiling were granted to permit easier access to funds, in particular, for small businesses and farmers; and in defining 'liquid assets' the authorities encouraged certain forms of lending operations to ensure favoured borrowers a relatively cheap source of funds. This redirection of credit flows is unlikely to have exerted any significant

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(22) De Kock, M.H. op cit p 166.

affect on the stability of the economy. They were employed to change the allocation of resources.

Hire-purchase Controls: During the fifties the Reserve Bank was able to control the credit extended for hire-purchase transactions through its control of the four major commercial banks from whom the hire-purchase institutions obtained their funds. This form of credit control became progressively more difficult as the commercial banks themselves diversified into financing hire-purchase transactions, and the hire-purchase institutions became deposit-receiving institutions.

To use hire-purchase controls as an anti-inflationary measure, one must presume that the level of savings will be increased, that is, frustrated buyers will not turn to other goods, and the funds normally used to finance these transactions will not be employed in some other way. The South African authority, the Minister of Economic Affairs, has had basically no experience in judging the impact of adjustments to hire-purchase regulations as it was only early in the seventies that hire-purchase controls were tightened and later relaxed in certain respects. Both actions seem to have been rather arbitrarily determined. It is feasible to look to evidence in the United Kingdom, where hire-purchase controls have been more frequently employed as stabilization measures, to see what impacts can be expected.

The views here are largely summarised from the Radcliffe Report (paragraph 466) and from Mr Bain (23). When hire-purchase controls are tightened, usually the minimum down-payment is increased and the maximum repayment period is

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(23) Bain, A.D. "The Control of the Money Supply." (C. Nicholls & Co Ltd, Manchester, 1971.)

shortened. The former is likely to decrease demand as more must be saved before the consumer can acquire the goods. The initial impact may be substantial in that sector, but as more is saved so the effect will wear off. Similarly, if the repayment period is decreased consumers may postpone their purchase until they can afford the instalments, or they will buy cheaper or fewer goods. Because the repayment period is shorter, the purchasers may be able to re-enter the market sooner. In summary then, despite the fact that the desired effect on saving is not assured, as many, frustrated in their attempts to buy consumer durables, may purchase other commodities, there would seem likely to be some favourable impact on saving in the short-run. The advantages of acting quickly and being useful reflationary measures have also been attributed to this form of credit control.

The major disadvantage associated with this measure is that its impact falls on certain narrow sectors. The whole need for this measure in the package of stabilization measures stems solely from the authorities' inability to control the general level of demand. The dislocations caused to the various 'chosen' sectors may be permanent - their long range planning is rendered inaccurate and the change in sales volume may lead to increasing unit costs. The tightening of hire-purchase regulations is also likely to discriminate against lower income groups - borrowers who have few financial assets and are, therefore, in a poor position to borrow in other ways. A further point to be considered is that households generally use hire-purchase facilities to buy consumer durables. These durables may be of a labour-saving nature and thus improve the quality of the household's existence.

Direct/Specific Controls.

Direct controls are, as the name implies, controls that disregard market forces and stipulate that some variable may not be above or below a prescribed value. In the short-run, there are the inevitable distortions in the allocation of resources, and inefficiencies arising from these controls. In the longer-run, the distortions are still present and manifest themselves in the manner in which these controls tend to be by-passed. General controls, on the other hand, seek to achieve their objectives, as do any forms of control, through intervention in the normal operation of the economy, but in a manner which uses market forces to attain their goals. There is thus a general presumption in favour of general controls as opposed to either direct or selective controls.

Credit Ceilings: Since March, 1965 the authorities have supplemented the powers, which accrued to them under the Banks Act of 1965, by the use of direct instructions to the banking sector. The most important type of direct instruction to the banks took the form of credit ceilings. (Deposit rate control is dealt with below.)

The ceiling was first instituted in October, 1965 when the authorities requested the monetary banking institutions to restrict, as from the 31st March, 1966, their discounts and advances to the private sector, excluding the Land Bank, to the level of such credit on the 31st March, 1965. The liquidity prevalent in the economy, partly explained by inflows of foreign capital and the resort to inflationary sources of finance by the Government sector, had rendered the existing methods of credit control, the most important being liquid asset requirements, relatively impotent. In any event, as has been suggested, liquid asset requirements are neither a sufficient nor a necessary condition for monetary control.

The level of the ceiling has been altered and it was extended to cover certain investments in the private sector. This extension does illustrate the point that direct controls do tend to be side-stepped; non-monetary banks were placed under credit ceilings in August, 1970. Despite the fact that the authorities had frequently expressed the view that they regarded the ceilings as a temporary but necessary measure, the ceiling form of credit control was only rescinded as from the 1st November, 1972.

TABLE 3.

Monetary Banking Sector's

(R millions)

Year-end figures	Claims on the Private Sector	% Increase	Credit to the Government Sector	% Increase.
1965	2 105,7		701,3	
1966	2 209,8	4,9	977,6	39,4
1967	2 484,4	12,4	991,8	1,5
1968	2 765,0	11,3	1 134,9	14,4
1969	3 252,6	17,6	1 199,1	5,7
1970	3 614,2	11,1	1 254,6	4,6
1971	3 858,1	6,7	1 341,0	6,9
1972 Oct.	4 114,4	6,6	1 649,8	23,0

Source: SARB Quarterly Bulletin June, 1973 No 108.

As may be readily seen from Table 3, the monetary banking sector's claims on the private sector were certainly not held static. The Franzsen Commission attributes these increases to the lenient manner in which the ceilings were implemented (para 597), but it is possible that the ceilings were not as effective as they were intended to be. From December, 1965 through to October, 1972 claims on the private sector increased by some 95 per cent.

It is interesting to note, particularly since the ceilings were imposed to contain credit to the private sector, that through the same time period as above, credit to the Government sector increased by 135 per cent. It would appear, therefore, that credit ceilings were not successful as an anti-inflationary instrument and that funds were re-directed to the public sector. In fact Kantor has expressed the view that the "prime purpose of monetary policy in South Africa especially since the 1965 Bank and Building Society Acts and the amendments to other acts relating to Insurance Companies and Pension Funds has been to direct the plan of savings to approved borrowers. By which one means of course towards the Central Government, the Public Corporations, the Land Bank, the Local Authorities and by no means least the Building Societies." (24)

A credit ceiling does, however, have the merit of limiting credit expansion at one of its main sources, at least temporarily. It might well have a legitimate place amongst monetary measures if it is employed occasionally and for a short time period, when other more general instruments of control might cause interest rates to fluctuate to politically unacceptable levels. The Franzsen Commission did, in fact, recommend "that the banking legislation should be amended by the insertion of a section granting the Reserve Bank the power to issue credit directives to banking institutions and also to lay down penalties when its directives are not complied with." (25)

The Governor of the Bank of England expressed his views as follows:

> "The advantages of ceiling controls are clear enough. They are unequivocal, both for the banks and their customers; their coverage can be extended in equity to competing financial institutions; and they work quickly. But their drawbacks are no less obvious, notably

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(24) Kantor, B. A comment on A.B. Dickman's paper "The Financing of Industrial Development in South Africa." when it was presented to the Biennial Conference of the Economic Society of S.A. in October, 1973.

(25) Franzsen Commission (Third Report) paragraph 599. (italics in the original.)

in checking competition and innovation within the banking sector and encouraging the diversion of credit flows through other sectors." (26)

The drawbacks of credit ceilings deserve special mention particularly as the recent trend in monetary policy in both Britain and the United States has been to encourage monetary management that will allow financial institutions to evolve and adapt efficiently to cope better with tomorrow's needs. Factors to be considered before placing a ceiling on credit are as follows:

(i) They are undoubtedly damaging to the competitive strength of the banking industry. The efficient have been prevented from growing and the less efficient have been aided to maintain the level of their business.

(ii) They encourage the diversification of the banking industry which obviously will affect the velocity of circulation of money. This artificial spur to diversify may imply that funds are not being most efficiently utilised. If the diversification of the banking industry is not deemed desirable, then a situation of controls breeding more controls is easily envisaged.

(iii) Concessions were announced to various sectors, for example exporters, to ensure them an adequate supply of funds. This naturally reduces the effectiveness of the ceiling to control credit expansion. Should young and dynamic firms not receive concessions they may well be penalised vis-a-vis the more established larger companies whose rate of growth is relatively slower. Evidence stemming from the work of Ms J. Nattrass (27), however, indicates that the indirect

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(26) Governor of the Bank of England. "Monetary Management in the United Kingdom." BoE Quarterly Bulletin March, 1971 Vol 11 No 1 p 41.

(27) Nattrass, J. "The Effect of Credit Control upon the Financing of Business." SAJE 1972 Vol 40 pp 84 - 93.

effect of monetary measures on overall demand, rather than the direct effect of the credit squeeze, plus other factors such as constraints on the utilisation of labour, have determined the growth of small firms.

(iv) It is not easy for the banks to keep the level of credit within bounds owing to the overdraft system of credit extension. Furthermore, greater use is likely to be made of overdraft facilities once a credit squeeze is imposed.

(v) The existence of a ceiling will tend to exert upward pressure on interest rates, and encourage grey market activities.

(vi) The Reserve Bank is entailed with the administration of this policy measure. This would involve the collection and inspection of data at short intervals, and the decision-making as to when and by how much the ceiling should be raised or lowered, to whom concessions should be granted and the magnitude of such concessions.

Measures Aimed at the Cost of Credit.

The importance attached to a preferred interest rate structure has already been discussed. The authorities do adjust the level of interest rates over which they have control, but the adjustments tend to follow market pressures rather than lead the market. Basically, interest rates have been changed too little and too late to be successfully employed as stabilization measures. Mention remains to be made of deposit rate controls and Bank rate adjustments - the use of both these measures have important implications for the stability of the economy.

Deposit Rate Controls: On the 22nd March, 1965 deposit rate controls became effective for all institutions falling under the Banks Act and the Building Societies Act. A proclamation had been issued by the Reserve Bank, in terms of the powers conferred on it under the Currency and Exchanges Act of 1933, whereby maximum rates of interest were stipulated on deposits and shares of varying maturities.

The Governor of the Reserve Bank commented, in his discussion of the appropriateness of deposit rate controls, that he would not wish to debate the validity of the assumption that free market forces would best allocate funds and determine the most appropriate interest rate structure. But he would question whether in fact these forces were operative in the economy at that time. Furthermore, he mentioned that it was unrealistic to ignore the social and political factors which were important determinants of economic policy. He concluded his justification of these controls with the statement that the Reserve Bank regarded their imposition as a temporary measure.

J.H. Meijer (28) explains the institution of deposit rate control by referring to the competition for funds pushing up deposit rates along with lending rates. From the authorities' viewpoint this was especially undesirable in respect of mortgage rates. Furthermore, commercial banks and building societies were more constrained in their ability to raise lending rates and thus deposit rates than were other 'monetary banks'. He felt that the reversal in the flow of funds from hire-purchase, savings and general banks, who lost R98 million of fixed and notice deposits between March, 1965 and March, 1966 as against an increase of R265 million during the preceding year, could be explained to some extent by the imposition of these interest rate controls.

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(28) Meijer, J.H. "Banking in South Africa and the Banking Legislation of 1965." Canadian Banker Winter, 1966 pp 90 - 104.

Interest rate control was rescinded on the 8th July, 1966 as part of a new policy-mix to extinguish the inflationary pressures.

In effect, deposit rate controls were applied in the course of 1969 when the banks and building societies were frequently requested to maintain a maximum rate of 7 per cent on deposits. This pressure was exerted "to prevent the rising costs of funds to the banks and building societies from being reflected in higher bank lending and building socieity mortgage rates." (29) This moral suasion was withdrawn when the authorities announced, on the 12th August, 1970, the principle of paying subsidies to privileged borrowers rather than to keep down the entire interest rate structure. The Minister of Finance commented as follows on deposit rate controls:

> "Controls on deposit rates, in so far as they are effective, prevent interest rates from fulfilling their function, which is to bring the demand for and supply of loan funds into equilibrium through, where necessary, stimulating saving and discouraging investment. They distort the flow of funds in the money and capital markets so that funds tend to flow into uncontrolled investment channels or in directions where the income on investment takes a form other than interest.
>
> They stimulate the growth of the so-called 'grey market' where substantially higher interest rates are offered.
>
> Experience in the past, and at present, furthermore shows that effective control even of the deposit rates of financial institutions, is very difficult, since the control is often evaded by the payment of commission or other devices." (30)

In view of the above quote, the fact that deposit rate controls were re-imposed on the 29th March, 1972 is somewhat astounding. They were imposed to prevent competition for funds from bidding up deposit rates and thence lending rates, in particular, mortgage rates. The fact that the credit ceilings were raised at the time was believed likely to cause increased competition for deposits.

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(29) SARB Annual Economic Report 1970 p 30.
(30) Minister of Finance in the Budget Speech delivered on the 12th August, 1970 p 6.

> "Among the institutions which should benefit substantially from these controls are the building societies. The societies have already received exceptionally favourable treatment from the authorities in many ways, and I trust that they will find it possible to fulfil adequately their function of assisting the ordinary man to build or acquire a house." (31)

The shortcomings of deposit rate controls were outlined above in the extract from the Minister of Finance's Budget Speech of August, 1970. It would seem, therefore, that the South African authorities should pay heed to the Hunt Commission's recommendations as they had advocated that "except on a standby basis, all controls on rates paid to depositors be eliminated." (32) Even this emergency power was to be removed after a 10 year period.

In particular, they recommended that institutions should not be forced by regulations to specialise, but should be allowed to shoose freely their scope of operations.

> "The commission recommends sweeping changes in the portfolio restrictions of financial institutions. The recommendations amount to a virtual removal of both geographic and asset class restrictions." (33)

If a financial institution should wish to specialise, it must recognise that, after some transitional period, the protective regulations accompanying the enforced specialisation of the past would cease to exist. Increased competition could lead to improved efficiency and lower lending prices as well as the convenience of one-stop banking. The Commission also favoured the payment of subsidies directly to the consumer when market forces did not satisfy social goals.

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(31) Minister of Finance in the Budget Speech delivered on the 29th March, 1972 p 5.
(32) Hunt Commission p 23.
(33) Hunt Commission p 31.

Subsidies would avoid the 'warping of financial institutions' and would be directly measurable.

The importance attached to the level of mortgage rates in South Africa is readily apparent from the quotations earlier in this section. It is, therefore, of particular interest to note that the Hunt Commission recommended that:

> "the rates on mortgages, both government guaranteed and conventional, be determined in the market place. Accordingly, it recommends that all ceilings on interest rates be removed. Additionally, it recommends that a standard variable rate mortgage be established. Finally, it recommends an extension and improvement of the secondary market for mortgages." (34)

The improvement of the secondary market for mortgages is designed to improve their liquidity and, together with the variable interest rate mortgage recommendation, are designed to boost the share that mortgages make up of the total asset portfolio of financial institutions. The Commission advocated, in the light of this latter recommendation, that the mortgagor should be offered the option periodically of continuing the arrangement or arranging new financing with no penalty incurred.

Bank Rate: Bank rate represents the rate at which the Reserve Bank usually discounts Treasury bills, Land Bank bills and bank acceptances from certain financial institutions, or grants advances secured by Government stock. Changes in Bank rate effect changes in the borrowing and lending rates throughout the economy as the commercial banks' minimum lending rate moves with the Bank rate. Alterations in Bank rate also affect the Treasury bill rate, the call rate and the rate on short-term Government stock. With the development and increasing significance of financial institutions other than commercial banks, the effects

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(34) Hunt Commission p 77.

of Bank rate changes have been somewhat less pervasive.

A factor affecting the frequency of changes in Bank rate in South Africa has been the concern for the nominal level of interest rates, particularly building societies' mortgage rate. The building societies compete with commercial banks for funds. They will, therefore, wish to increase their deposit rates to maintain this competitive position should Bank rate be raised, and strong upward pressure on mortgage rates will be exerted through this increased cost of acquiring funds. Thus in comparison to the use of Bank rate alterations as a stabilization measure in the United Kingdom (35), for example, South Africa's Bank rate has been far less readily changed. In fact, between 1960 and 1972 Bank rate has been changed on 12 occasions. On ten of these occasions Bank rate was increased by $\frac{1}{2}$ per cent. Even since August, 1970, when it was announced that subsidies would be paid to certain borrowers to offset the increased costs of borrowing, Bank rate has been changed only twice.

As has been suggested, the monetary authorities have not frequently used severe penal rates for discounting 'liquid assets' so that they might obviate the necessity of meeting the resulting increased demand on Reserve Bank credit, and that they might maintain relative stability in the interest rate structure.

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(35) The comparison is not altogether valid owing to London's position as one of the financial centres of the world. Bank rate changes in the U.K. have been frequently made to influence capital flows. In South Africa, the exchange controls obviate, to a large extent, the necessity of using Bank rate changes in this respect - the outflow of capital is controlled while the inflow is more likely to be in terms of direct investment where the growth potential of the economy is likely to exert a more significant influence on the decision to invest than would a high interest rate structure.

Financing of Government Expenditure.

This section is included under monetary policy as the manner in which the public sector finances its expenditure affects, and is affected by, the monetary environment. To finance its expenditure, the Government may either tax, print money, or borrow, or employ some combination of these three methods. Government expenditure has been rising for some time (see graph on page 109a), and it has become increasingly difficult to finance this expenditure from non-inflationary sources, that is, from genuine savings, given the preferred interest rate structure. It is never popular, nor necessarily desirable (see discussion of fiscal instruments), for governments to raise taxation to meet the increased needs of the Exchequer. Moreover, given the presence of inflationary pressures, the authorities are obviously loath to finance Government expenditure by printing money. Before examining the impact of borrowing operations generally, comment should be made on the several saving campaigns launched recently. By raising the level of domestic saving the Government has hoped, on occasions, to increase its ability to finance its expenditure in a manner which does not contribute to the inflationary pressures in the economy. But as Dr De Villiers Graaff (36) has stated

> "The money invested in these (the Treasury's issue of tax-free) bonds would almost certainly not have been spent on current output. Moreover, the attraction of their tax-exempt return is precisely to people who want a larger after-tax income to maintain or improve their standard of living. I suspect, therefore, that selling the bonds has had no direct effect on spending, and that paying the interest will in due course add to the pressure of demand for current output. Their only redeeming feature (in the present inflationary situation) is that their issue reduces private liquidity."

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(36) De Villiers Graaff, J. "The National Debt." SAJE 1969 Vol 37 p 128.

Furthermore, it is suggested that the macro-economic effects of the Savings certificate, designed to encourage the small saver, are minimal.

What is important in Government borrowing operations is the kind of securities sold as different maturity-mixes of assets issued will affect aggregate demand differently.

Following Professor Culbertson (37) a comparison is made between two extreme sets of consequences of borrowing short-term and long-term. Borrowing short-term will tend to:

(i) promote lower interest rates in the long-term debt used to finance most private investment expenditures which are likely to be responsive to interest rate changes: that is, a condition will be created in the capital market more receptive to new private borrowing;

(ii) the resulting capital gains engendered promote optimism and provide a means of financing private expenditure;

(iii) since the larger supply of liquid assets are not closely competitive with sensitive private borrowing and will be held partly in place of cash balances, they will not offset these expansive effects;

(iv) moreover, assuming obstacles in the way of credit ceilings, an increased supply of 'liquid assets' to the banks implies greater potential for credit creation. The potential effect on liquidity is even greater where the central bank supports the price of the debt it has created by issuing more money.

Borrowing long-term, on the other hand, increases the cost and reduces the availability of funds for private sector borrowing in the capital market.

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(37) Culbertson, J.M. "Full Employment or Stagnation." (McGraw-Hill Book Co , 1964.)

The resulting reduction in private investment expenditure offsets the expansionary impact of Government expenditure.

Since the early sixties the authorities have been wary of inflationary pressures in the economy. Government expenditure should, therefore, have been financed primarily through the sale of long-term securities, but the returns on long-term securities have generally been lower than on other assets of similar risk and maturity.

TABLE 4.

Long-Term Interest Rates On Fixed Interest Bearing Investments.

(Percentages.)

Date End of:	Yields on long-term Government stock. (4)	Yields on new issues. (1) Company stock, debentures, and notes.	Public (2) Corporations.	Municipal (2) (3) stock.
1965	6,000	7,500	6,659	6,750
1966	6,500	7,500	7,028	7,204
1967	6,500	8,500	7,273	7,248
1968	6,500	8,500	7,223	7,200
1969	6,500	8,500	7,302	7,250
1970	7,750	10,000	8,787	8,810
1971	8,500	10,250	9,280	9,280
1972	8,125	9,500	8,390	8,500

Notes: (1) Including broker's commission.
(2) Securities with the longest maturity at the particular date.
(3) Only the five largest municipalities.
(4) As quoted in the SARB's pattern of rates for transactions in Government stock.

Source: SARB Quarterly Bulletin June, 1973 No 108.

Thus voluntary demand for these securities has been relatively low and the authorities have been 'forced' to create and extend the so-called 'captive'

market to ensure greater response to an issue of public sector securities. They chose this alternative rather than increase the returns on Government stock enough to make them an attractive form of investment.

Two groups of financial institutions are required to hold public sector stock in their portfolios. According to the Franzsen Commission, the reasons for the application of portfolio requirements to deposit-receiving institutions are considerations of "liquidity and solvability" (38); and as regards the second group, savings institutions such as insurers and pension funds, "the original intention of the legislature in respect of prescribed investments in state and other issues of the public sector was that policy-owners and future pensioners should also be protected." (39) A translation from Dr Franzsen's article "Die Beheer van die Staatskuld" (40), provides a further justification for the extension of the captive market. He felt that as long-term insurers and pension funds have a definite interest in the maintenance of price stability, they should subscribe more towards Government securities to ensure that use is not made of inflationary methods of financing Government expenditure. It would seem advisable, however, that the Government finance its expenditure completely through taxation and genuine borrowing rather than create a captive market. (The implications of a captive market are discussed below.) Insurance companies are surely competent to manage their portfolios successfully whatever the rate of inflation and there is no justification for calling on them to make involuntary contributions toward the public sector at a comparatively low rate of return on their funds.

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(38) Franzsen Commission (Third Report) paragraph 228.
(39) Franzsen Commission (Third Report) paragraph 228.
(40) Printed in "Die Ekonomiese Politiek van Suid Afrika." (HAUM, Cape Town, 1967.) Edited by Lombard, J.A. p 80.

TABLE 5.

Major Ownership of Domestic Marketable Stock Debt of Central Government.

(R millions)

SHORT - TERM (1)

End of:	PDC	Banking Sector (2)	Building Societies	Insurers and Private Pension Funds	Total
1960	32,1	139,4	5,4	2,6	200,9
1961	25,9	137,0	4,2	7,3	193,8
1962	61,7	163,9	8,2	9,2	266,1
1963	126,9	244,5	15,4	18,6	440,8
1964	169,4	300,3	33,3	14,2	554,9
1965	148,1	372,1	48,0	7,0	607,5
1966	123,9	550,3	75,6	8,5	797,1
1967	135,0	627,2	80,0	11,5	899,4
1968	103,8	747,1	83,3	8,3	987,7
1969	6,2	760,2	84,9	3,7	891,4
1970	17,1	785,5	94,6	4,0	932,2
1971	29,5	845,8	98,2	5,9	1 033,4
1972	23,8	963,2	123,8	4,3	1 185,3

LONG - TERM

				Unit Trusts		
1960	1 013,1	229,0	48,6	-	93,3	1 473,5
1961	1 072,8	205,9	39,0	-	96,4	1 524,9
1962	1 192,6	206,2	57,0	-	103,3	1 675,8
1963	1 277,1	152,0	64,4	-	91,3	1 686,5
1964	1 426,0	128,0	53,4	-	84,1	1 783,9
1965	1 621,7	116,5	28,1	-	90,4	1 945,3
1966	1 755,6	144,7	22,6	2,1	154,2	2 197,6
1967	1 968,5	107,1	18,5	4,1	214,7	2 412,3
1968	2 223,8	145,8	24,4	20,4	292,9	2 832,7
1969	2 547,3	121,6	21,1	80,5	369,8	3 260,0
1970	2 722,3	104,9	17,9	54,7	417,6	3 426,7
1971	2 843,2	107,3	17,5	48,7	519,0	3 647,8
1972	2 899,2	268,8	28,4	47,8	756,8	4 263,5

Notes: (1) i.e. with outstanding currency not exceeding 3 years.
(2) SARB, commercial banks, merchant banks, discount houses, and other banking institutions of which the monthly average amount of demand deposit liabilities during the preceding calendar year amounted to at least R3 million (up to the end of 1970: R1 million) and of which the monthly average amount of short and medium-term deposit liabilities during the preceding calendar year collectively amounted to at least one-third of the total deposit liabilities of such an institution or at least R30 million.

Source: SARB Quarterly Bulletins December, 1970 and June, 1973 Nos 98 and 108 respectively.

These figures give some indication of the size of the captive market. The use of the Public Debt Commissioners' funds is severely prescribed and thus it is no surprise that during 1970, for example, they owned more than 60 per cent of the domestic marketable Central Government debt.

It was noted above that a reason advanced for the control of financing institutions' portfolios was the desire to protect the depositor and/or the man taking out the pension or insurance policy. It is of interest to note the Hunt Commission's view on this desire to protect the consumer. They maintained that, if portfolio requirements were instituted to control the riskiness of financial institutions and thus to protect the uninformed consumer, this could be achieved better through deposit insurance where those institutions with high risk portfolios would be required to pay loaded premiums. Furthermore, as has already been mentioned, the Hunt Commission did recommend a considerable increase in the leeway of financial institutions to manage their own portfolios.

It is worth quoting the Hunt Commission's general views on a captive market:

> "A suggestion sometimes made for financing socially desirable objectives is to regulate directly the portfolios of financial institutions. This shifts real resources by altering demand among types of debt instruments and imposes a hidden tax on the depositors of the affected institutions... The Commission favors the use of direct subsidies or tax credits because they are less

> inflationary, do not warp financial institutions, and bring market forces into play in pursuing the nation 's goals." (41)

Viewed in this light, the fact that the Franzsen Commission did not recommend the abolition of the captive market is disappointing. They did, however, state that they were against the use of additional forced savings being imposed on certain institutions.

> "Should the government wish to make use of additional forced saving, it would be more equitable to do so by way of loan levies imposed on all taxpayers." (42)

They also advocated that the practice of quoting rates for Government securities be discontinued and that the Treasury should take greater heed of market rates of return when issuing Government stock. (43)

Perkins (44) maintains that a captive market inhibits the use of the bond market as a channel for monetary policy. He points out that the essence of anti-cyclical policy is to encourage financial institutions, who make up the captive market, to lend more readily to the private sector during a downswing and more to the Government during an expansionary phase, where the proceeds of the loans can be sterilised. This type of policy would require returns on Government securities to be changed appropriately in relation to the returns on the private sector's securities. Where legislation forces financial institutions to hold a greater proportion of public sector securities than would be held in the absence of intervention, these institutions would be unlikely to respond to

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(41) Hunt Commission pp 17 - 18.
(42) Franzsen Commission (Third Report) paragraph 231.
(43) Franzsen Commission (Third Report) paragraph 683.
(44) Perkins, J.O.N. (ed) "Macro-economic Policy A Comparative Study Australia Canada New Zealand South Africa." (George Allen & Unwin Ltd , London, 1972.)

the appeal to lend more to the government sector, whatever the economic situation, unless returns on public sector bonds were raised - then, of course, the captive market dissolves.

TABLE 6.

Marketable Central Government Stock Debt by Unexpired Maturity.

(R millions)

D O M E S T I C

Maturity Intervals.

End of:	Not exceeding 1 year	Exceeding 1 but not 3 years	Exceeding 3 but not 10 years	Exceeding 10 years	Total	Average maturity (months)
1960	126,0	74,9	799,4	674,1	1 674,3	114,6
1961	33,6	160,2	789,8	728,0	1 711,5	118,1
1962	41,3	224,8	726,4	949,4	1 942,0	121,7
1963	48,3	392,5	570,4	1 116,1	2 127,3	120,3
1964	106,0	449,0	545,8	1 238,1	2 338,8	114,4
1965	286,5	321,0	515,9	1 429,4	2 552,8	114,1
1966	162,4	634,7	454,7	1 742,9	2 994,7	128,1
1967	158,5	740,8	395,9	2 016,4	3 311,6	137,7
1968	477,5	510,3	759,0	2 073,6	3 820,4	146,6
1969	263,4	628,0	910,7	2 349,3	4 151,3	158,0
1970	246,9	685,3	1 026,8	2 399,9	4 358,9	154,4
1971	381,1	652,3	1 079,2	2 568,7	4 681,2	152,3
1972	304,1	881,2	1 308,3	2 955,2	5 448,8	159,7

Source: SARB Quarterly Bulletins December, 1970 and June, 1973 Nos 98 and 108 respectively.

Despite the fact that these figures are year-end figures, it is apparent that no marked anti-cyclical debt management policy has been pursued in South Africa.

In conclusion, it has become imperative to finance necessary public sector expenditure from sources which would not add to the inflationary pressures prevalent in the economy. A major step in the right direction would be to offer competitive returns on Government securities. This would facilitate the use of debt management as part of an anti-cyclical policy, and also obviate the necessity for a captive market and thus improve the efficiency and competitiveness of the financial sector. Furthermore, the way would be opened to controlling the level of domestic credit creation.

RECENT DEVELOPMENTS IN LEGISLATION AFFECTING MONETARY POLICY IN ITS PURSUIT OF A STABLE ECONOMY.

In the early fifties the banking sector was dominated by four large commercial banks. The authorities engaged in discount and interest rate policy, open-market operations (to a very limited extent) and moral suasion to achieve their objectives. In 1956 the Reserve Bank Act was amended to allow the authorities to call for supplementary reserves. In effect this new measure took the form of a variable liquid asset requirement, rather than a variable cash reserve, as the commercial banks could meet the increase in their cash requirements by increasing their holdings of certain liquid assets. A further amendment in 1961 allowed the Bank to decrease the commercial banks' minimum cash reserve ratio against their demand deposits to not less than 6 per cent.

In 1964, in terms of the General Loans Act, the monetary authorities were authorised to borrow any amount deemed necessary to achieve a desired financial environment. This was permitted provided that the amount borrowed, in excess of the amount required to finance the deficit on Loan Account, was deposited in the Stabilization Account with the Reserve Bank.

Major Changes Incorporated in the Banks Act of 1965: Early in 1961 the Minister of Finance appointed a Technical Committee to examine the provisions of the Banking and Building Societies Acts.

The new Banks Act came into being on the 1st January, 1965 as far as the commercial banks were concerned, and embodied the recommendations of the Technical Committee. This legislation was made applicable to all banking institutions, the main exceptions being the Post Office Savings Bank, the Reserve Bank, the Industrial Development Corporation, the PDC, the NFC and building societies. The institutions affected by the legislation, other than commercial banks, were allowed a year to adjust to the new requirements.

The new reserve requirements were fixed in terms of the term structure of the liabilities. The cash ratio was set at 8 per cent of the financial institution's short-term liabilities (not applicable to discount houses). The provision for supplementary cash reserves was rescinded. The main operational instrument incorporated in this Act was variable liquid asset requirements. The requirements are given below as they appeared in Act No. 23, 1965:

(1) A banking institution (other than a discount house) shall maintain in the Republic liquid assets amounting to not less than the aggregate of -

(a) 30 per cent of its short-term liabilities to the public in the Republic, other than liabilities under acceptances;

(b) 20 per cent of its medium-term liabilities to the public in the Republic, other than liabilities under acceptances;

(c) 5 per cent of its long-term liabilities to the public in the Republic; and

(d) 10 per cent of its liabilities under acceptances, ...

(3) (a) Whenever the Reserve Bank deems it desirable in the national economic interest, it may with the consent of the Treasury from time to time determine -

(i) that in respect of the institutions of a particular class the percentages mentioned in paragraphs (a) and (b) of sub-section (1) shall be increased to not more than 40 and 30 respectively or decreased to not less than 20 and 10 respectively; or

(ii) that every institution of a particular class shall maintain, in addition to the liquid assets required by sub-section (1), supplementary liquid assets in the Republic at least equal to percentages prescribed by the Reserve Bank, but not exceeding 70 per cent of the amount by which the short-term liabilities to the public, or 80 per cent of the amount by which the medium-term liabilities to the public, payable by the institution in the Republic exceed the amount of such liabilities as at a date determined by the Reserve Bank.

In terms of this Act, the definition of liquid assets was trimmed to encompass fewer assets and became the aggregate amount of -

(a) Reserve Bank notes and subsidiary coin;

(b) credit balances with the Reserve Bank;

(c) deposits withdrawable on demand with the National Finance Corporation;

(d) deposits withdrawable on demand with a banking institution which is required to maintain a reserve balance with the Reserve Bank;

(e) loans to discount houses repayable on demand;

(f) Treasury bills of the Republic;

(g) stock of the Government with a maturity to the latest redemption date of not more than three years;

(h) bills issued by the Land Bank and advances to the said bank, which at the option of the lender, are convertible into bills;

(i) debentures of the Land Bank with a maturity of not more than three years;

(j) acceptances of a banking institution which is required to maintain a reserve balance with the Reserve Bank, not being acceptances of the banking institution concerned itself;

(k) self-liquidating bills or prommissory notes arising out of the movement of goods, with a maturity not exceeding 21 days, or 6 months in the case of agricultural bills, and which are eligible for discount by the Reserve Bank; and

(l) such other assets as the Registrar may by notice in the Gazette approve for the purposes of this definition.

Furthermore, a banking institution (other than a discount house) shall maintain in the Republic prescribed investments of an amount not less than 15 per cent of its liabilities to the public.

'prescribed investments' means the aggregate amount of -

(a) liquid assets;

(b) deposits with any banking institution which is required to maintain a reserve balance with the Reserve Bank, other than deposits ranking as liquid assets;

(c) deposits with a permanent building society whose total assets as at the end of the last preceding quarter amounted to not less than ten million rand;

(d) deposits with a local authority within the Republic;

(e) deposits with the National Finance Corporation and loans to discount houses, other than deposits or loans ranking as liquid assets;

(f) stocks of the Government, other than those ranking as liquid assets;

(g) debentures or stock guaranteed by the Government;

(h) stocks of and loans to any local authority in the Republic;

(i) debentures or stock of the Rand Water Board or the Electricity Supply Commission;

(j) debentures of the Land Bank, other than those ranking as liquid assets; and

(k) such other investments as the Registrar may by notice in the Gazette approve for the purpose of this definition.

Major Changes in the Powers Conferred on the Reserve Bank since the Banks Act of 1965: Early in 1965, using the powers conferred on it through the Currency and Exchanges Act of 1933, the Reserve Bank issued a proclamation laying down maximum rates of interest payable on deposits of varying maturities.

Towards the end of 1965 credit ceilings were implemented initially in the form of formal requests to the banks, but as from 1967 these ceilings were made mandatory in terms of the Currency and Exchanges Act.

Further use of this Act was made in 1968 when supplementary cash reserves were called for as an emergency measure.

In 1969 the Reserve Bank was authorised to issue its own interest bearing stock.

Financial Institutions Amendment Act of 1972: As from the 1st November, 1972, Amendments to the Banks Act of 1965, as contained in sections of the Financial Institutions Amendment Act of 1972, came into effect. These amendments considerably strengthened the arsenal of anti-inflationary weapons at the disposal of the authorities. But whether or not in a desirable direction is debated below and has been touched on in the discussion of liquid asset requirements.

The main changes brought about by this legislation are summarised briefly below:

(1) The Reserve Bank may now increase the minimum liquid asset ratios to 60, 40 and 10 per cent of short, medium and long-term liabilities respectively. Previously the authorities could only call for increases in excess of 10 per cent via the emergency powers embodied in the Currency and Exchanges Act.

Furthermore, the Bank is now authorised to call for supplementary liquid assets not exceeding 70, 50 and 20 per cent of increases in the short, medium and long-term liabilities as from a specified date.

Using these two methods concurrently, the monetary authorities can, if necessary, impose an increase in liquid asset requirements of up to 10 per cent per month in respect of short and medium-term liabilities and 5 per cent in respect of long-term liabilities. Prior to these amendments the monthly increase in respect of short and medium-term liabilities was limited to 4 per cent.

(2) Provision was made for a variable cash reserve requirement ranging from 8 to 38 per cent against short-term liabilities and from 0 to 20 per cent against medium-term liabilities. Furthermore, the Bank can call for supplementary cash reserves equivalent to 70 and 50 per cent of an increase in banking institutions' short and medium-term liabilities after a specific date.

(3) The requirements relating to the asset mix were made more stringent to avoid unduly large proportions of liquid asset requirements being made up from holdings of bankers' acceptances, trade bills, agricultural bills (other than Land Bank bills) and promissory notes.

(4) The definition of 'prescribed instruments' was narrowed and will have the effect of expanding the 'captive market'.

It is apparent that these amendments were the logical extension of the powers provided for under the 1965 Banks Act. But in view of the discussion of monetary instruments and, in particular, noting the Hunt Commission's trend of thought and the recent change in emphasis in monetary policy in the U.K., this mere extension is disappointing. Notwithstanding the concomitant disadvantages of a captive market, it was again extended. In fact, the legislation does not reflect any great effort to improve the competitiveness in the financial sector. Reliance on variable reserve requirements is likely to be the main policy instrument employed to achieve policy objectives, with interest rate priorities ranking high in these objectives. Open-market operations, as yet, do not seem to be considered as the measure for controlling the cash base of the system and thus domestic credit expansion.

APPENDIX.

TABLE 7.

Bills Acquired from and Advances to Discount Houses, the Land Bank, and Other Institutions. (1)

(R millions)

1969	Discount Houses	Land Bank	Other	1970	Discount Houses	Land Bank	Other
J	71,0	14,0	38,6	J	122,1	33,0	42,8
F	37,5	19,5	31,2	F	114,2	62,0	69,8
M	63,4	—	38,3	M	94,7	53,0	39,5
A	73,7	—	34,2	A	148,1	6,0	21,2
M	65,6	—	34,6	M	39,5	19,5	51,6
J	59,0	—	58,7	J	17,2	30,0	86,2
J	112,8	26,0	55,3	J	177,7	51,0	79,8
A	5,7	39,0	65,4	A	116,5	95,0	92,2
S	7,4	31,5	70,7	S	188,2	73,5	87,9
O	—	21,0	36,1	O	72,8	64,0	89,2
N	0,5	17,0	56,3	N	98,0	45,5	85,9
D	—	12,0	54,9	D	117,4	60,5	90,8
1971				1972			
J	238,4	73,5	86,2	J	61,4	138,5	114,9
F	66,4	78,0	97,8	F	78,8	106,0	128,8
M	38,5	78,0	105,0	M	135,2	21,5	117,1
A	2,6	40,0	74,5	A	29,7	8,5	153,3
M	82,3	—	70,5	M	117,4	10,0	132,2
J	47,5	40,0	112,1	J	48,4	33,5	130,8
J	150,5	66,0	77,0	J	102,5	6,0	80,8
A	22,8	96,0	133,3	A	29,8	5,0	164,5
S	119,6	118,5	102,9	S	109,8	14,5	136,3
O	141,0	103,5	100,2	O	73,2	—	101,8
N	99,5	102,5	120,6	N	82,5	—	74,2
D	59,4	126,0	143,9	D	43,8	—	75,3

"To discourage excessive use of central bank credit, the Reserve Bank from July, 1970 applied progressively higher penalty rates to discount house borrowing, which reached a level of 2 per cent above Bank rate in September, 1970. In October and November they succeeded in substantially reducing their indebtedness to the Reserve Bank." (2)

Notes: (1) Includes the NFC, commercial banks, merchant banks and other monetary banking institutions.

(2) SARB Annual Economic Report, 1971 p 26.

Source: SARB Quarterly Bulletins.

CHAPTER V.

FISCAL MEASURES.

INTRODUCTION.

> "I do not wish to argue in detail the broad possibilities of fiscal policy, which seems more suited to influencing the distribution of income and property, the allocation of resources between investment and consumption over time, or the promotion of particular activities such as gold mining and agriculture. Whatever these potentialities, they will have to be operated in concert with monetary and banking policy, if the volume of expenditure is to be influenced. Variations in the supply of credit affect directly the aggregate means of payment, and can be operated with a considerable degree of flexibility. But this is by no means a common opinion." (1)

But it is an opinion which has become increasingly accepted since the time of this article. In agreement with this view, fiscal measures will receive less detailed treatment than that given to monetary instruments.

The decision to limit the discussion of fiscal measures is perhaps further justified by the lack of flexibility of fiscal policy (2). Parliaments have been unwilling to delegate authority to permit greater freedom for tax rate changes. Sales tax changes in South Africa are an obvious exception. Not only are fiscal policy variations relatively inflexible but tax rate changes may not always be politically feasible. That part of the electorate with forward commitments could be caused embarrassment by, for example, an unexpected increase in their income tax liability. As Dr Van Waasdijk so aptly puts it:

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(1) Samuels, L.H. "Control of Inflation." SAJE Vol 35 1967 p 354.

(2) See Steyn, D.H. (ed) "Inleiding tot die Suid-Afrikaanse Staatsfinansies." (J.L. van Schaik Bpk , Pretoria,1961.) pp 52 - 60; and Van Waasdijk, T. "Public Expenditure in South Africa." (Witwatersrand University Press, Johannesburg, 1964.) pp 83 - 91 for a detailed account of the budgetary process in South Africa.

"Fundamentally, the process of government is a political one, no matter how far reaching its economic implications may be." (3) Even if fiscal policy, pertaining to tax changes, were accorded greater flexibility and the authorities were thoroughly committed to the objective of economic stability without regard to the next general election, the question still remains whether enough is known about future levels of economic activity and lag structures to proceed with anything but the smallest of alterations to policy. Furthermore, each alteration is certainly not costless in terms of administrative cost to both tax-payer and receiver, and in terms of the uncertainty engendered amongst tax-payers. John Stuart Mill emphasised more than a century ago the importance of certainty as regards tax liabilities. It would appear then that the only real argument in favour of greater flexibility in tax rate changes would stem from possible mitigation of an error in policy resulting from a misleading forecast. That is, when taxation policy was moving in the wrong direction. Furthermore, the lack of sophistication in the use of fiscal measures is highlighted by the deviation between planned and realized Government expenditures and revenues (dealt with in Chapters Vl and Vll). A final point worth mentioning in connection with fiscal policy is the view held by certain hard-line monetarists that fiscal policy only matters, as regards considerations of economic stability, in so far as it affects the supply of money.

In the light of the above statements, agreement is reached with Van Waasdijk's view that: "Although the budget, used alone or in concert with other instruments, may prove a highly effective means of achieving certain objectives of economic policy, the primary aim of budget transactions is not economic stabilization but good national housekeeping." (4)

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(3) Van Waasdijk, T. op cit p 2.
(4) Van Waasdijk, T. op cit p 18.

Focusing attention on the expenditure side of the budget, the co-existence of inflation and unemployment has removed the usefulness of general 'pump-priming' as a potential component of a stabilization programme. That is, only at the peak of a boom period or the bottom of a recession would the direction of policy seem unambiguous. At other times, greater attention would need to be given to the efficiency of Government expenditure than simply the volume of it. This stress, however, will face the problem of the general inflexibility of Government expenditure. More often than not, Government expenditure would be useful in a stabilization programme if it were flexible in the downward direction, assuming that the authorities were not likely to succeed in financing Government expenditure from genuine saving. As discussed below, it is extremely difficult to reduce Government expenditure. Therefore, in viewing fiscal policy's potential contribution towards improved stability, the bulk of the discussion will be centered around the suitability, or rather unsuitability, of various taxes as stabilization measures, particularly in their role as anti-inflationary measures.

Van Waasdijk (5) has classified the purposes of various tax changes into three categories: Short-term stabilization, medium-term anti-cyclical action, and long-term restructuring the shape of the economy. The taxes discussed below will only be those commonly thought suitable for short-term attempts at stabilization and medium-term anti-cyclical policies. These taxes have been grouped into 'direct' and 'indirect' taxes. The grouping used is intended to be uncontroversial, and the debate of whether or not the incidence of the tax may be shifted or not, is not entered into. Little or no attention has been given to objectives other than stability.

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(5) Van Waasdijk, T. "Some thoughts on Indirect Tax Effects in South Africa." SAJE 1969 Vol 37.

There is a danger of viewing policy instruments in isolation. For example, if personal income tax rates were raised in an effort to combat inflation, the effect of this measure would depend partly on whether or not other tax rates were lowered, whether or not the increased revenue was deposited in the Stabilization Account or simply spent, and if so, on what it was spent. These questions must be answered when viewing the budget as an instrument of stabilization policy. In this thesis, however, each policy instrument will be viewed 'ceteris paribus' to assess its suitability for, primarily, anti-cyclical variation. (6)

GENERAL GOVERNMENT EXPENDITURE.

Consideration will first be given to the optimum size of Government expenditure in inflationary conditions. This is most relevant as the seasonally adjusted consumer price index (1963 = 100) rose to 144,9 in October, 1972. Rates of inflation did vary, but in general there was a fairly steady increase in the rate of price changes. It did, however, start accelerating from the beginning of 1971. The most important point to be made is that the level of Government expenditure, certainly in the short-run (7), is not material from a stability viewpoint, provided that it is financed from non-inflationary sources, and that together with private sector demand, both domestic and foreign, they do not exert excessive pressures on domestic resources given the normal balance of payments constraint. That is, assuming full employment of resources with no increases in capacity nor productivity, rising Government expenditure must be at the expense of private sector expenditure.

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(6) The unpredictability of time in a policy action taking effect, the uncertainty surrounding the size of its impact and its duration militate against the successful use of either a monetary or a fiscal measure as a short-term stabilization measure.

(7) In the long-run, the stability of the economy could be influenced depending on the relative productivity of public sector expenditure compared with private sector expenditure.

In Chapter Vll it will be seen that the authorities have frequently stated their intention to prune the rate of increase of Government expenditure and to finance deficits from genuine savings. They were frequently unable to achieve the latter objective owing to the relative unattractiveness of Government securities - this argument has been comprehensively dealt with in the previous chapter. Taking as given their general 'inability' to finance deficits from non-inflationary sources, it would have been desirable to cut back on Government expenditure given the presence of rising prices, fully employed resources, and, at times, difficulty in achieving a satisfactory balance of payments condition.

According to Professor Samuels, the only time that public expenditure moved contra-cyclically since 1945 was in the period 1957/58 when public investment maintained its ascent while private investment fell. He explains, however, that this apparently shrewd anti-cyclical action "was not due to any conscious policy of maintaining or increasing the aggregate amount of investment. On the contrary, the rise in public investment represented a fortuitous example of compensatory public investment, which reflected deliberate Treasury policy of increasing the public sectors' share of the available investible funds in a period of growing stringency in the capital market." (8)

It is readily acknowledged that the task of reducing Government expenditure is no easy matter. As regards capital expenditures, to postpone these may imply future bottlenecks owing to an inadequate infrastructure. Furthermore, planned capital developments are likely to be meshed with one another, and contracts may have been negotiated thus placing further pressure on the authorities to maintain capital expenditures as originally planned. On top

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(8) Samuels, L.H. op cit p 353.

of this, defence expenditures, which form a not insubstantial part of Government outlays, can obviously not be determined by cyclical considerations. Much of the so-called current expenditure is of a contractual nature (see table below), and 'current' expenditure accounts for approximately 60 per cent of total Government expenditure (9). A point made in this connection by Samuels is worth re-iterating. He states that certain expenditures out of current revenue "have a habit of becoming crystallised in various institutional forms, closely related to special interests, political, social and economic: in the process, they increasingly assume the character of fixed commitments and legal and contractual obligations." (10) Both expenditure of a capital nature and consumption expenditure, as defined below, expressed as percentages of gross domestic product have shown rising trends (11).

TABLE 8.

Current Expenditure by the Central Government.

(R millions)

Year	Consumption Expenditure (1)	Subsidies	Interest on Public Debt	Current Transfers to Households	Transfers to the Rest of the World	Total Current Expenditure
1960	485	40	36	128	2	691
1966	978	80	77	197	1	1 333
*1972	1 836	174	270	333	2	2 710

Note: (1) Current expenditure on salaries and wages and goods and other services of a non-capital nature of the general departments, and not the business enterprises, of public authorities. Public authorities include all departments of the central government, provincial administrations, local authorities, the administration of S.W.A. and other authorities, e.g. social security funds, S.A. Bantu Trust, Transkeian Government, etc.

* Provisional.

Source: SARB Quarterly Bulletins.

(9) Excluding public corporations.
(10) Samuels, L.H. op cit p 353.
(11) For example, consumption expenditure, as defined above, expressed as a percentage of GDP was approximately 9,2 in 1960; 11,4 in 1966; and, working with provisional figures, 12,2 in 1972.

Van Waasdijk (12) proffers four good reasons for expecting the rising trend in Government expenditures. In the first instance, as a result of normal growth trends, for example, in population; secondly, increased social and political requirements in the form of improved traffic control, police force etc; thirdly, an increasing awareness of a government's role in smoothing social inequities - increased subsidies and pensions are obvious examples; and finally, the tendency for expenditures to expand of their own momentum - possibly some empire-building helped along by increased revenues as a result of inflation . No government department will play down the importance of its own role in improving the general efficiency of a country. Allotments of funds may be viewed as a sign of their own importance. They will, therefore, apply for substantial sums of money and thus possibly subjugate macro-economic considerations to their own ego requirements.

The lack of flexibility in changing the level of Government expenditure and the reasons for expecting a rising trend in these expenditures were mentioned above. To show that Government expenditure was not varied anti-cyclically over the period 1960 - 1972, the deseasonalised logarithms of net issues from the Exchequer Account, excluding borrowing, were regressed against time (13). The graph given below leads one to expect a very good fit. In fact, an adjusted coefficient of determination of 96,08 per cent was obtained. That is, just over 96 per cent of the variation in the logarithms of Government expenditure may be explained by the time trend. This relationship does provide strong evidence that Government expenditure did not have any significant anti-cyclical variations bearing in mind the existence of inflationary pressures since the early sixties.

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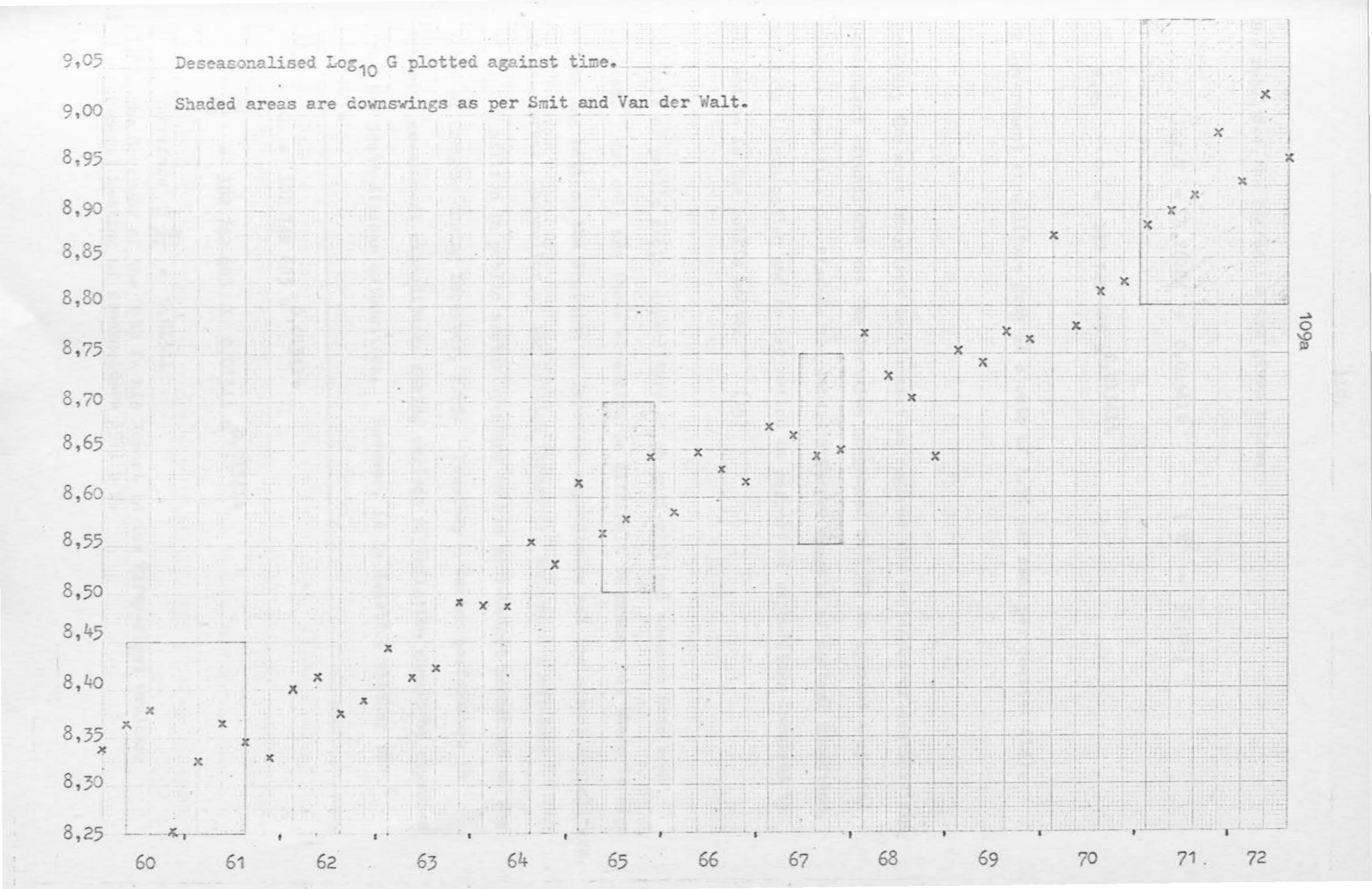
(12) Van Waasdik, T. "Public Expenditure in South Africa." op cit p 24.
(13) The detailed steps undertaken in both deseasonalising the data and in performing the regression are set out in the appendix to this chapter.


Deseasonalised Log_{10} G plotted against time.
Shaded areas are downswings as per Smit and Van der Walt.
9,05
9,00
8,95
8,90
8,85
8,80
8,75
8,70
8,65
8,60
8,55
8,50
8,45
8,40
8,35
8,30
8,25
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72

The results of the regression are given below:

$$\log G = 8{,}26184 + 0{,}01341t \qquad (\bar{R}^2 = 96{,}08)$$

$$\text{i.e.} \quad G = 182\,742\,683\, e^{0{,}01341t}$$

or Government expenditure grew at a rate of 1,34 per cent per quarter (14).

Probably the most important development as regards the avoidance of destabilizing Government expenditure was the decision announced in 1971 to appoint a special Cabinet Committee for Finance "to attain a larger measure of central direction, priority determination and co-ordination in respect of expenditure incurred by all bodies in the public sector." (15)

The role of public sector expenditure as an anti-cyclical measure does seem limited. Not only are these expenditures difficult to prune, but there is also a time lag between the decision to increase expenditure and the actual expenditure. Mr A. Barber, Chancellor of the British Exchequer, announced a cut-back of £1 200 million in public sector spending in his mini-budget presented to the House of Commons during December, 1973. Possibly a better performance in reducing government expenditures during periods of inflation should be expected from the South African authorities. However, it is doubtful whether the

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(14) $G = 182\,742\,683\, e^{0{,}01341t}$

$$\frac{dG}{dt} = 182\,742\,683 \times 0{,}01341\, e^{0{,}01341t}$$

Therefore $\frac{1}{G}\frac{dG}{dt} = 0{,}01341$

(15) The Governor of the SARB in his Report to the Fifty-First Ordinary General Meeting of Stockholders 1971 p 9.

South African Government will be at all willing to allow the required delay in the fulfilment of their multitude of social, economic and political objectives through substantial reductions in public sector expenditures.

TAXATION.

All taxes considered here, excluding company tax, will fall partly on consumption expenditure and partly on saving - they differ only in degree. Obviously in employing tax changes to tailor private sector expenditure to suit the availability of resources generally, the more it affects consumption, rather than saving, the better. Unfortunately the tax changes most likely to affect consumption expenditure and not savings would be ones that were particularly severe on the lower income groups, as upper income groups may well pay the taxes out of savings to maintain their standard of living. There is thus a conflict with equity considerations.

As with all stabilization measures, lack of knowledge poses a huge constraint on the use of tax changes in a stabilization programme. Field studies on the initial effects of tax changes often derive contradictory results. Lag structures are not known with any accuracy. There is thus the danger that by the time the effect manifests itself the action will be inappropriate.

As mentioned in the Introduction, the discussion on taxes will be divided up into 'direct' and 'indirect' taxes. Under direct taxes, personal income tax and company tax changes and loan levies will be covered. Under indirect taxes, attention will be centered on the sales tax while customs and excise duties will just be noted for their lack of suitability to perform as stabilization measures.

To give some idea of the relative importance of direct as opposed to indirect taxes in raising revenue, the relevant figures are given below:

TABLE 9.

Direct and Indirect Taxes Expressed as a Percentage of GDP.

(R millions)

Year	Direct Taxes	% of GDP	Indirect Taxes	% of GDP	GDP
1960	424	8,0	361	6,8	5 274
1965	780	9,9	518	6,5	7 879
*1970 (1)	1 352	10,9	1 032	8,3	12 393

Note: (1) Note that a selective sales tax was introduced and the progression in personal income tax rates reduced in the March, 1969 Budget.

* Provisional.

Source: SARB Quarterly Bulletins.

DIRECT TAXES.

Personal Income Tax: By 1914 an income tax system, similar to the one applied today, was in operation in the Union. The structural change of most interest, from the stabilization point-of-view, occurred in the early sixties when it was decided to introduce a 'pay-as-you-earn' tax collection system. Prior to PAYE, tax rate changes could have taken a year before they became effective, whereas with the PAYE system they would take effect after only a month or so. Furthermore, there is potentially greater flexibility in a system of PAYE collections. For example, Australia altered its PAYE rates on three occasions within a period of five months in 1961/62.

Adjustments in the tax burden are effected by means of a surcharge or discount affixed to the total income tax liability. This surcharge/discount is a fixed percentage of the income tax paid by the individual to the Government. Being a fixed percentage it tends to flatten the rate of progression in the tax structure and is thus likely to be less distorting (refer below) than tax rate changes which increase the rate of progression.

Up to 1969 an exceptionally large proportion, relative to other countries, of total personal income taxes was contributed by a very small group of taxpayers in the higher income brackets. In the First Report of the Franzsen Commission (16) concern was expressed as to this high percentage as it was not merely a reflection of the skew distribution of income in South Africa, but was mainly the result of the sharp rise in the marginal rate on incomes in excess of R5 000. The Commission was concerned as they felt that during a period of overspending, income tax increases would tend to be at the expense of savings rather than consumption. This impact on saving would be more pronounced the higher the rate of progression. Government expenditure, financed from increases in income tax contributions, might thus be inflationary as the revenue derived might not have substantially affected private sector consumption expenditure. They also mentioned other negative effects of high progressive rates namely on work effort and on tax avoidance.

Accordingly the Commission advocated greater reliance on indirect taxes and a smoothing of the rates of progression in personal income tax rates.

> "The Commission is convinced that a more considerable change in the level of consumer spending can be brought about by means of indirect than can be brought about by direct taxation, especially in the event

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(16) Franzsen Commission. "Taxation in South Africa." First Report of the Commission of Enquiry into Fiscal and Monetary Policy in South Africa. (Government Printer, Pretoria, 1968.) R.P. 24/1969. Hereafter referred to as Franzsen Commission (First Report).

> of an upward adjustment in the relevant rates. The Commission recommends that use be made of indirect taxes as the main instrument in a fiscal stabilization policy, because the economic side-effects of taxes of this kind are smaller than are the side-effects of other taxes." (17)

This recommendation was embodied in the 1969/70 Budget when a selective sales tax was introduced and marginal rates of personal income tax were smoothed.

Even bearing in mind the proportion of total personal income tax receipts paid by a small number of people, this emphasis is contrary to those held by many economists. To illustrate this point the views of Okun, the Carter Commission and Perkins, on various aspects related to the use of income tax changes as a stabilization measure, are cited.

Okun (18), a former member of the U.S. Council of Economic Advisers, views income tax rate changes as a particularly appealing counter-cyclical measure. He discounts the challenge of the permanent income hypothesis (19) on the efficacy of income tax changes as a stabilization tool by citing other evidence which supports the usefulness of such temporary changes in rates. ('The Personal Tax Surcharge and Consumer Demand, 1968 - 70' Brookings Papers on Economic Activity (1; 1971) pages 167 - 204.) In viewing the affect of income tax alterations on other social goals, he feels the impacts to be less significant than those frequently attributed to other policy measures.

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(17) Franzsen Commission (Third Report) paragraph 286. That part of the sentence underlined is in italics in the original.

(18) Okun, A.M. "Fiscal - Monetary Activism: Some Analytical Issues." Brookings Papers on Economic Activity (1; 1972) pp 123 - 157.

(19) Permanent income hypothesis: consumption expenditure is a function of an individual's conception of what his permanent level of income is. Changing tax rates will affect saving in so far as they influence the individual's idea of the size of his permanent income. If the tax change is viewed as a temporary anti-cyclical measure, it is unlikely that the individual's evaluation of his permanent income will be more than marginally affected.

The Carter Commission (20) supports the above view by maintaining that "the personal income tax is the most effective single tool for discretionary stabilization policy". They based this conclusion on studies commissioned by them and undertaken in the United States and Canada which indicated that the response of GNP to personal income tax adjustments was reasonably rapid, and if producers were to anticipate the ultimate response of consumer demand, the lag would be even further reduced. That is, if producers anticipated the reduction in consumer demand resulting from an increased income tax liability, they would reduce output after the tax increase was announced.

According to Perkins (21) there is no general presumption that the marginal tax rates in South Africa are unusually high by world standards, and therefore the magnitude of these rates would not pose any obstacle to the adoption of appropriate anti-cyclical adjustments - naturally assuming the necessary delegation of power from Parliament to some committee or individual.

Further factors to be considered under this section are the side-effects of high marginal rates of personal income tax. The Franzsen Commission expressed the opinion, quoted above, that the economic side-effects of indirect taxes were smaller than the side-effects stemming from other taxes. This is debatable as they did not undertake empirical studies to verify these views and field studies concerning the side-effects of high marginal rates of personal income tax would seem to be rather inconclusive regarding their affect on work effort, the supply of funds to enterprises of varying risks, and, of course, on spending(22).

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(20) Canadian Report of the Royal Commission on Taxation. (Queen's Printer, Ottowa, 1966.) Vol 2 p 60.

(21) Perkins, J.O.N. (ed) "Macro-economic Policy A Comparative Study Australia Canada New Zealand South Africa." (George Allen & Unwin Ltd , London, 1972.)

(22) See Trotter, G.J. "Personal Income Tax." SAJE 1969 Vol 37 pp 329 -330 for a more detailed discussion of these side-effects.

According to Allan (23) the evidence as regards work effort does suggest that incentives to be ultra-productive do weaken at very high rates of marginal taxation. Nevertheless, the overall result of a change in income tax payments is by no means certain. It will depend on the relative strengths of the income and substitution effects amongst the various classes of income earners. This, in turn, will depend on how people view the tax alterations. Do they view them as permanent or likely to be reviewed in the next budget? It will also depend on who is able to dissave and who has access to credit, and whether or not they will use these facilities to maintain a given level of consumption expenditure. A final factor to be considered is the effect of high marginal rates on the incentives to evade and avoid tax.

Much has been written about built-in stability of a progressive income tax system. But Mishan and Dicks-Mireaux came to the conclusion after studying this concept that "a passive fiscal policy - maintaining tax rates constant with unchanged (real) government outlays - would not by itself bring powerful pressure to bear on mild inflationary tendencies until after the lapse of quite a few years. Built-in stability is built small into the system, not large." (24)

Company Tax: To reduce the discussion to manageable and relevant portions, the ramifications of taxation of special classes of companies, for example, mining and insurance companies, are not covered. What is said below is appropriate to both 'ordinary' companies and to these special classes.

The Franzsen Commission (25) recommended that "changes in the rate of company

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(23) Allan, C.M. "The Theory of Taxation." (C. Nicholls and Co Ltd , Manchester, 1971.)

(24) Mishan, E.J. and Dicks-Mireaux, L.A. "Progressive Taxation in an Inflationary Economy." The American Economic Review September, 1958 Vol XLVIII pp 590 - 606. Quote from Trotter, G.J. op cit p 332.

(25) Franzsen Commission (Third Report) paragraph 309. Italics in the original.

taxation should not be used as a short-term stabilization measure, but that when circumstances make a change necessary, it is preferable to let stabilization be effected by way of a surcharge or a discount." The reasons behind this conclusion were that: increased company tax would treat equally the yields on existing and new investments, and it would be only new investments that the fiscus would be attempting to have postponed; secondly, there would be a long time lag between fiscal action and investment reaction - projects in progress would not just suddenly stop - and there would be a further lag between the latter and the overall effect on demand; and finally because of the uncertainty engendered - businessmen have many risks to bear in their final assessment of the future without the fiscus burdening them with yet another uncertainty in the form of possible tax changes.

There are, however, other important considerations: company taxation, being a tax on profits, penalises the efficient; and, given a company's propensity to maintain its dividend payments, increased company tax is likely to affect the size of retained profits and have some influence on the pace of investment.

There are thus many factors persuading the authorities not to employ company tax adjustments as an anti-inflationary weapon. Probably the most relevant comment to make to conclude this section is one by Professor Sadie: "company taxation, like all other elements in the tax system, presents a vast area of virgin soil for field research in South Africa." (26) Too little is known to be able to use it as a discretionary stabilization tool with any confidence.

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(26) Sadie, J.L. "Company Taxation." SAJE 1969 Vol 37 p 371.

Loan Levies: The origin of the loan levy in South Africa was a system of compulsory saving introduced during the Second World War to finance the war effort. In the 1953 Budget a so-called 'savings tax' was again implemented. The Minister of Finance justified its introduction as follows:

> "In view of the fact that the necessity to increase taxes is due mainly to the large amount which has to be found on Loan Account for urgent capital works, the Government felt that at least a portion of the necessary funds should be found by means of compulsory saving."

It would appear that the Government regarded the loan levy or 'savings tax' as a partial substitute for increased taxation. Since 1953, the loan levy, levied on the basis of company and individual income tax liabilities, has been imposed in many budgets. It was only in the 1972/73 Budget that the loan levy on individuals was abolished, and both the levies on income tax and dividend receipts of companies were lowered. In the 1973/74 Budget the loan levy on the dividend receipts of companies was rescinded. This phasing out of the loan levy followed the recommendation of the Standing Commission of Inquiry into Taxation which viewed the fact that, although loan levies "are in fact a compulsory investment bearing interest at 5 per cent tax-free, they are still generally regarded as little different from a tax. Furthermore, if they are used to finance expenditure of a continuing nature (rather than large temporary increases in expenditure) then a problem must always arise when the time comes for their repayment. They also give administrative problems. The general view was that levies should be phased out." (27)

Despite these recent 'official' views, the loan levy was employed extensively during the sixties and early seventies. It is, therefore, worth reconsidering

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(27) Minister of Finance in the Budget Speech delivered on the 29th March, 1972 p 16.

its potential as an anti-cyclical tool. First note, however, that the rate at which the levy was collected might only be varied in the Budget, and that they did not have a fixed redemption date but a maximum maturity of seven years. The potential advantages stressed by De Villiers Graaff (28) of this 'refundable tax' from a stability viewpoint would be that repayments could be geared to the level of liquidity. The authorities could thus achieve the same results as a completely flexible income tax policy without usurping Parliament's authority and undermining business sector confidence through the creation of additional uncertainties.

According to De Villiers Graaff the effects of a loan levy on spending are similar, but probably weaker, to that of a tax increase of the same magnitude.

Probably bearing in mind these factors and also noting the ever-increasing demand for funds by the Government, the Franzsen Commission did recommend or rather "regarded as inevitable" the continued use of loan levies (29). In reaching this decision they were aware that compulsory lending decreased the need for the Government to enter the capital/money market to compete for funds and so would mitigate the pressure on interest rates. As they regarded the extension of the burden of the captive market upon the narrow sector of financial institutions as unreasonable, loan levies were felt to be suitable for spreading this burden.

It is interesting to note the views of a majority of businessmen on this matter(30). They were in general opposed to the levy. One of their major objections was that there was a 'proper and accepted' method of raising Government loans for capital expenditures, and that was through the capital market. If a reduction

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(28) De Villiers Graaff, J. "The National Debt." SAJE 1969 Vol 37 pp 179 - 186.
(29) Franzsen Commission (Third Report) paragraph 213.
(30) Summers, D.H. "Loan Levies and Income Tax." Commercial Opinion July, 1959 Vol 37 No 438 p 15.

in the rate of inflation is the objective of economic policy, one must support this side of the argument. Additional Government expenditure must be tailored not to impose excessive demands on available resources where total demand has been excessive, that is, it must be financed in a manner which competes with private sector borrowing through interest rate increases.

INDIRECT TAXES.

The chief sources of indirect taxation prior to 1969 were the customs and excise duties imposed on imported and certain local goods respectively. These were in existence prior to the formation of the Union and are currently levied in terms of the Customs and Excise Act No 91 of 1964. There are numerous other so-called indirect taxes, for example, fees for motor vehicle licences, entertainments taxes, transfer duties on fixed property and shares, stamp duties, rates and taxes on fixed property etc. These many taxes are, however, not considered as stabilization measures in South Africa - they are primarily levied to raise revenue for the Central Government, Provincial Administrations and Local Authorities.

In fact, neither have customs nor excise duties been employed as anti-cyclical tools. Customs duties generally may not be flexibly employed in an upward direction owing to South Africa's commitment to GATT. They have been employed to protect local industry and obviously as a revenue-raising measure. As regards protection, there has been pressure exerted on the Government through the Chamber of Commerce to re-assess constantly the need for protection. The Chamber of Commerce has been, and is, a great advocate of the benefits of improved competition.

> "Assocom - which strongly supports industrial expansion - is in no sense opposed in principle to the use of tariff protection to stimulate industrial growth, but its main concerns are to ensure

> that protection is selectively granted, that it does not unnecessarily raise costs and prices in our economy, and that it is reviewed from time to time to ensure that it is successful and still necessary. When it is no longer necessary, we feel it should be scaled down." (31)

So, besides not being allowed, in terms of GATT, to raise customs duties without resort to lengthy 'quid pro quo' arrangements with other member nations, there is pressure on the Government to reduce tariffs where feasible. Balancing this pressure, however, are requests from organized industry to increase tariffs.

Krogh sums up the potential of excise duties as an anti-inflationary measure as follows:

> "Since the burden of administering excise duties is of such a nature that this form of indirect taxation is traditionally limited to only a handful of commodities, and since the tariffs on several such items are already exceptionally high in South Africa, it follows that very little scope remains for either expanding the base thereof or raising such tariffs in future." (32)

A decrease in excise duties could, however, be a useful reflationary measure.

A selective sales tax (33) was added to the array of indirect taxes in the March, 1969 Budget - Act No 105 of 1969. This tax is levied for administrative convenience at the import/production stage, and the Minister of Finance may alter the rates at which it is imposed at any time.

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(31) Martin, H.S. "New Look in Tariff Protection." Commercial Opinion April, 1963 Vol 40 No 483 p 5.

(32) Krogh, D.C. "Taxation in a Developing Economy." SAJE 1969 Vol 37 p 304.

(33) The Franzsen Commission in its First Report did not advocate a value added tax system owing to South Africa's inexperience in the administration of sales taxes. They felt that the general cost of administering a selective sales tax would be lower than that involved with a turnover tax as fewer firms would be implicated. Although a 'progressive'/selective sales tax would affect consumption patterns and thus the flow of resources to particular sectors, this was felt justified on the grounds of achieving greater equity. VAT, or any turnover tax, would have less distortionary effects but would discriminate against the poor.

The Franzsen Commission's view over the advantages of indirect taxes over direct taxes was noted above; namely, that their economic side-effects were smaller and that they were better able to influence private consumption expenditure. Furthermore, the Minister of Finance announced that indirect taxes "have the advantage that the general public is less sensitive to the incidence of a tax that is levied in an indirect manner. In addition an indirect tax ... makes it possible for the public themselves to decide whether or not they wish to purchase the taxed article." (34)

Despite this not inconsiderable optimism from official sources about the usefulness of a flexible sales tax, there are many areas where accord is not reached with their views. In the following paragraphs certain areas of contention will be raised and certain questions posed which might help dispose the aura of elitism from the sales tax concept.

According to Wessels, the imposition of a sales tax of 5 per cent imposed on passenger cars in the 1969 Budget helped cause sales to drop from about 17 000 units in March to less than 13 000 for April. He had this to say about sales tax changes; "In the long term, general economic conditions and the amount of purchasing power available for heavy consumer goods will, of course, exert the major influences; but, on a short term basis, Government Policy is still an important if not decisive factor influencing motor vehicle sales." (35)

The magnitude of these figures is impressive and the speed of reaction of this type of expenditure does give cause to consider the merits of sales tax adjustments as a particularly appropriate anti-cyclical measure. Other factors to be

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(34) Minister of Finance in the 1969/70 Budget p 8.
(35) Wessels, A.J.J. "The Motor Vehicle Market in 1973." A paper delivered at the Eleventh Business Outlook Conference of the National Development and Management Foundation of South Africa in October, 1972.

considered, however, are that the income not spent on motor cars need not necessarily have been saved, and the effect of Government policy on this particular industry is particularly harsh.

One of the factors borne in mind by the Franzsen Commission in reaching their decision about the superiority of indirect taxes relative to direct taxes was that indirect taxes would lead to a once-and-for-all increase in the cost-of-living, and any wage demands arising from this increase could only be negotiated after some delay. But Van Waasdijk argues that wage demands are increased earlier following a sales tax increase then following an increase in personal income tax.

> "When increased, both a personal income tax and a sales tax will have wage increasing effects, but the latter sooner than the former. ... Since progressive income tax rates and personal saving are both increasing functions of income, a personal tax increase is more likely to be absorbed at the expense of saving than an increase in sales tax (especially of the regressive type South Africa has) which immediately cuts into consumer budgets."

In a footnote Van Waasdijk quoted the case of the President of the National Union of Distributive Workers who lodged wage claims within six months of the Budget in which the sales tax was announced - this occurred despite there being simultaneous concessions offered in respect of income tax payments. He concludes that this "draws into question the argument that a sales tax has an anti-inflationary effect in that it reduces consumer demand. This claim is made by protagonists of the sales tax in conjunction with the contention that progressive income tax has a disincentive, and therefore inflationary, effect. However, under elastic money supply a sales tax increase will be anti-inflationary only if it does not result in higher wages or if it reduces profits. This pre-supposes: That salary- and wage-earners are under a lasting money illusion

or are unable to recoup the tax by higher pay, and that professional men are unable to charge higher fees to avoid a decline in their standard of living, or that entrepreneurs are forced by economic circumstances to absorb the sales tax. This is hardly an allusion to modern economic society." (36)

Van Waasdijk ends his article with the statement that indirect taxes come into their own as structural 'reshapers' of the economy in the long-run rather than as instruments useful for short-term economic policy. He does, however, qualify this, to a certain extent, by saying that should commodities with a high income elasticity of demand be taxed at higher rates than necessities, then the sales tax would prove useful in helping to build a budget surplus during an expansionary phase. In South Africa, with the so-called progressive sales tax structure, there is,therefore, some degree of built-in stability.

The attractiveness of sales tax changes stems from the fact that it is supposed to affect consumption expenditure, through price changes, and have not too many adverse side-effects. But there is no certainty as to the manner in which prices will react when a sales tax is imposed or increased. Prices will be largely determined by producers' views as to respective profit maximising prices. These views will be influenced by estimation of future demand and supply conditions with obvious concern about the respective price elasticities. The speed with which new prices come into effect will also depend on the size of inventories held. Price reductions following decreases in sales tax can be speeded up, if necessary, by the threat of imposed price control on the offending articles, but will also be influenced by stock levels. Threats of price control may also be used to ensure that the full sales tax reductions are passed on to the public. These factors are important limitations to the use of sales taxes as a short-term stabilization measure - the authorities do not know with certainty how soon prices will adjust, by how much and what the effect on consumption expenditure will be.

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(36) Van Waasdijk, T. "Some Thoughts on Indirect Tax Effects in South Africa." op cit pp 387 - 388.

Much has been said about the regressive nature of the sales tax (37). The authorities have tried to introduce some progression in the tax rates by not taxing 'essentials' and imposing progressively higher rates as one moves up the scale towards those commodities generally classified as 'luxuries'. The cost of introducing this progression has been the distortion to market forces in determining future management of resources. It has also been, as noted above, particularly harsh on certain industries. It should be remembered, however, that a sales tax change can achieve more pervasive results than an income tax change, particularly in South Africa where only a small percentage of the population pays personal income tax, and may thus achieve a greater impact on consumption expenditure.

In conclusion, empirical studies would not seem to justify the confidence shown in sales tax adjustments as an anti-cyclical measure.

INCENTIVES TO INVEST.

The two instruments discussed are the 'initial allowance' and the 'investment allowance'. Other incentives to invest are used, for example, to encourage the establishment of industry in the border areas; these inducements, however, are not consciously applied or varied in intensity with a view to improving the stability of the economy in the short or medium-term.

Before discussing their relative merits, a brief mention will be made as to how these two incentive schemes work. Under the 'initial allowance' scheme, in addition to the amount normally allowed for depreciation in the first year a further proportion of the cost of the plant, machinery etc. is tax deductible

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(37) Professor Trotter (op cit) has posed the question whether as much thought has been given to the inequity arising from the non-inclusion of capital gains in the definition of taxable income as to the regressive nature of South Africa's sales tax.

in the year of purchase. In subsequent years, however, the depreciation allowance is less than it would have been in the absence of the 'initial allowance'. The scheme then is largely one of accelerated depreciation.

The investment allowance system involves a permanent exemption from taxation, and as such provides a stronger incentive to undertake investment expenditure. A company is able to write-off, effectively to depreciation, greater than 100 per cent of the cost of the asset. That is, the investment allowance gives similar help to the company in the first year as does the initial allowance, but with no reduction to subsequent depreciation allowances.

Both these measures have been employed as stabilization measures - measures to improve or decrease economic activity - as well as measures designed to improve the structural shape of the economy. The inevitable questions, however, may be posed as to the degree of sophistication shown in their utilisation as stabilization measures. What were the authorities hoping to achieve in quantitative terms and in what time period? How did they determine the rates at which these incentives were applied? The determinants affecting investment demand may be guessed fairly accurately, but their respective significance in influencing investment decisions is not known with any certainty. These factors could well render the use of initial and investment allowances as destabilizing.

Studies would seem to indicate that investment decisions are not influenced to any great extent by interest rates i.e. the interest rate elasticity of demand for investment goods is low. In that case, is it likely that an interest-free loan, in the case of the initial allowance, is going to have a significant impact on investment decisions, particularly if a company is fairly liquid? Through the investment allowance, an investment project is effectively subsidised. This obviously will make for a relatively stronger impact on investment decisions,

but will it be significant? Both measures, however, could tip the scales in favour of, or against, an investment project by indicating the Government's attitude towards renewed expansion.

Both these measures do have liquidity effects i.e. the cash flow of a concern undertaking an investment project is improved in the early years. This improvement, particularly as it is in the early years where forecasted trends in costs and revenue are likely to be relatively accurate, may prove a strong factor influencing the decision to invest. Furthermore, the more liquid the firm, the less it has to rely on outside sources of finance. These two incentives will have maximum impact where the enterprise expects to make an overall profit immediately. According to Sadie, evidence regarding the efficacy of these measures is mixed:

> "The field research undertaken so far to determine the effects of these instruments on investments has been very limited and was really only concerned with their role as inducements and not as deterrents when they are reduced or withdrawn. The results tend to indicate that businessmen who react positively are in the minority, but even so it has been stated that 'far more firms have been influenced in their investment decisions by these allowances than is usually supposed', indicating that there has been, in general, little confidence in the efficacy of these measures." (38)

If these incentives to undertake investment expenditure are viewed as temporary, their impact on investment decisions may be greater. And yet incentives must be of sufficient duration to allow entrepreneurs time to make the decision to invest, and they must be assured that if a project is started in a year when the initial or investment allowance is increased, that the project will qualify in its entirety for the higher percentage. Thus the flexibility with which these allowances may be introduced and effectively withdrawn is severely prescribed.

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(38) Sadie, J.L. op cit. p 370.

From a revenue viewpoint, the implementation of an 'initial allowance' does not involve the authorities in a revenue loss in the long-run. With the investment allowance, however, the state is to a certain extent subsidising the capital expenditure which qualifies for the allowance. The fiscal authorities in the United Kingdom have replaced these investment incentives by payment of cash grants to those firms undertaking investment expenditure. They viewed the effects of the investment allowance as not being great enough to negate the loss in revenue to the Exchequer. Furthermore, during inflationary periods the replacement costs were often far greater than the historical cost on which the allowance was based. Another factor influencing their decision to switch to a system of cash grants was that firms which incurred losses enjoyed no immediate benefit.

Should the authorities wish to stimulate investment expenditure in the private sector, the use of either the initial or investment allowance is preferable to the discount method of changing company tax payments, as the former method is linked directly with new capital expenditure by business enterprises.

INCENTIVES TO SAVE.

The demand for Government securities by the public is limited by the properties of these assets: generally interest rates are too low given the maturity of the security, and there exists the possibility of capital loss owing to a rise in interest rates. The authorities tried to rectify this situation with issues of special savings bonds to the public - they were intended to encourage saving at the expense of consumption expenditure. The first issue of these tax-free Treasury bonds occurred during 1966.

It is, however, unlikely that the absolute level of saving would be more than marginally affected. Rather certain types of saving would be channelled off

to the Government sector. And these forms of saving (non-contractual saving by the public) do not form a large percentage of total saving. In fact, total personal saving as a percentage of gross domestic saving tends to fluctuate between about 22 - 28 per cent.

Contractual saving, in the form of insurance and pension premiums, is encouraged via tax concessions. The rates of these concessions, however, are not varied with a view to improving the stability of the economy. The tax is designed to encourage certain social values.

OTHER MEASURES.

Under this heading, building controls and price controls will be reviewed to assess their potential as stabilization measures.

Building Controls: Building controls were introduced in South Africa in 1964 to divert resources to relieve the shortage of housing and thus hopefully to avoid upward pressure on the cost structure of the building industry through the deferment of certain less essential projects. The stringency of building controls was altered during the course of its existence: for example, in 1967/68 building controls were partially relaxed. But to think of building control in terms of an anti-cyclical measure is really inconceivable. Besides possessing the normal disadvantage of a direct control measure (examined under monetary instruments), the duration and variability in the time taken to plan, initiate and complete a project gives the authorities no hope of controlling the situation, through the scheduling of projects, with any degree of accuracy.

Building controls were eventually withdrawn in the 1972/73 Budget - "The position has now changed and the housing position can be satisfactorily dealt with without such control. In order to give greater freedom to the industry,

the Government has decided to suspend control." (39)

Early in 1965 Mr A. Keller, President of Assocom, had queried the necessity of control of the building industry and had pointed out possible disadvantages of such control.

> " ... without control, the situation would in any event tend to remedy itself by causing less economic projects to be deferred and by bringing in additional resources, including the more efficient use of manpower available in the Republic.
>
> Restrictive control, based on concepts of 'essentiality', may not succeed in allocating resources in the best interests of the community in general, because there is no rational criterion by which to judge whether one project is more essential than another. It must be remembered that production, distribution, transport and communications are interdependent, and to limit expansion in one way may adversely affect the others ...
>
> Control must of necessity introduce uncertainties, which might have a retarding effect upon general economic growth." (40)

Looking at the series of wholesale prices of building and construction materials in the South African Reserve Bank Quarterly Bulletin, building controls, purely on inspection, do not seem to have successfully held down the rate of increase of these prices. The series increases fairly steadily from 102,2 in 1964 (Index: 1963 = 100) to 129,7 in 1972. The advantage to the housing situation gained through building control could thus have been outweighed by the negative influences of such controls.

Price Controls: During 1964 Assocom presented strong opposition to the proposed price control legislation. If enacted, the powers, formerly exercised in terms of the War Measures Act, would be given to the Price Controller enabling him to impose price controls under any circumstances.

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(39) Minister of Finance in the Budget Speech delivered on the 29th March, 1972 p 8.

(40) "Assocom News and Views." Commercial Opinion January, 1965 Vol 42 No 504 p 5.

" ... economic and domestic and foreign investment in the economy are best encouraged by the maintenance of a free enterprise economy, and it is essential to such an economy that prices are determined purely by market forces. Assocom accordingly opposes the use of price control under any other than abnormal or emergency circumstances, such as war conditions, and since the necessary temporary powers could be taken upon the development of such conditions, Assocom opposed the Price Control Bill Act No. 25 of 1964 which gave power to impose price control even under normal circumstances." (41)

It is interesting to quote Mr Steyn, South Africa's present Price Controller, as he replied to questions in a newspaper interview concerning his powers, his basic objective, the extent of price control, and the possible extension thereof, the psychological impact of possible imposition of price controls, and the criteria by which he judges price increase applications.

"Q: Mr Steyn, what sort of powers do you have under the Price Control Act?

A: I can fix maximum prices by notice in the Government Gazette for specific commodities. I can fix, also by notice in the gazette, maximum profit margins at manufacturing, wholesaling or retailing level for specified commodities. I can freeze the prices of specified commodities and I can direct a specific company to reduce its prices or not to increase them beyond a certain point without the Minister's permission. The same applies to services.

Q: Are there any exclusions?

A: Yes. In terms of a long-standing policy decision on the Government's part, I cannot use these powers in relation to agricultural products of which prices are controlled by the marketing board mechanism. Also excluded are most professional services, rent and most forms of transport services.

Q: What is the basic objective of the Price Control Act?

A: To ensure that consumers are protected against excessive prices ... to see to it that manufacturers, wholesalers and retailers do not charge prices that cannot be justified in terms of normal economic principles.

Q: To what extent is the Price Control Act applied now?

A: ... I would say at a very rough guess that about 30 per cent of total expenditure in the economy is affected by price control.

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(41) "Assocom News and Views." Commercial Opinion February, 1964 Vol 41 No 492 p 5.

Q: What about a more comprehensive system of controls, even a price and wage freeze?

A: The Minister of Economic Affairs has made it clear that a more comprehensive system of controls cannot be considered under the prevailing conditions. A point that should be made here is that price control can be inflationary in that it involves the firms concerned in considerable expense ... and, apart from any other considerations, we would have to expand our staff tremendously if we increased the scope of our controls.

This kind of trained manpower is just not available. One point must be emphasised about the present system. That is that the power I have to extend the application of the Act has a psychological effect in the sense that it acts as a discouragement to private enterprise to charge excessive prices for their goods and services - because they know only too well that any of these goods or services could be placed under formal control at very short notice.

Q: What standards do you apply when you consider price increase applications?

A: ... when we consider applications for increases, we take three main factors into account:

(1) The rate of return on total capital employed by the applicant firm before tax and before payment of interest.

(2) The extent of the cost of increases involved, together with the gross additional revenues the increase will bring the firm, if granted.

(3) The ability of the firm to absorb some of the costs by means of increased productivity or more efficient management. Some applications for increases are motivated by a desire for an improvement in the profitability of a firm. In these cases, the same considerations apply." (42)

Comments that are extremely relevant to the use of price controls (43) are made below. In the first instance, the approval of upward adjustments in prices is likely to lag behind cost increases and could make their appearance when economic

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(42) Mr G.J.J.F. Sreyn as reported in the Cape Argus in the latter half of 1973.

(43) It was felt that controls relating to the prices of agricultural goods and to rents completely lacked flexibility and could not be thought of as potential anti-cyclical measures. Thus their relative merits and demerits have not been taken up here. A point to note, however, is that the timing of upward adjustments in any of these controlled prices could take place at a very bad time for stabilization policy (see above).

activity has slowed down and needs a static price level, or falling price level, to reflate demand through a real balance type effect. One could hypothesise that this happened in 1972 when many price increases were allowed following the devaluation of the rand in December, 1971. According to Messrs Smit and Van der Walt (44), the economy only emerged from its downswing towards the end of 1972.

Once the price of a good is controlled, the management will think twice about passing on gains in productivity in the form of a lower price to the consumer, even if demand is slack. The delay normally taken to approve a price increase owing to 'unavoidable cost increases' will affect their decision as to the future profit maximising price. The price set could well be above that which would have prevailed in the absence of price control.

A point made by Professor Victor Morgan (45) is very applicable to the South African situation. He was very wary of the fact that the level of demand was not mentioned in the criteria justifying price increases nor, in fact, in those under which 'enterprises will be expected to reduce their prices.' This, he mentioned, would introduce an unhealthy rigidity in prices as demand would only affect prices as it affected costs. Furthermore, he felt that greater attention should be given to productivity and cost absorption.

Recently Assocom were again outspoken about price controls.

> "It was ... pointed out that the imposition of price control, and the possibility of more control, had created widespread uncertainty in business circles, imposed severe additional costs on firms and disrupted forward planning. If these conditions were permitted to continue then sooner or later a great deal of business in the country

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(44) Smit, D.J. and Van der Walt, B.E. "Business Cycles in South Africa during the Period 1968 to 1972." SARB Quarterly Bulletin June, 1973 No 108 pp 33 - 38.

(45) Victor Morgan, E. "Is Inflation Inevitable?" The Economic Journal March, 1966 Vol LXXVI No 301 pp 1 - 15.

> would be brought to a standstill. Price control should be phased out as soon as possible before it causes further distortions and weakens competition. ... In a statement to the Press Mr Sher added, 'Commerce feels it high time the authorities ceased concentrating on the symptoms of our economic problems and turned their attention to basic causes.' " (46)

Certainly a very strong condemnation of price control, though possibly a bit guilty of hyperbole for effect! They are, however, not alone in their condemnation of price control in South Africa. Messrs Hupkes and Dickman expressed similar sentiments back in 1966:

> "it is our firm belief that the distorting effects on future investment of such a policy (a price control policy as a longer-term solution for inflation) must be incalculable. The conditions for even a flexible price control policy to operate without long-term harmful effects on the economy are almost prohibitive. Detailed statistical knowledge of all facets of the economy is needed on an up-to-date basis, such evidence must be interpreted correctly and an extremely large degree of foresight into future development is required. Only on this basis can rapid decisions be taken and distortions avoided. The further danger of price control is that it can lead to more controls and, bearing the foregoing in mind, it is our contention that a plethora of wage and income controls can only destroy the functioning of the market economy and impair its ability to produce an expanding supply of goods and services at competitive prices." (47)

Noted above was the Minister of Economic Affair's statement that a general prices and incomes policy was not under consideration. This is indeed fortunate as evidence from other countries, notably the United Kingdom and the United States, indicates that this form of control has not been successful in curbing inflation.

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(46) Report in Commercial Opinion February 1972 Vol 49 No 589 p 26.
(47) Hupkes, G.J. and Dickman, A.B. "Prospects for 1967." (Bureau for Economic Research, Stellenbosch, 1966.) p 49.

A P P E N D I X.

Method Employed to Regress Deseasonalised Government Expenditure against Time (1).

(i) Deseasonalisation of the Data.

To deseasonalise the money supply, for the regression analysis undertaken in Chapter IV, a moving averages system was used on the assumption of the existence of a cycle of seasonal factors which repeated itself each year (2). The trouble with using a moving average method for deseasonalisation is that if the seasonal factors do not exist as guessed, existing cycles may be eliminated or false cycles introduced. On the advice of Dr C. Wymer of the London School of Economics a method that deseasonalises by simply removing the seasonal deviation from the time series of Government expenditure was used. This method is explained below.

Let g_{ij} be the logarithms (3) of the quarterly levels of Government expenditure. ($i = 1, \ldots 13$; $j = 1, \ldots 4$) That is, the data pieces are designated as follows:

		Logs of Government expenditure
1960	1	g_{11}
	11	g_{12}
	111	g_{13}
	IV	g_{14}
1961	1	g_{21}
	11	g_{22}

(1) I gratefully acknowledge the counsel received from Mr J. Sheen and Dr C. Wymer both of LSE.

(2) In the light of the monetary theory of the balance of payments, the realism of this assumption is debatable. It was made, at the time, because the impact of fiscal policy on the money stock was thought to have an annual cycl

(3) Logarithms were taken as it was expected that the level of Government expenditure would grow exponentially.

(a) Take the mean of all the observations:

$$\bar{g} = \frac{\sum_{j=1}^{4} \sum_{i=1}^{13} g_{ij}}{52}$$

(b) Take the means of each quarter:

$$\bar{g}_j = \frac{\sum_{i=1}^{13} g_{ij}}{13}$$

(c) Subtract from each data piece, for $j = 1, \ldots 4$ $(\bar{g}_j - \bar{g})$

For example, to deseasonalise g_{11} subtract $(\bar{g}_1 - \bar{g})$ from g_{11},

Where $\bar{g}_1$ is the mean of all first quarter observations.

(ii) Steps Employed in the Regression.

(a) Found the mean of g_i and the mean of t_i.

$\bar{g} = 8,6172$ where g_i are the logarithms of quarterly levels of deseasonalised Government expenditure.

$\bar{t} = 26,5$ where t_i are the independent time variables.

(b) Calculated:

$$M_{TT} = 52 \sum_{i=1}^{52} (t_i - \bar{t})^2$$

$$M_{TG} = 52 \sum_{i=1}^{52} (t_i - \bar{t}) (g_i - \bar{g})$$

$$M_{GG} = 52 \sum_{i=1}^{52} (g_i - \bar{g})^2$$

(c) Established:

$$b = M_{TT}^{-1} M_{TG}$$
$$= 0,01341$$

where b is the least squares estimate of the growth rate of Government expenditure.

$$a = \bar{g} - b\bar{t}$$
$$= 8,26184$$

where a is the estimated value of g_o.

(d) R^2, the coefficient of determination, was calculated from the formula:

$$R^2 = \frac{b\, M_{TG}}{M_{GG}}$$
$$= 96,16\%$$

(e) $\bar{R}^2$, the adjusted coefficient of determination, is given by

$$1 - \frac{n - 1}{n - m - 1} (1 - R^2)$$

where n = number of observations
and m = number of independent variables.

(f) S^2, the estimate of the variance in the error term, was calculated from the formula:

$$S^2 = \frac{M_{GG} - b\, M_{TG}}{n\,(n - m - 1)}$$
$$= 0,043531$$

CHAPTER VI.

DIFFICULTIES ENCOUNTERED IN THE PURSUIT OF ECONOMIC STABILITY.

INTRODUCTION.

Before embarking on a commentary of policy measures employed, it is wise to examine, in principle, the nature of the tremendous difficulties in the face of the authorities' intent on smoothing cyclical variations and flattening undesirable secular economic trends, as it is all too easy, particularly with hindsight, to criticise policies and to proffer alternative 'obvious' strategies.

NATURE OF THE PROBLEM.

The nature of the problem that confronts the fiscal and monetary authorities has changed over the period under consideration. In the early sixties, there were the 'normal' undulating changes in the intensity of economic activity with prices relatively stable, but showing a slight upward trend. From about 1964 to 1970, the problem was curbing inflation - there was generally full, or over-full, employment of resources. Since then South Africa has come to experience the co-existence of inflation and unemployment - a condition of so-called 'stagflation.' This situation has caused the policy-makers great concern for gone are the times when they could prescribe measures to boost aggregate demand when the economy was below a 'full employment' level of output without being very aware of the possible repercussion on the price level.

It is, therefore, useful to examine a possible theoretical explanation of 'stagflation', one which emphasises the way in which wages and prices are determined, as sound theory forms the basis of successful policy actions.

Rising prices, ceteris paribus, are in themselves deflationary. The only reasons for the authorities to intervene with the adjustment process following a price increase is if this process, left alone, would take too long to restore stability, or if they have a preference for price stability per se.

Prices will not continue increasing unless supported by additional demand. For in the long-run, if the supportive demand is not forthcoming, producers will rather drop prices to boost demand that they may achieve a more profitable utilisation of their fixed facilities. Similarly it is unlikely that, in the presence of sustained unemployment, workers will not accept work at reduced, or at least static, wage levels.

Where sellers are price-setters, prices are likely to be set bearing in mind future developments. A producer will generally set a price for his goods for some time period ahead on the basis of his expectations of relevant future economic conditions, and likewise a worker will pitch his price on the basis of expected demand for his kind of labour, the anticipated cost of living etc. Both employer and employee will alter their expectations should realized conditions differ from what they expected, to the extent that they believe that the actual conditions achieved will influence future events.

In relating the above discussion to 'stagflation', it is useful to quote from Kantor's lucid exposition:

> "In a world of price and wage makers, prices and wages are planned to anticipate demand. Therefore any resultant excess supply is not necessarily attributable to the fact that prices have risen over some period of time, but rather may indicate that prices have increased by too much. In such circumstances, the adjustment process to excess supply, other things equal, would require adjustments of interest rates, output, unemployment, prices and wages, and possibly exchange rates. In an economy long accustomed to generally rising prices and wages and dominated by price and wage fixers, the speed of adjustment to excess supplies will also probably be made in the same order. Interest rates are likely to respond first and wages

> last. Prices and wages in general may continue to rise even after excess supplies make their appearance. It all depends ... not on what may have happened but on the future expectations of price and wage fixers about future demand. It may be presumed that, other things again equal, once excess supplies appear prices and wages would increase at a somewhat slower rate than would otherwise have been the case." (1)

To return to the policy-maker's task: once employers and employees have come to expect rising prices and bearing in mind the way they establish their respective prices, it implies that restrictive stabilization policies must be pursued far enough to alter the general views held about market conditions. But these views are only likely to be changed once unemployment has been experienced for some time.

Now Britain and the United States, for example, have experimented with price and incomes policies to try to improve the trade-off between inflation and unemployment. The logic behind this move has been to act directly on future expectations and so, hopefully, to obviate the necessity of having to pursue restrictive monetary and fiscal policies to the extremes necessary to change expectations to the required degree. This move, however, is only likely to be successful if complemented by deflationary monetary and fiscal policies as good businessmen will judge their impact not necessarily by the description given them by the authorities, for example, restrictive or contractionary, but rather by the true nature of the policy. In terms of the analysis presented above, this would imply that, to conquer inflation, the South African population must be educated to tolerate the necessary stringent policies applied for a lengthy period of time to ensure political acceptability of the policies.

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(1) Kantor, B. "General Equilibrium, Unemployment and Inflation." An unpublished paper.

If one incorporates this analysis with the view presented in Chapter 111, namely that the rate of domestic inflation is determined primarily by the world rate of inflation in the long-run, then even if restrictive policies were pursued long enough, absolute price stability would not be guaranteed. In any event, the severity of the policy may be below that required to still domestic inflationary pressures, as the stabilization authorities are forced to take cognisance of a number of objectives - a point discussed below.

MULTIPLE OBJECTIVES.

Inflation is not inevitable, but the cost of restraining inflation may be unacceptable to society. That is, a major factor impeding the successful pursuit of a stabilization policy is the existence of multiple objectives.

As is well known, the authorities pursuing stabilization policies certainly do not have an unconstrained hand in striving to achieve a relatively stable price level. It goes without saying that they must be concerned with growth and employment rates, external stability, and a host of other goals. Consider two objectives, the maintenance of full employment, however defined, and price stability, given the existence of expected inflation, the possible conflict between the two is apparent from the above analysis. In present times it seems that as the rate of inflation increases, the authorities are allowed to give greater emphasis to the price stability objective with adverse repercussions on the level of employment in the short-run. But as soon as there is evidence of an improvement in the rate of increase of prices, there will be tremendous pressure on governments to expand employment opportunities. And governments enjoy being re-elected! The recent German experience provides an interesting case-study; in the spring of 1970 Chancellor W. Brandt promised that he would not allow employment to suffer through anti-inflationary policies. After about one year of accelerating price increases, Brandt reversed his tactics

and committed himself to an anti-inflationary course. Without effective education of the electorate on the dangers of inflation feeding upon itself and thus accelerating the rate of inflation, it is most unlikely that an anti-inflationary campaign will be pursued to the extent necessary to nullify inflationary expectations and so affect the setting of prices and wages.

In South Africa, goals concerning labour utilisation, the location and protection of industry, defence, efficiency and equity considerations, the costs of financing the building of a home, farmers' credit requirements etc. all pose constraints on the monetary and fiscal authorities. As Okun explains:

> "So long as society cannot hit the bull's eye on all its targets, and as long as some departure from any fiscal-monetary policy that is ideal for the stabilization goal would permit closer approaches to other targets, stabilization must be compromised, in general." (2)

To pursue this point of multiple objectives a little further, consider growth objectives. It is obvious that the goals enumerated above and other policy goals will affect the rate of growth of the economy. In fact, the authorities are continually trying, under inflationary conditions, to slow down the economy just enough to extinguish inflationary pressures and yet minimise the negative impact on the growth rate of the economy. A high real rate of growth makes a contribution towards stability of the price level (assuming some of the increased income is saved). Furthermore, a high real rate of growth is desirable to provide employment for a growing population. If the economy is fully employed, one way to improve its growth performance is by the transfer of resources from less productive uses to more productive uses. If the laws pertaining to the movement and employment of certain kinds of labour were relaxed, this would obviously make a contribution towards improved

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(2) Okun, A.M. "Fiscal-Monetary Activism: Some Analytical Issues." Brookings Papers on Economic Activity (1; 1972) p 129.

management of resources. Naturally ideals of, for example, separate development would have to fall away - yet another example of trade-offs involved in the pursuit of multiple objectives.

A country's path is affected by, amongst other things, its political ideology. Taking another illustration of the conflict between objectives, it was suggested in Chapter IV that the development of financial institutions has been hampered by direct controls which came into being largely because the authorities were not going to allow interest rates to be determined by market forces.

The policy-maker is thus continuously trying to achieve optimal trade-offs amongst objectives via adjustments to the emphasis given to each social, political and economic goal. But a decision has to be made as there are, without doubt, trade-offs involved.

MACRO-ECONOMIC THEORY.

Even if trade-offs in objectives could be agreed upon, the lack of consensus amongst economists over the way to achieve certain macro-economic goals is well known. An unbiased and tested body of knowledge just does not exist. At present, as has been noted, a controversy rages over the proper role of monetary policy. Should monetary policy be geared to interest rates or geared to some monetary aggrgate? Despite increasing weight of evidence in recent years supporting the idea that the level of domestic credit creation should be the key indicator of monetary policy, the South African monetary authorities have persisted with Keynesian ideas on stabilization policy. To a large extent no economist can blame the policy-makers for being slow to change their policies. In the first instance, changes in policy are not devoid of costs and, secondly,

the research methodology employed by economists is commonly not capable of discriminating decisively against various hypotheses. The biggest difficulty usually is in determining what is cause and what is effect.

Given human nature and political competition, the stabilization authorities will generally defend their policies as being the most appropriate in the circumstances prevailing. If difficulties continue, the obvious recourse is to the statement that the policy pursued was not very effective owing to factors operating which were beyond the authorities' control. They thus absolve themselves from blame. Owing to this subjective commentary on policy, the accumulation of knowledge of the circumstances in which specific policies were successful is made more difficult. Moreover, the lessons of experience could be misinterpreted with obvious adverse repercussions on the future role of policy.

FORECASTING.

An essential requirement for a successful stabilization campaign is the ability to forecast future economic conditions. This requirement stems, in the first instance, from the need to implement timeous and appropriate measures, and, secondly, from the need to assess the impact of past policies. This involves the comparison of the existing situation with one which would have materialised had it not been for the policies implemented. It is, therefore, somewhat alarming that in South Africa, particularly since the authorities pursue an interventionist policy strategy, there is no official forecast. The Stellenbosch Bureau for Economic Research do produce an annual forecast which is circulated to all Members of Parliament which surely influences their estimates of future conditions. The extent to which they are influenced, however, is not certain. To give some indication of the accuracy of the forecasts in South Africa, figures of anticipated and actual Government revenues are given below.

TABLE 10

Government Revenue

(R millions)

	1960/61 Estimates		1963/64 Estimates		1966/67 Estimates		1969/70 Estimates		1972/73 Estimates	
	Original	Revised	Original	Revised	Original	Revised	Original	Revised	Original	Revised
Customs and Excise	207,6	215,1	230,5	255,8	343,2	341,5	528,1	574,8	756,2	737,7
Posts, Telegraphs and Telephones	80,0	82,4	94,0	98,2	116,3	120,9				
Inland Revenue	399,5	433,2	499,5	581,9	810,2	820,1	1 133,7	1 237,6	1 906,7	2 126,0
Total Revenue to be received	687,1	730,7	824,0	935,9	1 269,7	1 282,5	1 661,8	1 812,4	2 662,9	2 863,7
The error in total revenue expressed as a percentage of the revised estimate	6		12		1		8		7	

Source: Budget Speeches and White Papers Accompanying Budget Speeches.

This does give some idea of the lack of success in predicting the South African economy. Yet following Kantor (3), the fact that the developments within an economy are extremely difficult to predict makes a stronger case for intervening with market forces, but this very unpredictability makes the task of intervening successfully more arduous.

An obvious complement to the above requirement is timeous and accurate data. The availability of data pertaining to current events has improved of late, but, taking into consideration the magnitude of adjustment frequently made to this 'provisional' data, the accuracy of these early estimates leaves much to be desired. In fact, the validity of empirical investigations may well be doubted owing to the inaccuracy of the data which is revealed after the publication of the research findings.

MANNER OF INTERVENTION.

It was suggested above that the unpredictability of the economy might justify intervention, through stabilization policies, in the normal functioning of the economy. There is, however, no agreement as to the form this intervention should take. It is still debated whether the authorities should pursue a guideline-type strategy where certain variables are to be maitained at fixed settings, or whether they should pursue what Okun has termed an 'activist' or an interventionist fiscal-monetary strategy. Without delving too deeply into the debate the arguments involved are set out briefly below.

On the one hand Okun (4) argues persuasively for a policy strategy in which small changes are made to policies to compensate, where necessary, for expected

(3) Kantor, B. op cit.
(4) Okun, A.M. op cit pp 123 - 157.

changes in future economic conditions. He believes that the increased stability thus attained offsets any costs incurred by changing instrument settings - viz. the trade-offs involved with other non-stabilization goals, the possible disturbance to private sector planning, and the administrative costs involved. His argument follows basically from the premise that enough is known to take small steps at a time notwithstanding the above-mentioned costs, the realities of multiplier uncertainties and the lag structures involved.

Ideally Parliament should delegate authority to a committee to allow them to change tax rates, the tax base and proposed expenditures, where possible, to reflect their changed view of the economy's progress. If the legislative body were not willing to renounce their power to this extent, possibly they could be induced to allow this committee to change certain tax rates within specified limits. The taxes chosen being the ones with the most substantial and predictable effects on expenditure.

A valuable by-product of this philosophy would be the accumulation of knowledge as to the success or failure of specific policy measures under certain conditions.

The rules proponents would seem to base their case largely on the extent of our ignorance as to lag structures, multipliers and future conditions. They would tend to hold the view that 'fine-tuning', or as Okun would rather have it, 'sensible steering', is as likely to be destabilizing. Furthermore, they might also judge that an economy would have performed better in the past had the relevant authorities followed some sort of game plan.

Okun's comment to this last point deserves mentioning. He acknowledges the fact that there have been occasions in the history of stabilization policy in the United States where the policy pursued has been contrary to most economists' prescriptions, and, in fact, has been destabilizing. But he maintains that a

better way to control policy-makers than to force, somehow, guidelines would be to establish a bipartisan, as regards political views, body of eminent economists who would meet periodically to discuss the proposed policy measures. When a large majority viewed the proposed measures as being incorrect in the situation, they should be able to exert sufficient pressure to have the policy reviewed.

As Meltzer (5) has summed up, this debate should no longer be of the character of opposing extreme views, viz. fixed rules versus unlimited discretion. The issues yet to be resolved are: the extent of discretion to be allowed, over which instruments, and who will have the authority to make these decisions. A further question begging consideration is how small the change in policy should be - obviously the expected improvement in economic performance following the policy change should be compared with the costs of effecting the change.

In most recent times, there would appear to be a consensus amongst economists that too little is known to permit the successful pursuit of stability through discretionary changes in instrument settings.

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(5) Meltzer, A.H. "An Introduction to the Political and Economic Aspects of Policymaking." Journal of Money, Credit and Banking February, 1972 Vol 1V No 1 pp 1 - 2.

CHAPTER VII.

STABILIZATION POLICIES IN SOUTH AFRICA 1960 - 1972 (1).

INTRODUCTION.

The stabilization policies and the economic circumstances in which they were prescribed are given below to complement the description and critique of stabilization measures already undertaken, and to give the 'flavour' of stabilization policies in South Africa. The analysis is conducted on an unambitious level and concentrates on the degree of co-ordination between fiscal and monetary policies, the direction of policy and its decisiveness, the timing of policy changes with particular reference to stop-go tactics, and the comparison of the stated intention of the authorities with the results actually achieved. Nothing more ambitious was embarked upon as attempts to establish the quantitative impact of policy involves the netting out of effects of all other factors influencing the performance of the economy over the period and knowledge of all relevant lag structures. Economic insight has not progressed this far.

Figures for the money supply have been given up to 1965. It was established that money post-1965 has not been a good predictor of economic activity. The only characteristics of the money supply post-1965 worth mentioning are that the rate of increase in the series rose markedly from the middle of 1968 before resuming its normal trend from the end of that year onwards, and that the series again accelerated from the end of 1971. (see graph p 21a.) No

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(1) Data was obtained from the South African Reserve Bank Quarterly Bulletins, Annual Economic Reports, and from Reports presented at the Annual Ordinary General Meetings; from the Budget Speeches and from the White Papers accompanying these speeches; and from various publications of the Bureau of Economic Research at the University of Stellenbosch.

further comment on the monetary aggregates is made in the light of the argument that the authorities do not have the power to control the money supply in the long-run under fixed exchange rates.

The description of the economy is broken down according to the cyclical framework of Smit and Van der Walt (2) to ease the description into manageable portions.

A very brief introduction to the 'Sharpeville' downswing might be given as follows:

During the second half of 1959 there was a gradual but distinct recovery in the level of economic activity. The March, 1960 Budget aimed to accelerate the tempo of revival by creating conditions favourable to increases in both private investment and consumption. The major concessions announced were:

(i) the implementation of investment allowances in respect of building and machinery used in the manufacturing and hotel industries. These were in addition to the initial and depreciation allowances already in existence;

(ii) the 5 per cent discount to income taxpayers plus the relief given to taxpayers earning between R4 600 and R10 000 through the adoption of the 'block rates' for tax assessment;

(iii) and the abolition of the loan levy.

Notwithstanding these concessions, the economy slumped as a result of the fall in confidence in South Africa's economic future following racial disturbances. This fall in confidence led to a substantial outflow of capital and to a reduction in investment expenditure.

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(2) Smit, D.J. and Van der Walt, B.E. "Business Cycles in South Africa during the Post-war Period 1964 to 1968." and "Business Cycles in South Africa during the Period 1968 to 1972." which appeared in the SARB Quarterly Bulletins September, 1970 and June, 1973 Nos 97 and 108 respectively.

DOWNSWING: MAY 1960 TO AUGUST 1961.

Introduction: During this period, although cited as a downswing, there was a continued advance in the overall economy albeit at a noticeably slower rate. For the year ended June, 1961, the real rate of growth of the gross national product was approximately 3,5 per cent.

The most important factor characterising the economy during this phase of the cycle was the substantial decline in the gold and foreign exchange reserves which resulted mainly from a considerable net outflow of capital from the private sector. Political developments, particularly the Sharpeville incident in March, 1960, seemed to spark off this downswing. Other factors which might have contributed to the outflow of capital were: the pull of higher money rates in London; large equity investment by South African residents in the Federation of Rhodesia and Nyasaland; and, as the reserves continued to decline, the fear of a devaluation of the rand.

The net outflow of short-term funds was relatively large during the first three quarters of 1960 when the internal monetary situation was still fairly liquid and interest rates relatively low. There was an improvement in the movement of capital after the Bank of England had twice reduced its Bank rate in the fourth quarter, but the balance of payments again deteriorated soon afterwards. South Africa's withdrawal from the Commonwealth and the resulting uncertainty and fear of racial disturbances might well explain the above deterioration.

TABLE 11.

Capital Movements.

(R millions)

Private Sector:

		Long-term	Short-term	Errors and Unrecorded Transactions	Total
1960	1	-36	-12	5	-43
	11	-34	-9	-22	-65
	111	-34	-5	-18	-57
	1V	-40	14	8	-18
1961	1	-33	-12	—	-45
	11	-27	9	-7	-25
	111	23	-17	-29	-23
	1V	-3	-1	-3	-7

Central Government and Banking Sector:

		Long-term	Short-term	Total	Total Capital Movements
1960	1	4	-13	-9	-52
	11	11	-2	9	-56
	111	8	8	16	-41
	1V	-12	-1	-13	-31
1961	1	8	2	10	-35
	11	-4	-7	-11	-36
	111	-1	-8	-9	-32
	1V	-10	-9	-19	-26

Source: Supplement to the SARB Quarterly Bulletin March, 1971: "A Statistical Presentation of South Africa's Balance of Payments for the Period 1946 to 1970." Table 2.

As may be seen from the above table, during the period under consideration there was a net inflow of official and banking capital which, to some extent, cushioned the effects of the private outflow. The balance on current account was favourable except for small negative balances in the second and third quarters of 1960. Over the period as a whole, the trend in imports was downwards owing to the decrease in the tempo of the economy, tighter monetary conditions, and more stringent import controls. But still the total gold and foreign exchange reserves fell relentlessly from R304 million in April, 1960, to the low level of R176 million in April, 1961. They then climbed slowly to R184 million at the end of August.

The authorities thus found themselves in an unusual position in deciding the economic policy-mix: the internal economy required stimulation, while the external condition demanded restraint if a devaluation was to be avoided.

Developments in the Economy and Policies Pursued: When the liquidity of the private sector was reduced either the balance of payments or the Government's fiscal operations, the void was filled by the creation of new money or other liquid assets by the banking system. The increase in the commercial banks' advances and discounts that occurred was made possible not only because they had been relatively liquid at the end of 1959 and could, therefore, rely on rediscounts of Treasury and trade bills, and sales of Government stock, but also because other financial institutions were benefitting from Reserve Bank accommodation up until approximately April, 1961. As a result the Reserve Banks' own liquidity declined - the ratio of legal reserves to liabilities to the public declined to 29,6 per cent in May, 1961 before rising to 36,4 per cent at the end of the period under consideration.

When the seasonal flow of funds to the public sector commenced in November, the Treasury again made available short-term deposits with the principal

commercial banks. In addition, the Treasury invested R13 million with the discount houses during March. Once the seasonal flow had been reversed, the Treasury withdrew these balances. In like vein, the Reserve Bank decreased the minimum reserve balances, which commercial banks were required to hold against their demand liabilities, from 10 to 6 per cent as at the end of March, 1961. This obviated the Bank's need to grant additional credit during that period of seasonal illiquidity. Subsequently the minimum reserve balances were raised to 8 and then to 10 per cent at the end of May and July respectively. This was only after the return flow of funds had commenced from the public to the private sector, but also reflected the switch in precedence from internal developments receiving priority over the balance of payments considerations. This switch took place in May, 1961.

Up until then, the authorities had been hesitant to impose restrictive measures when the reserves were still high in the hopes that the capital outflow would be of short duration. In fact, by the Reserve Bank's Lender of last resort activities, they had relieved much of the restraining influence of the capital outflow. Notwithstanding these credit operations of the Reserve Bank, it still had to make considerable purchases of short and medium-term Government stock to maintain the quoted pattern of rates. This happened despite the imposition of penalty rates and the upward adjustments to quoted rates in May, 1960. On top of this, in June the Bank of England raised its rate to 6 per cent, and their higher structure of interest rates were naturally an attraction to foreign funds. In these circumstances, with the reserves still falling and with preliminary estimates of the GNP which indicated a satisfactory rate of expansion, the Bank rate applicable in South Africa was increased from 4 to 4½ per cent on the 10th August, 1960, and the financial institutions were requested not to extend credit for the financing of imports - it was still felt necessary, however, to tighten import controls in November. At the same time as the adjustment to Bank rate, the pattern of rates for

government securities with maturities up to 10 years was increased by ¼ per cent. The pattern was further adjusted upwards on the 7th September, 1960 and the 10th February, 1961.

The 1961/62 Budget can be adequately described as 'mildly expansionary'. The tone of the Budget is given more precisely by the Minister of Finance:

> "As was the case last year, the prescription in this Budget should ... be the encouragement of capital development, but this year it is even more essential to ensure that any incentives to be granted will not endanger the balance of payments by encouraging excessive imports. On the contrary, one of our objectives should be to conserve foreign exchange. At the same time we should endeavour, in all possible ways, to bring the attractiveness of South Africa as a field of investment for foreign capital to the attention of foreign investors. In addition, we should prescribe the means by which domestic saving and capital formation can be stepped up still further." (1)

Mention will just be made of the measures announced in the 1961/62 Budget Speech which had the most relevance to the promotion of stable growth in the economy. They were as follows:

(i) the investment allowances for manufacturing concerns and the hotel industry were extended over a longer period, and the investment allowance in respect of new industrial equipment and machinery was increased from 15 to 20 per cent. The initial allowance, in respect of these goods, was, however, reduced from 20 to 15 per cent. As an incentive for the decentralisation of new industries, the investment allowances for such concerns were increased to 30 per cent for equipment and machinery, and 20 per cent for buildings;

(ii) mines, other than gold and diamond mines, were allowed an immediate write-off of 25 per cent of all new capital expenditure, with higher percentages in cases where the mine beneficiates, or causes to be beneficiated, a substantial portion of its output;

(iii) the discount to individual taxpayers was raised to 10 per cent, while a discount of 3 per cent was allowed on the income tax payable by all companies, except the gold and diamond mining companies;

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(1) The Minister of Finance in the 1961/62 Budget p 15.

(iv) to discourage imports, import duties on non-essential goods were announced;

(v) and increased customs and excise duties on motor cars were imposed.

The Minister of Finance stated in his address that should the reserves come to require boosting, further drawings on the International Monetary Fund would be made.

The reserves continued to fall. The authorities had hoped that the internal economy, given the existence of a certain amount of slack and with the necessary encouragement, could attain greater production in export and import-replacement goods, and thus ensure a large surplus on current account sufficient to offset the deflationary effects of the capital outflow. This hope of internal recovery in strategic sectors was given as the reason for the authorities' delay in implementing measures to curtail spending. But as financial conditions continued to deteriorate, fears of devaluation arose which were likely to aggravate the outflow of capital. Moreover, repayments of loans, both private and official, were to be made in the near future and, given the level of confidence in the South African economy prevailing abroad, it was not at all certain that the repayments could be covered by renewals or new loans. Since there was a limit to the extent to which the economy could expand its output in the short-run, there seemed to the authorities no alternative but to decrease the rate of spending to ensure and maintain a large surplus on current account.

A package of measures was announced by the Minister of Finance on the 5th May, 1961. Bank rate was increased to 5 per cent and the Reserve Bank's pattern of rates for Government stock was raised by a further $\frac{1}{4}$ per cent. He also announced more drastic tightening of import control and considerable reductions in tourists' and emigrants' allowances, together with other measures extending

exchange control. It was then announced that the minimum reserve balances which commercial banks were required to keep with the Reserve Bank would again be increased to 8 per cent at the end of May and to 10 per cent at the end of July. The Minister of Finance again requested financial institutions to restrict credit which would be used to finance imports.

In the ensuing weeks further exchange controls were imposed, but the fall in reserves continued unabated. It was on the 16th June that the Minister of Finance announced to Parliament that controls would be extended over the repatriation of foreign-owned capital.

These controls did reduce the outflow of capital and, with the favourable balance on current account, led to an upward movement in the level of gold and foreign exchange reserves in the third quarter of 1961. In fact, the reserves showed a steady increase from a minimum level of R142 million on the 16th June to R204 million on the 13th October and the IMF loan facilities granted to the authorities were not utilised.

Observations about Policy: The point was made above that the authorities were unable to boost the internal economy because of balance of payments considerations.

> "The domestic economy has unfortunately been restrained to some extent because of the unavoidable preoccupation with the balance of payments, but this restraint has been and will continue to be, minimised by trying to make the best use of the available credit and capital." (2)

It has also been suggested that fears of devaluation aggravated the balance of payments situation.

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(2) The Governor of the SARB in his Report to the Forty-First Ordinary General Meeting of Stockholders. (Reprinted in the SAJE 1961 Vol 29 p 184.)

One could hypothesise that a devaluation could have helped the situation despite the fact that the difficulties sprung from political factors. A devaluation might have improved the balance on current account. Furthermore, it would have acted as a disincentive to repatriate capital. Aggregate demand might have been boosted through increased exports and certain import requirements being satisfied through domestically produced output.

Given, however, that a devaluation was not politically feasible, one might wonder whether a better performance might not have been achieved in the economy if the authorities had acted earlier and more decisively. Decisive action would certainly have scotched the devaluation rumours. It was only as from May, 1961, more than a year after the Sharpeville shootings, that exchange controls were progressively tightened. One can understand that the authorities were loath to impose exchange controls of the required nature, bearing in mind the possible adverse effect it might have on future capital inflows, but as they were even more determined not to devalue, the controls might well have been imposed earlier. Furthermore, it was in May, 1961 that the authorities decided to decrease the rate of spending albeit in a very half-hearted and mild manner. In retrospect, it was somewhat naïve to expect the economy, in the light of the prevailing uncertainty, to respond to the extent necessary to attain balance of payments equilibrium through import-replacement and export activity. This 'naivety' is, however, understandable as it was extremely difficult to estimate the size and the duration of the capital outflow. The fact that import controls were moderately tightened in November, 1960 and then even more so in May, 1961 was likely to have mitigated the favourable effects on the gold and foreign exchange reserves of the fall in spending that the authorities sought to achieve post-May - the unsatisfied demand for foreign goods might have been turned to domestic goods and so have hampered the export effort.

Another factor to be considered in weighing the appropriateness of the policy-mix pursued is the level of interest rates. If the various rates of interest had been allowed to attain the high levels that market forces would have negotiated, the rate of capital outflow might have slowed down even though the basic reason for the outflow concerned political factors. The increments to Bank rate that were announced in August, 1960 and May, 1961 were only ½ per cent on each occasion, despite the fact that investment demand then might well not have been highly interest-rate elastic. The Reserve Bank's actions in preventing the rise in interest rates served to make it somewhat easier for the people trying to get their money out of the country.

TABLE 12.

Money Supply (1).

(R millions)

	I	II	III	IV
1960	2 621,9	2 629,7	2 664,6	2 655,6
1961	2 553,8	2 574,2	2 606,2	2 695,4

Note: (1) Money defined as demand deposits with the Reserve Bank and commercial banks, excluding Government deposits and balances due to foreign banks and governments, plus notes and coins in circulation outside the banking sector. (The banking sector is defined as the Reserve Bank, the commercial banks and the NFC.)

Source: SARB Quarterly Bulletins.

Bearing in mind the contention that money does matter, it is interesting to note that the money supply increased from the first quarter of 1961.

In summary, it is possible that better results might have been attained if the authorities had acted more rapidly and more decisively. Bank rate might have been raised by 1 per cent in June, 1960 and the level of interest rates allowed to rise. This could have been accompanied by more stringent exchange controls, if necessary they could have been progressively extended, instead of the authorities allowing deflation to attain external equilibrium.

UPSWING — THE FIRST STAGE: SEPTEMBER 1961 TO MIDDLE 1962.

Introduction: Having almost levelled off during the first six months of 1961, the gross national product once again resumed its upward trend. The pronounced increases in merchandise exports and gold output, ensuring a record surplus on current account, were largely responsible for this improvement in the internal economy. Furthermore, the capital outflow fell substantially, partly due to exchange controls, and the gold and foreign exchange reserves climbed substantially from R168 million in June, 1961 to R456 million in June, 1962.

Money and near-money consequently attained new record levels and the money and capital markets were transformed from conditions of tightness to markets where funds were readily available. Virtually all interest rates declined as did most yields on shares.

Bearing in mind the presence of these tremendous 'take-off' facilities, the revival in economic activity was somewhat disappointing. For example, there still existed relatively slack conditions in the building and motor assembly industries and other related activities. The authorities viewed the slow revival not as a result of insufficient liquidity in the economy but rather stemming from an insufficient rate of actual investment and consumption spending.

These 'insufficient' spending decisions probably reflected the uncertainty generated in the previous period. Concern was also felt for the international political and economic situation.

Developments in the Economy and Policies Pursued: During the previous period monetary policy had been constrained by the large capital outflows and the authorities' intention to avoid devaluation. As the reserve position improved,

expansionary measures could be applied - measures which the internal economic conditions demanded.

As the liquidity of the economy continued to increase, the Reserve Bank moderated the downward pressure on the interest rate structure by decreasing its credit. Bank rate was reduced on the 7th December, 1961 to 4½ per cent to stimulate economic activity by lowering the cost of short-term funds. As expected, the reduction in Bank rate was accompanied by downward adjustments in call money and related interest rates. The Treasury bill rate, in particular, had already fallen to 4,07 per cent by the 7th December, and thereafter continued its descent.

In the gilt-edged market, the Reserve Bank at first maintained its pattern of rates for Government securities at the relatively high level which had been established when Bank rate was raised to 5 per cent in May, 1961. The authorities felt that, although the upward pressure on the interest rate structure had dissipated, the existing level approximated the equilibrium structure of rates.

From the beginning of March, 1962, however, the Bank quoted selling prices of Government stock on a yield basis of ⅛ per cent below its pattern of rates for maturities in excess of 3 years. The Reserve Bank went a step further in May when it decreased its entire interest rate pattern for Government stock by ⅛ per cent.

In early May, the Treasury bill rate was as much as 1,70 per cent below Bank rate. It was decided not to decrease Bank rate, but rather to revert back to the practice which existed prior to May, 1960 and quote a separate discount rate for Treasury bills which was directly related to the prevailing rate at which such bills were being issued; i.e. at ½ per cent above the current average tender rate.

The authorities felt it inappropriate at the time to reduce Bank rate largely because of two considerations. In the first place, a strong stimulus to economic activity might not have been wise policy as it could have led to a substantial importation of goods and services at a time when South Africa was approaching its seasonally leanest period for exports. Furthermore, capital outflows in the form of dividends and loan repayments were expected. The second consideration involved deposit receiving institutions. The commercial banks had extended their range of facilities offered to customers and had come to hold a fair proportion of their total deposits in the form of interest-bearing deposits. They were thus less inclined to adjust their lending rates following even substantial changes in monetary conditions. As Bank rate determined commercial banking lending rates, the authorities felt constrained in their use of Bank rate adjustments and decided to wait until they were sure that the economy required further stimulation and for conditions which would allow financial institutions generally to follow the Bank's lead more easily.

The Budget of 1962 was formulated with the intention of stimulating the economy, particularly private fixed investments and exports. On the whole, it was very mildly reflationary. On the one hand, the time limits of the investment allowances in respect of buildings, and machinery and equipment, were again extended to June, 1966 and June, 1965 respectively. Exporters were conceded a special income tax allowance based on additional expenditure, other than capital outlays, to develop foreign markets, and R500 000 was provided to assist exporters generally. The level of current Government expenditure, particularly on defence, was markedly higher than during the previous fiscal year. On the other hand, to increase revenue to help finance this expenditure, the discounts in respect of income tax, which had been granted to both individuals and companies, were withdrawn. Moreover, increased duties were levied on liquor, gramophone records, petrol and diesel oil, and on a number of smaller items.

As the balance of payments continued its favourable trend, it became apparent to the authorities that the level of spending could comfortably increase without causing a deficit on current account, nor create inflationary pressures owing to the existence of a certain amount of slack in the economy. Accordingly Bank rate was reduced to 4 per cent on the 13th June, 1962.

Simultaneously the Bank again lowered its pattern of rates for Government securities by $\frac{1}{8}$ per cent. Downward pressure on this pattern, however, continued and, although the Bank began to quote selling prices on a yield basis $\frac{1}{4}$ per cent below its pattern of rates, it still had to sell large quantities of such stock. This led to a further reduction of $\frac{3}{8}$ per cent on the 24th July in the Bank's pattern of rates. At that time, the Reserve Bank held R13 million worth of Government securities in its portfolio, compared with R158 million at the end of June, 1961.

> "A major aim of recent monetary policy, therefore, has been to secure a more orderly increase in the money supply and in the availability of credit and a more orderly reduction in interest rates than would otherwise have been the case." (2)

During the period under consideration there were no major changes in measures pertaining specifically to the balance of payments. As regards import control, the modifications that were introduced tended to decrease the severity of the controls. Certain exchange control regulations were modified and relaxed with a view to making them less stringent and to overcome practical difficulties in their application.

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(2) The Governor of the SARB in his Report to the Forty-Second Ordinary General Meeting of Stockholders 1962 p 10.

Observations: The policy decisions taken during this period highlight the hesitancy of the authorities to take any action. Their forecasting abilities were obviously very suspect, they were constrained in their policies through the imposition of multiple objectives, and they were not sure of the results they would achieve. The authorities wished to reflate the economy but were inhibited by fears of weakening the balance of payments position and, of course, of inflation.

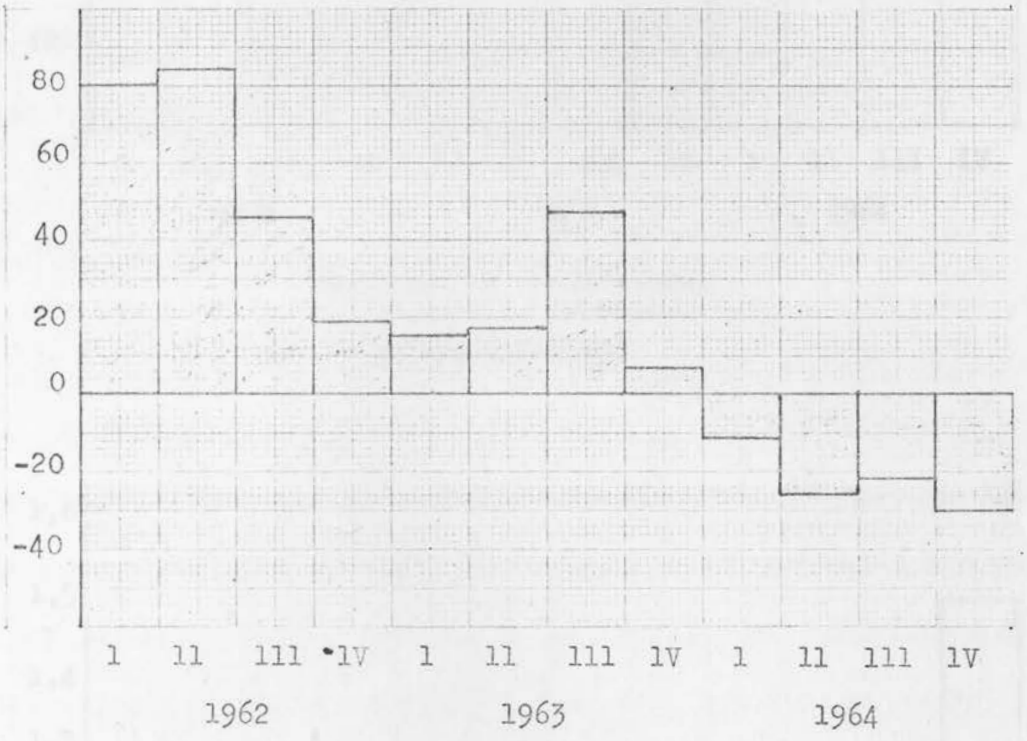
The final point to be made is that if financial institutions were interfered with as little as possible, the additional constraint on Bank rate adjustments would not have been imposed on the monetary authorities.

UPSWING — THE SECOND STAGE: MID 1962 TO MID 1964.

Introduction: The upswing in general economic activity, which had begun from about the middle of 1961, gained considerable momentum during the period under consideration. The graphs drawn below illustrate broad developments in the economy during this period.

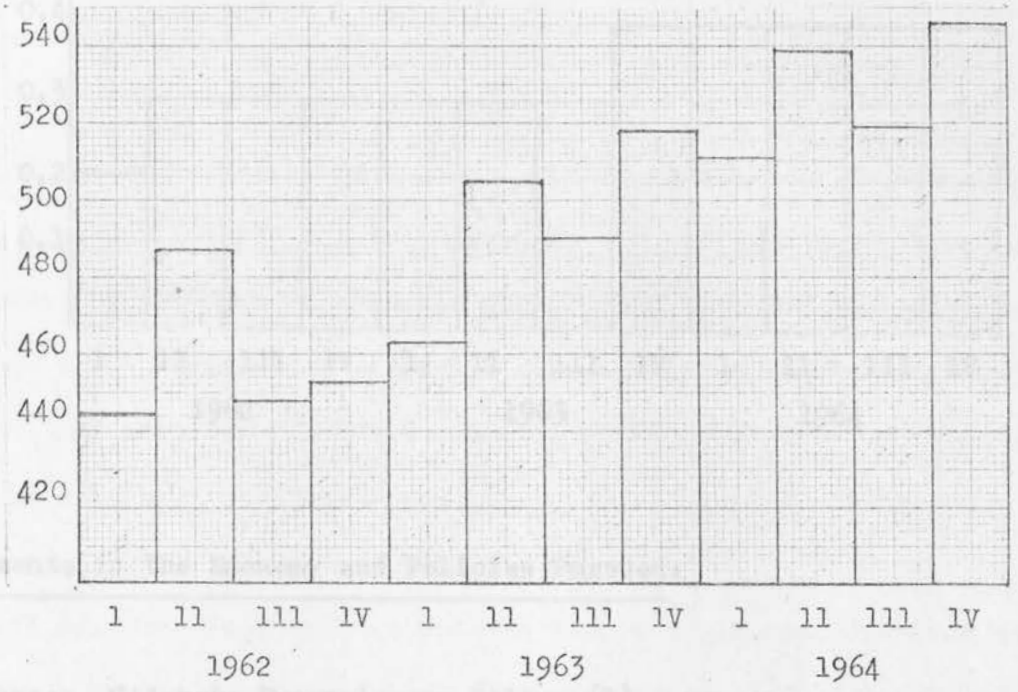
Changes in Gold and Foreign Exchange Reserves.

(R millions)



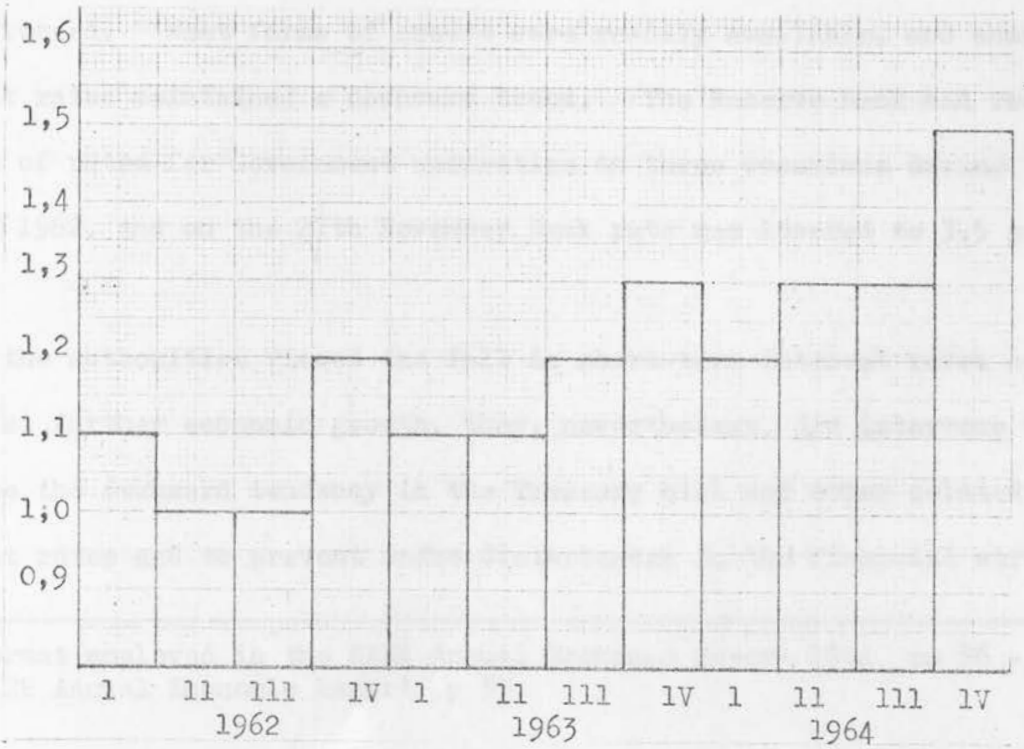
Merchandise Exports f.o.b. Net Gold Output and Service Receipts.

(R millions)



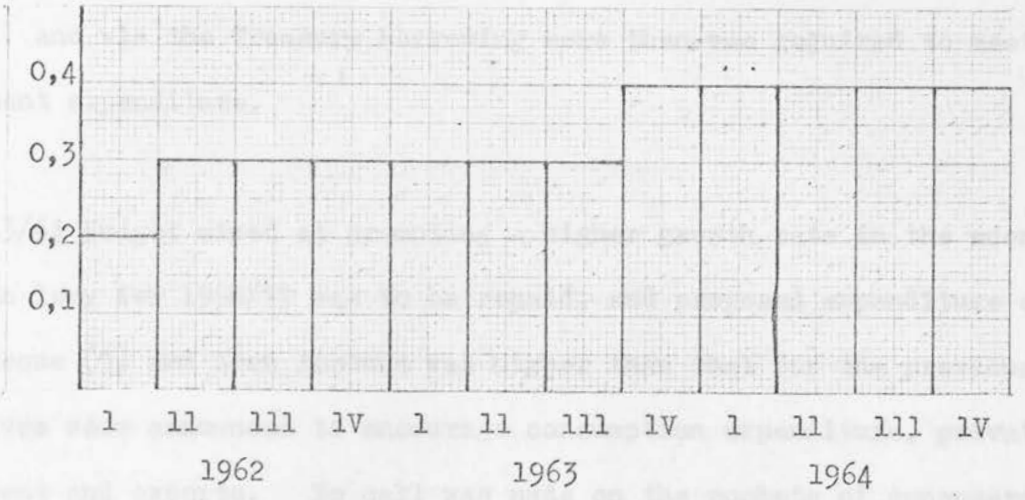
Consumption Expenditure.

(R'000 millions)



Gross Domestic Fixed Investment.

(R'000 millions)



Developments in the Economy and Policies Pursued:

First Phase: Moderate Expansionary Policy (1).

The steady increase in the gold and foreign exchange reserves created a favourable monetary environment in which further expansion of the economy could proceed. Most forms of credit were readily available, and short-term interest rates maintained a downward trend. The Reserve Bank had reduced its pattern of rates for Government securities on three occasions during the latter half of 1962, and on the 27th November Bank rate was lowered to 3,5 per cent.

Whilst the authorities viewed the fall in short-term interest rates as desirable to assist further economic growth, they, nevertheless, did intervene "to moderate the downward tendency in the Treasury bill and other related short-term interest rates and to prevent undue disturbances in the financial structure." (2)

(1) Format employed in the SARB Annual Economic Report 1964 pp 36 - 40.
(2) SARB Annual Economic Report p 37.

The authorities accomplished this end through the so-called 'swop arrangements' whereby the commercial banks were allowed to invest limited amounts abroad; through increased allocations under the 'arbitrage' scheme for share purchases abroad; and via the Treasury borrowing more than was required to meet Government expenditure.

The 1963/64 Budget aimed at promoting a higher growth rate in the economy. The loan levy for 1958/59 was to be repaid, and proposed expenditure on both the Revenue (3) and Loan Account was higher than that for the previous year. Incentives were announced to encourage consumption expenditure, private fixed investment and exports. No call was made on the pockets of consumers by way of increased taxes.

As regards measures to stimulate consumption, a 5 per cent discount on personal income tax payments was announced. Income tax concessions to gold mines and farmers were promulgated. Furthermore, increased benefits to pensioners, more generous deductions from taxable income in respect of contributions to pension funds, increased rebates on insurance premiums, and a reduction in the customs and excise duties on petrol and diesoline used for road transport were tabled. The Minister of Finance felt that these concessions, together with the tax-free period of 8 months up until February, 1963, would stimulate total consumer spending.

The time limits on the investment allowances in respect of machinery, equipment, and buildings were extended. As an incentive to export, all exporters were allowed to deduct 125 per cent of allowable expenses in developing their foreign markets, irrespective of their success or failure as regards turnover

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(3) Increased salaries, amounting to an estimated R31 million, had been announced in the Public Service and in the Railways.

in that market.

As the balance of payments' condition improved so import and exchange controls were relaxed in certain respects.

Second Phase: No Need for Further Stimulation.

Toward the end of 1963 the authorities felt that the economy did not require further stimulation owing to the development of certain bottlenecks. Restrictive measures were not, however, deemed necessary as with the reserves high, imports could be allowed to expand, and there was also scope for domestic production to increase. Furthermore, there were adequate stocks of most goods available.

Accordingly the 1964/65 Budget contained no special disinflationary measures. The only points of much interest from a stability viewpoint were that the marginal personal income tax rates were smoothed somewhat, that the 5 per cent rebate in the case of personal taxpayers was retained, and the Minister of Finance deemed it undesirable to impose major tax reductions in view of the economic climate despite the large surplus on Revenue Account and the strong cash position of the Government.

The monetary authorities had viewed the rise in bank credit as a natural concomitant of economic growth. But with the appearance of certain bottlenecks, in particular in respect of skilled labour, they were happy to allow the Treasury bill and other related interest rates to rise.

The authorities felt that the more liberal import control policy pursued obviated the need for restrictive monetary and fiscal policies.

Third Phase: More Cautious Attitude towards Credit Creation.

By the second quarter of 1964 consumption expenditure had risen to a new record level. In view of the magnitude of the other components of aggregate demand, the Reserve Bank took steps to increase the cost of credit. This they accomplished by reverting to the practice of applying Bank rate to discount Treasury bills and for advances against the security of these bills. Pressure was exerted on financial institutions to decrease the extension of credit for consumption or speculative purposes. Furthermore, Bank rate was increased to 4 per cent with effect from the 15th July, 1964. As a result of these measures and the deficit in the balance of payments, short-term interest rates, particularly, rose.

The authorities contented themselves with these measures to prevent consumption spending from becoming excessive, as the fall in the gold and foreign exchange reserves since the begining of 1964 had reduced the capacity of the financial institutions to extend additional credit without assistance from the Reserve Bank. "This, in turn, implied that the Reserve Bank, which in view of its high legal reserve ratio still had considerable scope left for credit creation, would from that stage onwards be the main source of liquidity and, therefore, in a favourable position to exercise control over both the creation of money and near-money and interest rates." (4)

Observations: As will be seen, prices increased more rapidly in the next phase of the cycle. The authorities "stop-dc nothing-go" type tactics can again be illustrated in this phase. The upswing was allowed to develop and, in fact, assisted by the expansionary Budget of 1963/64. The 1963/64 Budget did not

(4) SARB Annual Economic Report 1964 p 40.

contain any special disinflationary measures but had rather a neutral tone to it. Monetary policy, up until this stage, was really concerned with moderating the rate of descent of interest rates - admittedly this involved attempts to decrease the level of liquidity in the economy - but it was only in the second quarter of 1964 that the authorities took steps to increase the cost of credit. The steps were taken too late and, given their timing, were too mild.

The description of policy during this period indicates the difficulties the authorities have in simultaneously controlling the supply of money and interest rates.

It is interesting to note Assocom's comment made early in 1964 when the beginnings of an inflation were feared - since November, 1963 the seasonally adjusted consumer price index showed a slow but steady ascent.

> "Restrictions on the employment of labour are not the sole contributor to present difficulties. The pressure on resources would not be so great if we were participating more fully and freely in international trade, and if the allocation of resources were less distorted by the joint operation of tariffs and import control. It can be argued, however, that these other matters are all consequential upon labour policy, that they flow from the attempt to increase living standards without jettisoning economic apartheid." (5)

Assocom had long been advocating freeing international trade transactions as far as possible, as well as freeing the labour market. The latter particularly might have resulted in the improvement of international relations following the racial disturbances in the early sixties.

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(5) "A Ceiling on the Boom." Commercial Opinion February, 1964 Vol 41 No 492 p 3. 'without' appeared in italics in the original.

This statement does need qualification as increases in supply which may flow from a more productive use of labour would increase incomes and so increase demand. For a relaxation in labour restrictions to mitigate inflation one must assume that part of the increase in income so generated is saved. Increased supplies from abroad do moderate inflation, as they imply little extra domestic income.

In this light, the import and exchange control relaxations that were made were probably not large enough in the circumstances to help nullify the build-up of inflationary pressures.

UPSWING — THE THIRD STAGE: MID 1964 TO APRIL 1965.

Introduction: During this period it has been estimated that the increase in real GNP was approximately 5 per cent, whilst GDE in monetary terms increased by about 13 per cent. Bearing in mind the manifestations of strains and bottlenecks in the previous 'phase' of the upswing, this rate of increase in GDE had repercussions on the level of prices. It was estimated, in the White Paper accompanying the Budget Speech of 1966/67, that the consumer price index rose by 3,6 per cent during 1965, compared with increases of 2,4 and 1,3 per cent in 1964 and 1963 respectively.

Increases in all the components of aggregate demand went to make-up the rise in GDE (with the exception of exports which tended to fluctuate around R530 million). This increase in aggregate demand was stimulated by the ready availability of credit. Moreover, the increase in fixed investment was partly financed in an inflationary manner which further stimulated aggregate demand. As an expected concomitant of the increase in monetary demand, the level of imports rose markedly with a consequent deterioration in the Current Account.

Developments in the Economy and Policies Pursued: As mentioned earlier, the authorities were aware of inflationary pressures and certain measures had been implemented to prevent a general inflationary situation from developing. These measures were designed to supplement the natural deflationary pressures existing at the time and so moderate the rate of growth without unnecessarily stinting economic progress. As it turned out, the measures employed were not appropriate as the extension of credit continued unabated. Various factors were cited as explaining the failure of policy to curb domestic credit expansion. These factors are listed below:

(i) the return of Treasury funds to the private sector during the fourth quarter of 1964;

(ii) the increase in Reserve Bank credit;

(iii) the return of commercial bank "swop" funds from abroad;

(iv) the conversion by commercial banks of overdrafts into trade bills and the inclusion of the latter under 'liquid assets';

(v) a net inflow of private capital during the second half of 1964;

(vi) and growing competition by banking institutions for deposits.

The continuing expansion of the money supply led to further restrictive measures. The authorities again resorted to moral suasion. This was accompanied by a more restrictive attitude towards rediscounting by the Reserve Bank, the withdrawal of Treasury funds from the money market, and on the 8th December, Bank rate was increased to 4,5 per cent and a rise of 0,25 per cent was announced in the pattern of rates for medium and long-term Government stock.

It soon became apparent that these 'more restrictive' measures were not effective in their aims. Credit extension remained excessive. Competition for funds became even more intensified. One of the reasons why the commercial banks were still able to extend substantial amounts of credit was the fact that the new banking legislation, which became operative for them on the 1st January, 1965, reduced their liquidity requirements, even though the definition of liquid assets had been narrowed.

Accordingly, on the 5th March, 1965 the Minister of Finance announced major policy changes designed to curb the growing inflationary pressure, improve the balance of payments, and to discourage the 'excessive' competition for deposits. These measures included:

(i) an increase in the Bank rate to 5,0 per cent;

(ii) an increase in the commercial banks' supplementary liquid asset ratios;

(iii) an increase in the official pattern of rates for Government stock, with maturities exceeding three years, by 0,30 per cent;

(iv) the Bank's policy with regard to accommodation was to become even more restrictive and selective, with the possible application of penalty rates of discount;

(v) and the institution of deposit rate controls was threatened.

During the week preceding this announcement by the Minister of Finance, the Governor of the Reserve Bank had again appealed to banking institutions to reduce their extensions of credit, particularly for non-essential consumption. Furthermore, he requested that those financial institutions, which had until the end of 1965 to comply with the more stringent liquidity definitions and ratios in the new Banks Act, voluntarily comply with the requirements then applicable to the commercial banks.

Deposit rate controls were, in fact, instituted with effect from 22nd March, 1965. This naturally tended to moderate upward movement in interest rates generally. The authorities took this step of imposing maximum deposit rates intending it to be of a temporary nature. They were wary of the distortion in the flow of funds to financial institutions as a result of the keen, but not entirely free, competition among banking institutions. This would manifest itself in a growing disarray in the deposit rate structure which would, in turn, have repercussions on the structure of lending rates. In particular, the authorities feared upward pressure on mortgage rates.

In the period under review, the anti-inflationary measures employed were largely credit control measures. This stemmed from the authorities' belief that "the root cause of the economy's difficulties was the inflationary overspending on both capital and consumer goods, by both private and public sectors, and this was made possible by the excessive creation of money and near-money by the banking system." (1)

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(1) SARB Annual Economic Report 1965 p 12.

The Minister of Finance did strive to achieve a disinflationary, or possibly better described as a non-expansionary, March Budget. Estimated expenditure on Loan Account, however, despite being 'pruned', attained a new record level. A loan levy of 5 per cent was imposed on both persons and companies, other than gold mining companies. The only major change in tax revenues was the imposition of a surcharge of 5 per cent on the income tax of all companies, other than gold mining companies. In so far as the expenditure on Loan Account was financed from the previous year's surplus, the overall budget implied deficit expenditure.

The manner in which the Government financed its expenditure added to the inflationary pressures brewing in the economy.

> "The high level of expenditure by the Government and the public sector generally ..., despite the fact that much of it was unavoidable, added - both directly and indirectly - to the pressure of domestic monetary demand and to the demand for imports. Government balances with the Reserve Bank declined by almost R62 million between the end of February and 30th June, 1964, and by a further R66 million during the twelve months ending 30th June, 1965. To an appreciable extent the decline in these balances reflected Government expenditure on imports. Such expenditure, while affecting the balance of payments, did not directly increase the liquidity of the monetary banking institutions. Nevertheless, had it been possible to maintain the balance at a higher level, for example, by greater resort to the domestic capital market for long-term loans, the credit creating power of the banks and the inflationary pressure would have been reduced." (2)

Despite the monetary measures announced in March and the moral suasion exerted to decrease the level of credit extended, the commercial banks' discounts, loans and advances, for example, increased by R24 million and R34 million during March and April respectively. This, however, did represent a slowing down in the rate of increase of these aggregates. The commercial banks remained in a position to extend further credit as their liquidity ratios were

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(2) The Governor of the SARB in his Report to the Forty-Fifth Ordinary General Meeting of Stockholders 1965 pp 10 - 11.

improved via the Government's 1958/68 loan moving into the three-year category and thus being classified as a 'liquid asset', and through substantial movement of funds from the Government to the private sector.

In view of these developments, the authorities increased the liquidity requirements for commercial banks in three stages (May, June, July) to the maximum permissible levels. During this period, the Reserve Bank began quoting penalty rates for accommodation to certain institutions which had been extending excessive credit or credit for non-essential purposes.

On the 29th April, the Reserve Bank increased its pattern of rates for certain Government securities by 0,25 per cent. This was done in recognition of changed market conditions, but also with a view to discouraging the sales of medium and long-term gilt-edged securities by financial institutions to enable them to extend credit to the private sector.

> "In general, it has remained the official monetary policy to reinforce the natural disinflationary force operating through the balance of payments deficit (3) by applying measures designed to increase the cost and restrict the rate of increase of credit, and to reduce the excessively high ratio of money and near-money to gross national product. It is expected that this, in turn, will assist in reducing the rate of increase of total domestic investment and consumer spending to a level more commensurate with the rate of increase of the real gross national product and thus diminish the pressure on both the internal price level and the balance of payments." (4)

Observations: Observations made for this period are set out in point form below.

(i) It was noted above that three major policy decisions to reduce the extension of credit failed, and a whole host of reasons for their failure were

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(3) The gold and foreign exchange reserves fell from R566 million in October, 1964 to R378 million in June, 1965.
(4) SARB Quarterly Bulletin June, 1965 No 76 p xxii.

publicised by the monetary authorities. These reasons do illustrate the difficulties the authorities face once they have set themselves an objective - this is one occasions amongst many where the authorities' original intention diverges widely from the result achieved.

TABLE 13.

Money Supply (1).

(R millions)

	I	II	III	IV
1962	2 587,2	2 722,1	2 849,5	3 069,3
1963	3 003,3	3 126,9	3 246,9	3 483,2
1964	3 480,3	3 636,2	3 641,9	3 774,9
1965	3 762,8			

Note: (1) Money defined as demand deposits with the Reserve Bank and the commercial banks, excluding Central and Provincial Government deposits, plus notes and coins in circulation outside the banking sector. (The banking sector is defined as the Reserve Bank, the commercial banks, the NFC, the discount houses and the Land Bank.)

Source: SARB Quarterly Bulletins.

When the authorities make the statement that the steps taken were too moderate owing to the appearance of certain factors (it is often implied that these factors were beyond the authorities' control) and that they, therefore, did not achieve their goals, they implicitly suggest to any observer of economic policy that the policy initially chosen was correct, and that it was almost unlucky that it needed to be reinforced.

As regards the correctness of policy, the reader is referred back to the discussions on the control of domestic credit creation and on liquid

asset requirements contained in Chapter IV.

(iii) Assocom voiced its disapproval of the moral force exerted on the financial sector to avoid credit being extended for 'non-essential' purposes. Assocom urged the Government to adhere to "the principle of non-discrimination, especially in rural and agricultural areas." (5)

(iv) In the period under review, conditions in the capital market had tightened. The pressure on interest rates generally had fluctuated with the various factors described above. It is worth noting a comment by Messrs Hupkes and Dickman (6) who maintained that the adjustment in interest rates would have occurred earlier and been sharper if "the underlying shortfall between savings and investment had not been masked by undue reliance on bank credit and inflationary financing by the government." This is particularly relevant when one realizes that the authorities had been relying, to a certain extent, on the natural deflationary forces within the economy. An unleashed level of interest rates could have been a useful measure to curtail inflationary overspending. What is more, the authorities did impose deposit rate controls which moderated the upward pressure on interest rates, although the degree of competition amongst financial institutions for funds did provide a clear indication that the level of interest rates prevailing was too low. On the other side of the coin, it is not at all sure that expenditure generally, particularly in the face of business optimism, would have been that much influenced by higher interest rates.

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(5) "Monetary Measures Supported in Principle." Commercial Opinion March, 1965 Vol 42 No 506 p 5.

(6) Hupkes, G.J. and Dickman, A.B. "Prospects for 1966." (Bureau for Economic Research, Stellenbosch, 1965.)

Perhaps all that needs to be added, or rather re-emphasised, is the Hunt Commission's recommendation to free the financial sector from constraints regarding the permissible area of their business operations. This could help achieve, through competition, lower mortgage rates and thus obviate the necessity for another distortion in the management of resources through intervention in market forces. Deserving borrowers could, of course, be paid subsidies.

(v) The final observations about policy during this period stem from Professor Samuels (7). He stated that the rise of inflationary pressures within the economy stemmed from excessive demand, and that the signs of strain brewing in the economy had been overlooked owing to the lax credit policies, despite intentions to the contrary, and the operation of direct controls which tended to conceal and aggravate the distortions taking place in the economy. He maintained that such controls which by-passed market forces complicated the authorities management of the economy for they could only provide a misleading picture of the underlying trends within the economy.

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(7) Samuels, L.H. "Pseudo-remedies Won't Help!" Commercial Opinion September, 1965 Vol 43 No 514 pp 13 - 16.

DOWNSWING: MAY 1965 TO DECEMBER 1965.

Introduction: This period was characterised by a slowing down in the rate of increase of gross domestic product in the second and third quarters of 1965. Gross domestic expenditure remained excessive but there were indications that its rate of increase fell - this was due mainly to a decrease in the level of inventory investment. (This fall in inventory investment was attributable, to a large extent, to the tightening of import controls.) The inflationary pressures persisted in an economy not quite cooled off, and partly manifested themselves in a large deficit on current account. The gold and foreign exchange reserves fell markedly to a low point of R340 million at the end of September, 1965.

Developments in the Economy and Policies Pursued: According to Hupkes and Dickman (1), there appeared little leeway for monetary policy to move, in view of the freezing of interest rates, other than to increase moral suasion and to impose penalty rates of discount in certain situations. Import controls were thus imposed in August. Not only were permits for the importation of consumer goods reduced, but the importation of raw materials and capital goods was to be reduced, as it was felt that the high rate of investment was a principal factor in causing the inflationary pressures. Moreover, applications to establish new factories or embark on major expansion schemes were to be viewed more critically by the New Industries Committee, particularly when the scheme involved the use of imported materials and where there was little or no export potential from the scheme.

The substantial increase in the capital inflow that materialised from the third

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(1) Hupkes, G.J. and Dickman, A.B. "Prospects for 1966." (Bureau for Economic Research, Stellenbosch, 1965.)

quarter of 1965 until the end of the year was not anticipated. The resultant improvement in the level of reserves further increased the level of liquidity in the economy. This liquidity was also fed by falling Government cash balances and by the increase in the net claims of the banking sector on the Government sector. Money and near-money increased sharply despite the fact that the credit restraints should have been beginning to take effect.

In the light of these developments, the Minister of Finance announced the following policy measures on the 13th September:

(i) the public sector (2) would strive to reduce and postpone its expenditures;

(ii) the necessary outlays incurred would be financed from non-inflationary sources. In this regard, the Minister of Finance announced the flotation of a 20-year loan on the 15th October at a rate of 6 per cent, the highest ever offered on a Government loan in South Africa. He also appealed to the private sector to support this loan rather than to embark on expansion projects;

(iii) a special cabinet committee would review Government expenditure involving imported goods;

(iv) and saving through the Post Office Savings Bank would be encouraged through higher interest rates on saving deposits. A new series of national saving certificates was to be issued at, what the Minister of Finance felt to be, a very favourable rate of interest.

The Reserve Bank announced the imposition of a credit ceiling on the 29th October, 1965. Below is given the authorities' justification for such a drastic measure:

> "It has become quite clear that the basic factors in the situation are, firstly, the continuing large deficit in the current account of our balance of payments. This deficit is due to the fact that imports for productive and consumption purposes continue to flow into the country at an excessively high rate relative to export performance.

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(2) The public sector includes general government bodies, provincial administrations, municipalities and public corporations.

The fact that the country's reserves have increased in recent weeks has, therefore, been due to a net capital inflow, largely of a short-term nature. This situation obviously provides no grounds for complacency. The second, and not unrelated, factor is the persistence of undue inflationary pressure which stems from excessive monetary demand resulting in over-spending for both investment and consumption purposes. A favourable climate for the development of both these undesirable trends has been provided, very largely, by excessive credit expansion.

There are indications that the measures already taken by the authorities are having some effect and will probably extend their effect in the coming months. But they are working rather more slowly than anticipated or is felt to be desirable. Moreover, there have been various unavoidable developments recently, such as wage and salary increases and other pressures on costs, which will tend to offset the effects of these measures and to delay the adjustment to a sustainable level of economic activity. Consequently, the Bank, in consultation with the Treasury, has decided that further measures to restrict credit have become necessary.

The Reserve Bank, therefore, has requested all the monetary banking institutions (which, of course, are responsible for the great bulk of credit activities of the country) to ensure that the total of their discounts, loans and advances to the private sector, excluding the Land Bank, as at 31st March, 1966, does not exceed the aggregate of these items as at 31st March, 1965. This involves a moderate overall reduction in credit and should give no cause for undue concern or disturbance." (3)

Toward the end of the period under review, economic activity began accelerating again despite the restrictive measures employed. This further expansion may be attributed to a very liquid economy, an improved balance of payments, to a general optimism in South Africa's future, and to the ineffectiveness of the policy measures taken by the authorities to quell the

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(3) Announcement by the SARB regarding Credit Restrictions, 29th October, 1965. Reprinted in the SARB Quarterly Bulletin December, 1965 No 78 p xxiv.

rise in prices.

Observations: To begin with, it is probably best to view this period as a slight 'pause' rather than a 'downswing' even though the rise in the GDP did slow down somewhat. The rate of increase of GDE slowed down as well but was largely the result of the import controls causing investment in inventories to fall. It is worth quoting here Samuels' views on the recent application of 'balance of payments' measures.

> "The tendency to allow an economic expansion to overreach itself, then to run down the exchange reserves in the hope that the balance of payments will right itself, followed by restrictive measures to protect the exchange position, is a familiar sequence in the Republic's post-war economic history. I am sure that there are all kinds of reasons for South Africa's (apparently cyclical) propensity to allow aggregate expenditure to outrun its supply capacity as determined by domestic production and imports. But I cannot help thinking that the policy measures, which have operated with increasing severity in recent years, such as import restrictions, exchange controls, and high protection to selected industries, are a major cause of the unnecessarily drawn-out process involved in restoring order in the economy.
>
> The imposition of exchange controls and tighter restrictions on imports after Sharpeville undoubtedly succeeded in reducing and reversing the drastic fall in exchange reserves. But they also generated an inevitable glut of liquid assets as foreign exchange earnings increased because of the striking expansion in gold production and merchandise exports.
>
> ...
>
> The beneficiaries of import permits in turn are induced to use their permits to the hilt. If they are wrong, as experience of the post-war working of the import control system has shown, they will be rescued from their errors by the imposition of still tighter import restrictions to protect the country's exchange reserves. It is no accident that industrial and commercial stocks have grown as rapidly as they have during the past year." (4)

The authorities abandoned their reliance on monetary policy when they imposed more severe import controls. It is true that with the level of interest

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(4) Samuels, L.H. "Pseudo-remedies Won't Help!" Commercial Opinion September, 1965 Vol 43 No 514 pp 15 & 16.

rates receiving high priority and with an expansionary fiscal policy, monetary policy had little chance of success. But was enough consideration given to the long-term implications of these import controls as they affected industry? And did not the authorities perhaps under-estimate the influence on the rate of inflation of a reduction in the supply of foreign goods in the domestic market and the likely improvement in the level of liquidity stemming from the balance of payments? Furthermore, following Professor Johnson, the import controls could have only a transitory impact on the balance of payments.

Noted above was the intention of the Government to prune its expenditure and improve the financing thereof to combat inflation. But, as will be apparent in the following cyclical phases, they were, in general, unsuccessful in their aims.

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UPSWING: JANUARY 1966 TO MAY 1967.

Introduction: Gross domestic expenditure began a new upward movement from about the end of 1965. Most other indicators of economic activity suggest a new upswing in the economy from about that time. As a result of the relatively full employment of productive factors, prices rose. It is estimated that during 1966 the consumer price index increased by about 3,6 per cent, while the wholesale price index rose by approximately 3,9 per cent. Nonetheless, real gross domestic product increased by approximately 5,6 per cent during 1966.

During the period under review, private consumption expenditure, current Government expenditure up to the second quarter of 1966, rising inventory investment from the third quarter of 1966, and a large increase in exports were to a large extent responsible for the renewed upswing in economic activity.

The trend in the level of the gold and foreign exchange reserves was upwards during 1966 but fell thereafter. This may be explained by the increase in exports and the high level of net gold output which was eventually offset by substantial imports as import controls were relaxed. During the first half of 1966 there were surpluses on both the current and capital accounts of the balance of payments.

Although the ratio of money and near-money to gross domestic product fell slightly during the period under consideration, the seasonally adjusted figures for money and near-money continued to increase up to July, 1966 before levelling off. The level of liquidity caused the authorities concern as it meant that considerable purchasing power still remained in the hands of the private sector and that there was scope for grey market transactions to increase. The Treasury bill tender rate and related money market rates declined during the first half of 1966, but subsequently resumed their upward course. Conditions

in the capital market, however, progressively tightened. From about the middle of 1966, total claims of the monetary banking sector on the private sector maintained a high rate of increase. From the third quarter of 1966 the authorities managed to reduce the net claims of the monetary banking sector on the Government sector.

Policies Pursued: To avoid the aggravation of inflationary pressures and obviously to attempt to nullify these pressures, the authorities set out to introduce timeous restrictive measures.

In February, 1966 the ceiling on bank credit to the private sector was extended. Measures announced in July encompassed a four-point attack on inflation:

(1) Efforts were made to increase saving: these included an increase in the Reserve Bank's pattern of rates for long-term Government securities, the lifting of deposit rate controls, and efforts to make saving with the Post Office Savings Bank and in National Savings Certificates more attractive.

(2) The authorities intended slowing down the rate of increase of consumption and investment expenditure. To achieve this end, Bank rate was increased from 5 to 6 per cent, and the ceiling on the monetary bank's discounts, loans and advances to the private sector was further extended from the 30th September, 1966 for a period of six months.

(3) The Minister of Finance stated that the August Budget would carry deflationary measures and that every effort would be made to finance state expenditure from non-inflationary sources. He stated that proposals to increase the size of the captive market, by forcing a greater degree of investment in Government securities by life assurance companies, pension funds and perhaps by certain other financial institutions, would be submitted to Parliament.

(4) He announced the decision of the Minister of Economic Affairs to relax certain import controls.

The Budget presented in August, 1966 was, as promised, one with a likely deflationary bias - one which strove to finance Government expenditure from genuine saving. Major adjustments to fiscal measures were as follows: the

captive market was extended; increased duties on a number of commodities were imposed; a 5 per cent surcharge on gold and diamond mines was levied; non-resident shareholders tax was increased; the discount on income tax payable by individuals was withdrawn; the income tax payable by companies was raised and, on top of this, they were required to hand over further funds in the form of an additional loan levy.

Further measures were introduced on the 7th December, 1966 to combat inflation. In a statement issued jointly by the Minister of Finance and the Minister of Economic Affairs, it was promised that the Government would do everything possible to reduce its expenditure, bearing in mind, of course, requirements for the nation's defence, and they appealed to all other sectors to reduce expenditures. They also stated that additional anti-inflationary fiscal measures would be applied, if necessary, in the March Budget. Other steps announced included the sterilisation of short-term funds through the issue of more Treasury bills and the offer of tax redemption certificates to companies and other taxpayers; the lowering of the credit ceiling, yet according favourable treatment to the agricultural sector; the favourable consideration of repayment of foreign loans prior to their redemption date, provided that the repayments were not made using bank credit; further relaxation of import controls; the threat of price controls imposed on a selective basis; and the promise to combat any trade practice which kept prices artificially high.

In the Budget of March, 1967 further fiscal measures were taken to reinforce and supplement monetary policy. The Minister of Finance saw his duty as keeping Government expenditure as low as possible, financing this required expenditure from genuine saving insofar as possible, and promoting saving and productivity.

The surpluses which had arisen on both Revenue and Loan Account during 1966/67

were not used to finance government expenditure during 1967/68. These balances were sterilised with the Reserve Bank or invested temporarily in the External Procurements Fund. It was estimated that some R60 million in the form of additional taxation would be found from sundry sources and only minor concessions were announced.

Observations: The Minister of Finance justified the imposition of the July 'package' by saying that previous measures had been neutralised or were working too slowly owing to the improvement in the level of reserves and hence increased liquidity in the economy. This statement does substantiate the point made in Chapter Vl that the authorities are not often short of excuses for policy failures. He did not offer alternative hypotheses explaining the slowness of the initial policies; for example, that the authorities had misread the situation and the policies imposed were not severe enough, or that the manner in which the Government had financed its expenditure (see page 195) was inconsistent with the monetary controls in operation, or even that the form of monetary control had proved itself deficient.

Assocom made certain telling points in their review of the Budget. They commented on the very high level of proposed Government expenditure. They did not quibble with expenditure on unavoidable capital projects nor the necessity to improve public services' salaries, but they would have wished to have seen an insistence upon improved productivity in State operations. They further maintained that the new customs duties would tend to have an inflationary rather than a deflationary bias:

> "even if there is a comparable article in the country, its price will rise once the competition is removed or lessened." (1)

(1) "The Budget A State Banquet." Commercial Opinion August, 1966 Vol 44 No 523 p 7.

The above-mentioned policy measures, complemented by a multitude of fortuitous factors, would seem to have had the desired effect, as by the middle of 1967 many indicators of economic activity, having risen from the beginning of 1966, reversed their trend.

Statistics and observations over policy, in particular concerning Government expenditure and the manner in which it was financed, are presented at the end of the discussion of the following cyclical 'downswing '.

DOWNSWING: JUNE 1967 TO DECEMBER 1967.

During this period, the gold and foreign exchange reserves rose as a result of the considerable improvement in both current and capital accounts. The increased capital inflows were triggered off by exchange rate uncertainties and, finally, by the Sterling devaluation on the 10th November, 1967. The balance on current account was favourable owing to rising exports and a falling level of imports.

The seasonally adjusted ratio of money and near-money to GDP rose sharply from the third quarter. The rise in the gold and foreign exchange reserves partly explains the rising trend in money and near-money, but more important was the continued increase in bank credit to the private sector. This occurred notwithstanding the policy of direct limitation of the total discounts and advances of monetary banking institutions to the private sector. Analysing the types of credit extended show two main reasons for this increase in bank credit. In the first instance, the cash credit advances of the Land Bank rocketed upwards as a result of good agricultural crops, and secondly, whilst the monetary banks observed the ceiling in terms of discounts and advances, they significantly increased their investments with the private sector. This does illustrate the point made in Chapter IV of how direct controls tend to be by-passed after awhile.

> "While demand was largely curbed by restrictive monetary and fiscal policy measures, including the paring of expenditure in the official and semi-official sectors, the supply of goods was increased as a result of the progressive relaxation of import control and the improved production conditions in agriculture." (1)

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(1) Minister of Finance in the Budget Speech delivered on the 27th March, 1968 pp 1 & 2.

Hupkes and Dickman (2) have presented an excellent summary of the policies undertaken since June, 1967, that no more can be done but quote them.

Summary of Official Policy Measures and Statements of Intention since June, 1967.

August

The Reserve Bank was given legal powers to enforce the credit directive which it then extended until further notice.

The Reserve Bank Governor, in his Annual Address, drew attention to the necessity for amending the Banks Act for more effective credit control, to a possible tightening of existing measures, and to a closing of "certain loopholes".

September

The "RSA" Savings Campaign was introduced.

New controls over new car sales were instituted, aimed at ending the avoidance of Hire Purchase Act requirements through "leasing" arrangements.

October

The Prime Minister's Statement on the September meeting of the Economic Advisory Council puts the Government's view that further drastic anti-inflationary measures are not required, but that there is no question of a relaxation of the existing measures which should indeed be made more effective.

In particular:

(i) the establishment of a third Iscor is to be postponed and other expansion schemes retarded;

(ii) Richards Bay and related developments are to be retarded and the IDC is to scrutinize new ventures selectively;

(iii) current state expenditure is to be curtailed, even if inconvenience to the public occurs;

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(2) Hupkes, G.J. and Dickman, A.B. "Prospects for 1968." (Bureau for Economic Research, Stellenbosch, 1967.) pp 23 & 24.

(iv) provincial and local authorities are requested to follow the Government's example for the current financial year;

(v) the Government will make a serious attempt to limit its expenditure for 1968/69 and expects other public sector authorities to do the same, especially in regard to capital projects;

(vi) the Banks Act is to be amended in order to extend its scope;

(vii) exemptions from the bank credit ceiling will be gradually curtailed, apart from those affecting farmers, and the monetary authorities will take appropriate steps to mop up surplus liquidity, particularly to neutralize any capital inflow. Importers are urged to reduce foreign liabilities;

(viii) in conjunction with a stricter scrutiny of new projects by the New Industries Committee, building control is to be tightened as an interim measure;

(ix) the public is urged to spend less and save more. Further measures to promote this object will be taken if necessary. Wage restraint is recommended, and the Prime Minister appeals to trade unions to continue this policy;

(x) commerce is urged to keep down its mark-ups on imported goods;

(xi) an investigation into rising food prices is to be undertaken; and

(xii) although opposed to price control as a measure merely affecting the symptoms of inflation, the authorities are to look into the possibility and desirability of extending price control on household requirements.

On the 13th October, it was announced that the R50 million Van Der Kloof Dam, the second in the Orange River Project, for which tenders had been called, was to be postponed until further notice.

Observations: Judging by the fall in the rate of increase in prices, the authorities succeeded admirably in their aim to defeat inflation. Since

June, 1966 they focused attention on the necessity to finance Government expenditure from non-inflationary sources, and later that year announced their determination to reduce public sector expenditure. The statistics below give some indication of how they fared.

TABLE 14.

Exchequer Account.

(R millions)

	Year ended 31st December			
	1965	1966	1967	1968
Total net receipts excluding borrowing	1 279,4	1 370,8	1 598,2	1 711,9
Total net issues excluding borrowing	1 616,3	1 670,4	1 840,5	2 105,3
Total deficit excluding borrowing	-336,9	-299,5	-242,3	-393,4
Financing:				
Change in net indebtedness to:				
Foreign sector (1)	36,8	-27,1	-35,5	-4,1
Private non-bank sector	5,9	150,8	185,2	332,1
Loan Levies (2)	(-3,1)	(23,2)	(57,6)	(86,2)
Other Government securities	(-2,8)	(127,6)	(127,6)	(245,9)
Public Debt Commissioners	146,5	97,6	159,4	241,7
Paymaster-General and social security funds (3)	10,7	-17,4	——	——
Monetary banking sector	148,7	95,8	-66,8	-176,3
Change in holdings of government securities	(145,8)	(226,8)	(-22,7)	(158,1)
Change in Exchequer balance (4)	(2,9)	(-131,0)	(-44,1)	(-334,4)
Total Financing	336,9	299,5	242,3	393,4

Notes: (1) Excluding stock on foreign register held by the Public Debt Commissioners but including registered stock held by foreigners.

(2) Including small amounts held by the monetary banking sector.

(3) In the case of social security funds the item comprises relatively insignificant amounts invested directly in stock and not via the Public Debt Commissioners.

(4) Increase -, decrease + . Adjusted for investments abroad and changes in the Stabilization Account.

Source: SARB Supplement to the Quarterly Bulletin December, 1971. "Selected South African Capital Market and Government Finance Statistics for the Period 1946 to 1970."

In the first instance, it should be noted that the size of the deficit to be financed fell in 1966 and again in 1967. On top of this, during these two years the authorities succeeded in reducing their indebtedness to the foreign sector and to the monetary banking sector. Thus in comparison to the financing operations during 1965, the authorities engineered a marked improvement in the manner in which it financed its expenditure.

As regards the level of Government expenditure, the point was made in Chapter V that there is no evidence of anti-cyclical Government expenditure.

UPSWING: JANUARY 1968 TO DECEMBER 1970.

Introduction: The tempo of economic activity mounted slowly during the first half of 1968. Thereafter the economy gained a momentum which was maintained, with the exception of a period of relative slack about the end of November, 1969 through to February, 1970. In fact, it has been estimated that real GDP increased by 4,0; 7,1 and 4,5 per cent during 1968, 1969 and 1970 respectively (1). In these circumstances the rates of change of prices were not that high by today's standards, but became a major cause for concern when they began to accelerate towards the end of the period under review. Looking at consumer prices, as reflected in the consumer price index, during 1968 they rose by 2,7 per cent, in 1969 they rose by 3,5 per cent and they were 4,2 per cent higher in 1970. Should the influence of the sales duty on prices be removed, the consumer price index between December, 1968 and December, 1969 showed a relatively small increase of 2,6 per cent, and substantiates the statement above that, bearing in mind the real rates of growth, the rates of inflation during 1968 and 1969 were not excessively high relative to what has come to be expected more recently.

It was private and general Government consumption expenditure, together with merchandise exports, which provided the initial boost to the economy. The rate of consumption expenditure by both sectors accelerated between the first quarter of 1968 and the third quarter of 1970. Gross fixed investment, with the presence of unutilised capacity and the attractiveness of other outlets for funds, was not stimulated until the fourth quarter of 1968 and then moved strongly forward until the second quarter of 1970. The levels of inventories

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(1) The Governor of the Reserve Bank did comment, however, that although the growth rate for the year ended June, 1970 was high, it was not satisfactory in that most of the increase in economic activity was concentrated in fixed property development and in the provision of financial and other services, whilst sectors responsible for the production of goods did not expand satisfactorily. (SARB Annual Economic Report 1970 p 7.)

carried had fallen substantially during the second and third quarters of 1968.

During this phase, unemployment figures dropped to very low levels. Figures, seasonally adjusted, for registered White, Coloured and Asiatic unemployed declined from about 14 500 at the beginning of the period to near 8 000 by the end of the upswing. The demand for skilled labour was particularly strong and may explain part of the increase of 12,8 per cent in the total remuneration of employees during 1970.

As regards the balance of payments, foreign reserves increased sharply until the second quarter of 1969 and thereafter maintained a downward trend until the end of the period under review.

A factor causing concern to the authorities was the level of liquidity present in the economy. As will be seen, a monetary environment had developed which was conducive to inflation. It was estimated that the ratio of money and near-money to GDP rose during 1968 and ended the year at 33,7 per cent. The total quantity of money and near-money held by the private non-bank sector rose by 10,3 per cent during 1969 as compared with an increase of greater than 20 per cent estimated for 1968. This total quantity of money and near-money, seasonally adjusted, increased sharply from early 1970 and peaked about July before tailing off. The ratio of money and near-money to GDP, seasonally adjusted, having fluctuated during 1969 and the first half of 1970 fell quite sharply for the remaining months of 1970.

Policies Pursued: The Budget presented in March, 1968 was intended to be deflationary:

> "if any relaxation should become possible in the coming months, it would have to be gradual and, in the first instance, confined to

> measures which can be easily reversed if inflationary forces should again emerge. Fiscal measures are not easily or quickly reversible and consequently no general relaxation of fiscal policy can be contemplated in this Budget." (2)

It was not considered advisable to use the surplus attained on Revenue Account, estimated at R43 million for the year 1967/68, to finance ordinary Government expenditure during 1968/69.

It was announced, however, that Government employees, having received no general improvement in service conditions for more than two years, were to receive certain benefits. It had also been announced, just prior to the Main Budget Speech, that employees of the South African Railways and Harbours were to receive certain wage and salary concessions.

The estimates of expenditure which were tabled on both Revenue Account and Loan Account were approximately 7 per cent and 3 per cent, respectively, higher than the revised estimates for 1967/68.

No major tax changes were announced.

As regards monetary policy, the authorities' concern was directed at the level of liquidity in the economy - the rates of increase in money and near-money were given above. Bank credit to the private sector and, up until April, 1969, the increases in the level of reserves had played major roles in causing the excessive liquidity. In May, 1968 the Reserve Bank instructed all monetary banks to ensure that, from the end of the month, their level of certain specified investments with the private sector did not exceed that level ruling at the end of March, 1968. It had become apparent that the banks were side-stepping the

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(2) Minister of Finance in the 1968/69 Budget p 5.

ceiling control through investment in the private sector. It was, however, necessary to announce concessions with respect to this new regulation as banks had certain future commitments in respect of such investments.

In addition to their attempts to decrease the level of liquidity, the authorities sought to hold money market rates at their prevailing levels. The Treasury bill rate, for example, was kept around 5 per cent. The authorities endeavoured to achieve this objective through four methods: through the issue of tax-free Treasury bonds to private individuals as from the 15th September, 1967; Secondly, the Treasury borrowed in excess of its requirements and sterilised the proceeds with the Reserve Bank; the Reserve Bank provided Land Bank bills to the discount market on a special repurchase basis; and finally, the Bank encouraged commercial banks to invest more short-term funds abroad under the so-called 'swop' arrangements.

The Reserve Bank instructed all monetary banks at the end of April, 1968 to deposit 12 per cent and 20 per cent of the increase in their short-term liabilities to the public after the end of March, 1968 with the Reserve Bank and NFC respectively. It was felt necessary to reinforce the existing controls as Government deposits were due to begin their seasonal decline and gold and foreign exchange reserves continued to increase. These deposits were in addition to their normal minimum reserve balance which was equal to 8 per cent of these liabilities.

Notwithstanding these measures, the Treasury bill rate and other short-term interest rates began to decline slowly. As from the 28th June, 1968, in conformity with these trends, the Reserve Bank decreased certain of its rates for Government securities.

The various policy measures pursued subsequent to these developments may be summarised as follows (3):

(1) The relaxation of import and credit controls had been delayed as the authorities had decided to discontinue selling gold following the Washington Agreement in March, 1968. In these circumstances, the authorities were keen to hold high levels of gold and foreign exchange reserves. On the 18th July, however, the Minister of Finance announced that gold had been sold to monetary authorities and on the free market, and that exchange control relaxations were being considered.

(2) On the 31st July, 1968 exchange control relaxations were announced.

(3) Further to the relaxation announced in June, import controls were again eased.

(4) Building control was partially relaxed on the 21st August.

(5) Concessions to building societies were announced in February and August, 1968 to improve their ability to compete for funds. The Treasury's tax-free 6 per cent bond issue was to be terminated from the 14th September. The issue thereof, however, was resumed in February, 1969.

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(3) See Hupkes, G.J. and Dickman, A.B. "Prospects for 1969." (Bureau for Economic Research, Stellenbosch, 1969.)

(6) On the 27th August, Bank rate was reduced to 5½ per cent and it was emphasised that banking institutions were expected to follow by lowering their lending and borrowing rates. The credit ceiling was reinstated at the level of March, 1965; that is, the 7½ per cent reduction introduced in 1967 was removed. It was announced that most concessions to the private sector would be included within the new ceiling which would be strictly enforced. A concession to 'small businesses', however, was announced in that banks were allowed to extend an additional 1 per cent of the new ceiling to this sector.

(7) On the 19th September, the Reserve Bank announced downward adjustments in its pattern of rates for short and medium-term Government stock. The long-term rate remained unchanged at 6,5 per cent.

(8) In March, 1969 a concession in respect of the credit ceiling was granted to the agricultural sector to enable them to obtain further finance from the banking sector.

It was felt that direct controls on credit were essential in the light of existing financial and monetary developments. In fact, the authorities felt that the need for direct control over credit extension to, and investments with, the private sector had been intensified by the gold marketing problem in that the authorities were "unable to make full use of the obvious method of reducing internal liquidity, namely, through measures which have a direct bearing on the balance of payments." (4)

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(4) The Governor of the SARB in his Report to the Forty-ninth Ordinary General Meeting of Stockholders 1969 p 9.

In the Budget Speech delivered on the 26th March, 1969 it was stated that, in view of the current economic situation, it would be dangerous to reduce the general level of taxation to any great extent.

Expenditure on both Revenue and Loan Account was quite markedly higher than the previous year's figures. In announcing these proposed expenditures, the Minister of Finance expressed the view, with respect to the Revenue Account proposals, that:

> "This increase is greater than I should have liked to see, but the House will realize that Departments have now been held on a tight rein for several years, even with regard to essential services, and that with the rapid growth of the national economy a measure of expansion is inevitable." (5)

In a similar vein he explained that the backlog in basic capital works had become that serious that further postponements were impossible.

The main feature of this Budget was the reform to the tax structure. The changes tabled followed the recommendations contained in the First Report of the Franzsen Commission. The most important changes were that the progression of direct tax on individuals would be reduced, and that the base of the indirect tax structure would be broadened via the introduction of a selective sales duty.

The Minister of Finance again emphasised the importance of financing the proposed expenditures from non-inflationary sources.

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(5) Minister of Finance in the Budget Speech delivered on the 26th March, 1969 p 13.

Other major changes in the Budget are given briefly below:

(i) company tax (excluding gold and diamond mines) was increased to 40 per cent. The loan levy on companies was withdrawn. (The loan levy on gold and diamond mining companies was to remain unchanged.)

(ii) an individual who paid more than R100 in basic income tax to the Central Government was required to contribute a 5 per cent loan levy. This replaced the 15 per cent levy which had been in operation. However, a 5 per cent surcharge was levied on normal income tax paid by these individuals.

(iii) Government officials were to receive "improved service conditions", the estimated cost of which was R18,5 million.

In August, 1968 the authorities expressed their keenness to move from the ceiling method of credit control to control based on liquid asset and reserve requirements. A step in this direction was made when in February, March and May, 1969 increased liquid asset requirements were called for in respect of all banking institutions. Despite the fact that these measures reduced the banks' excess liquid assets, and that since April, 1969 the gold and foreign exchange reserves had been falling, the authorities felt it unwise to rescind the credit ceiling. They did, however, raise the ceiling, which applied to certain of the discounts and advances of the monetary banks, with effect from the 1st September, 1969, from 100 to 110 per cent of its March, 1965 level.

At the same time the ceiling was raised, the Governor of the Reserve Bank repeated his request to banking institutions to ensure that preference was given to satisfying credit requirements of the agricultural and manufacturing sectors of the economy and for bridging finance which might be required to

promote private fixed investment. It was evident then that much of the credit extended had been used for speculative purposes. The index of shares prices (1963 = 100) rose from 152 in December, 1967 to 281 in May, 1969 before declining.

A further concession was granted to the banks in August when it was announced that they could decrease the proportion of reserve balances which had to be kept interest-free with the Reserve Bank and increase the proportion which was held with the NFC. This change was made to relieve the pressure on lending rates.

Competition for deposits had grown. This competition for funds is partly explained by the reduced level of surplus liquid assets, which arose as a result of the increases in the required holdings of liquid assets, combined with the continued substantial level of credit extended. The situation was aggravated by the fact that building societies increased their deposit rates in July, 1969 and were granted further concessions by the Minister of Finance to enable them to compete more aggressively for funds.

To prevent this rising cost of funds from exerting excessive pressure on the mortgage and bank lending rates, the Reserve Bank on various occasions requested the banks and building societies to maintain a maximum rate of 7 per cent on deposits.

The authorities gave their reasons for not allowing interest rates to rise as follows:

> "In the first place, there is still concern regarding the failure of private fixed investment, particularly in manufacturing, to attain the level required for the continuing growth of the economy. Higher interest rates will certainly not encourage expansion in this sector. Secondly, South Africa's balance of payments position is still

basically sound, and its gold and foreign exchange reserves are at a high level. In the circumstances, therefore, it is not necessary to raise domestic interest rates in order to prevent a net outflow of funds due to the high level of interest rates abroad. Thirdly, ... significant changes are taking place in the domestic money and capital markets, and it is possible that fixed interest investments may become more attractive.

It is expected of the banking institutions, therefore, that their lending rates will not be increased - a step which is not considered to be in the country's interest at this time, and which will certainly further the arrangement of loans outside the banking system in the so-called 'grey market'. The maintenance of their present lending rates also means, of course, that it would be undesirable for the banks to become involved in an interest rate war in respect of their deposits and, in this connection, the co-operation of the building societies is important. The latter, after recently receiving further concessions from the Treasury in regard to their tax-free shares and their savings deposits, have made it known that they do not intend to raise their mortgage rates." (6)

Further adjustments to the levels of the ceilings were as follows:

(i) with effect from the 1st January, 1970 the ceiling on discounts and advances was raised to 115 per cent of its March, 1965 level. Earlier concessions announced to certain borrowers were generally to remain outside the ceiling;

(ii) with effect from 1st June, 1970 this ceiling was raised to 118 per cent;

(iii) the ceiling on certain investments in the private sector was also raised in February, 1970 from 100 to 115 per cent of its level as at 31st March, 1968.

The Reserve Bank did strive to guide the newly-permitted credit extensions to, primarily, the manufacturing and farming sectors.

In February, 1970 the Reserve Bank announced a reduction in liquid asset

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(6) The Governor of the Reserve Bank in his Report to the Forty-ninth Ordinary General Meeting of Stockholders 1969 pp 12 & 13.

requirements, in respect of short-term liabilities, from 48 to 45 per cent. In May, 1970 they announced a decrease in respect of medium-term liabilities from 30 to 28 per cent.

In the Budget presented on the 12th August, 1970 the banks were released of their 'obligation' to maintain deposit rates below 7 per cent. The Governor announced the implementation of a scheme of subsidies which would prevent "undue hardships to those sectors of our community which are particularly sensitive to changes in rates." (7)

Further implications of the Budget relevant to stabilization goals are summarised briefly below:

(i) investment allowances were re-introduced to stimulate fixed investment in manufacturing industry;

(ii) more generous exporters' allowances were proposed;

(iii) certain increases in sales duties were announced;

(iv) the loan levy on individual taxpayers in the middle and higher income groups was increased from 5 to 10 per cent;

(v) the importance of financing Government expenditure from non-inflationary sources was re-emphasised. The Minister of Finance felt that the authorities would more easily be able to accomplish this goal as the State "will itself be able to compete more aggressively in the local capital market for the funds it requires." (8)

The discounts, advances and certain private sector investments of the non-monetary banking institutions were brought under a ceiling with effect from the 1st September, 1970. This step was taken to prevent the occurrence of a deposit rate war following the freeing of interest rates.

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(7) The Minister of Finance in the 1970/71 Budget p 10.
(8) The Minister of Finance in the 1970/71 Budget p 11.

It was estimated that private consumption expenditure increased during 1970, for the third successive year, by approximately 10 per cent. The increase in the sales of durable and semi-durable goods explained a large proportion of the rise in private consumption expenditure. In these circumstances it was decided in October, 1970 to impose stricter hire-purchase requirements in respect of the sales of these goods. In certain respects these restrictions were relaxed as from the 27th November, 1970 after they had exerted a marked impact on the sale of durable goods.

Observations: The manner in which Government expenditure was financed since the middle of 1969 was inappropriate bearing in mind the rate of price increases. This is readily apparent from the table below as the Exchequer increased its debt to the foreign sector and to the monetary banking sector. The private non-bank sector reduced its holdings of Government debt.

> "it seems clear that since the middle of 1969, the large increase in public spending and the use of inflationary methods of finance by the public sector have contributed materially to the inflation and balance of payments disequilibrium." (9)

(9) The Governor of the Reserve Bank in his Report to the Fifty-first Ordinary General Meeting of Stockholders 1971 p 8.

TABLE 15.

Exchequer Account.

(R millions)

		Total surplus/deficit excluding borrowing	Financing of expenditure: Change in net-indebtedness to: Foreign sector (1)	Private non-bank sector (2)	PDC	Monetary banking sector (3)(4)
1968	1	-223,6	-15,4	127,0	56,1	55,8
	11	-102,7	12,0	55,7	150,9	-115,8
	111	-71,2	6,5	121,6	12,8	-69,7
	1V	4,1	-7,3	28,1	21,8	-46,6
1968		-393,4	-4,2	332,4	241,6	-176,3
1969	1	-218,2	8,5	94,5	46,7	68,6
	11	-46,1	7,9	67,7	127,1	-156,6
	111	-54,5	-5,9	-8,5	2,5	66,6
	1V	-45,0	21,4	-11,9	9,4	25,9
1969		-363,8	31,9	141,8	185,7	4,5
1970	1	-246,2	27,8	12,5	150,0	54,9
	11	-22,9	27,1	-9,1	7,1	-2,3
	111	-50,9	48,8	19,2	-3,7	-13,4
	1V	-94,7	24,6	13,6	17,2	39,3
1970		-414,7	128,3	36,2	171,6	78,5

Notes: (1) Excluding stock on foreign register held by the PDC but including locally registered stock held by foreigners.

(2) Including small amounts held by the monetary banking sector.

(3) Refers to institutions within the monetary banking sector, i.e. the South African Reserve Bank, commercial banks, merchant banks, the NFC, discount houses and the short-term business of the Land Bank and certain other banking institutions.

(4) The change in the Exchequer balance was adjusted for investments abroad, changes in the Stabilization Account and advances to the PDC. (The net indebtedness to the monetary banking sector equals their holdings of Government securities less the increase in the Exchequer balance.)

Source: SARB Supplement to the Quarterly Bulletin December, 1971. "Selected South African Capital Market and Government Finance Statistics for the Period 1946 to 1970."

According to the Governor of the Reserve Bank (10), the additional credit extended by the banks, following the raised credit ceiling, went to finance a high level of imports, rapid inventory investment, the sustained high level of private consumption expenditure and a continued high level of activity in fixed property development. This does illustrate the impotence of moral suasion as the authorities had requested that the additional credit should be used to assist the agricultural and manufacturing sectors.

He also acknowledged the fact that the 'grey market' had become very active. This should have been expected, however, bearing in mind the ceiling method of credit control, pegged interest rates and a highly liquid economy.

In the discussion of the control of domestic credit creation in Chapter 1V, it was established that the monetary authorities could decide to control either the level of domestic credit or its price, but not both. Relating back to that discussion it should be noted that the discount houses relied on Reserve Bank accommodation extensively from January, 1970. To discourage this excessive use of central bank credit, the authorities applied progressively higher penalty rates to discount house borrowing. A penal rate of 2 per cent above bank rate was reached in September, 1970.

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(10) The Governor of the Reserve Bank in his Report to the Fifty-first Ordinary General Meeting of Stockholders 1971.

DOWNSWING: JANUARY 1971 TO OCTOBER 1972.

Introduction: The rate of increase of gross domestic product at constant prices, excluding the value added by the agricultural sector, declined from 4,8 per cent in 1970 to only 2,8 and 3,3 per cent in 1971 and 1972, respectively. The average annual rate of increase in real GDE slowed down to 0,1 per cent in 1971 and 1972.

The index of consumer prices over the year 1971 was 5,7 per cent higher than the corresponding figure for 1970, and from December, 1971 to December, 1972 the consumer price index rose by 7,4 per cent.

During 1971 the tight labour situation eased. The level of registered unemployed Whites, Coloureds and Asiatics did fall, however, towards the end of 1972, but it was felt then that the labour market still offered scope for expansion.

It was estimated that the quantity of money and near-money increased at a slower rate than GDP in 1971. The ratio between these quantities consequently declined from 30,8 per cent in 1970 to 29,7 per cent in 1971. During 1972 the quantity of money and near-money increased by approximately 14 per cent.

The balance of payments on current account was substantially in deficit during 1971 but showed a slow steady improvement as the year wore on. Up until August, as the steady improvement in current account was accompanied by large capital inflows, there appeared to the authorities no need for action despite the fact that the level of gold and foreign exchange reserves were falling. The situation, however, changed drastically after the 15th August, 1971 when the United States announced the suspension of the convertibility of the dollar into gold and that a 10 per cent surcharge on imports would be levied.

Amidst exchange rate uncertainties South Africa's gold and foreign exchange reserves fell to the low level of R570 million at the end of November, 1971.

The authorities reacted by imposing stricter import controls on the 24th November. They then decided to devalue the rand by 12,28 per cent as from the 21st December, 1971 following the general re-alignment of world currencies. This step was taken to boost the economy and, obviously, to improve the balance of payments position.

During the second and third quarters of 1972, the seasonally adjusted balance on current account was positive. Gold and other foreign reserves climbed sharply to end the period at a value of R1 061 million.

Policies Pursued: During most of 1971 deflationary policies were continued and even made more stringent. Prior to the March Budget, additional sales taxes were imposed, and an additional tax on petrol was announced by the Minister of Economic Affairs. In announcing the Budget, the Minister of Finance stated his intention to encourage saving and to restrain excessive consumption expenditure which he regarded as the "most important factor in the inflation of prices." (1) Accordingly, the surcharge of 5 per cent on personal income tax was raised to 10 per cent and an additional loan levy was imposed. A further loan levy of 5 per cent on all taxes payable by companies, except gold and diamond mining companies, was instituted along with a loan levy of 7,5 per cent on the dividend receipts of companies. Increased customs and excise duties were estimated to yield an additional R87 million.

On the evening prior to the Budget, the Governor of the Reserve Bank had

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(1) The Minister of Finance in the Budget Speech delivered on the 31st March, 1971 p 3.

announced an increase in Bank rate from 5,5 to 6,5 per cent and yields on short-term and long-term government securities were raised from 5,5 to 6,5 per cent and from 7,75 to 8,5 per cent respectively.

Apart from a relaxation of 2 per cent in respect of credit extended to the agricultural sector, the credit ceilings were, in general, strictly applied during 1971.

Hire-purchase terms were for the first time made applicable to private commercial vehicle sales in September, 1971.

Despite the expected expansionary impact of the devaluation, the sluggishness in the eoconomy continued during 1972. The Minister of Finance in the 1972/73 Budget, besides announcing the Government's planned revenue and expenditure for the fiscal year, set out a programme of action to:

(i) improve the balance of payments;

(ii) speed up the growth rate "within the particular social and economic structure of the South African community" (2);

(iii) and curb the rate of inflation.

The programme encompassed the following policies:

As regards monetary policy, banks would be permitted to exceed the ceiling figures applicable to their discounts and advances by 5 per cent, and those applicable to their investments by 10 per cent. Deposit rate controls were applied to prevent interest rates from rising. It was announced that the Reserve Bank would continue its recent policy of giving favourable attention

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(2) The Minister of Finance in the Budget Speech delivered on the 29th March, 1972 p 4.

towards applications for foreign borrowing for industrial and mining development purposes.

Saving was to be encouraged through improvement to the attractiveness of State channels of saving, and by the introduction of a home-owners saving scheme.

The Minister of Finance exhorted organized labour to exercise moderation and responsibility in wage negotiations, i.e. to gear wage increases to productivity improvements.

Import controls were to be relaxed as the current account of the balance of payments improved. The Minister of Finance promised, however, that these relaxations would not cause disruptions to local industries. Adequate protection would be provided by custom tariffs. Where the size of the tariff was limited by commitments under the GATT, import restrictions would be maintained until the Minister of Economic Affairs had re-negotiated their levels.

Exporters were to be given added assistance to improve the export effort.

The minimum down-payment on the purchase of passenger cars was reduced from 40 to 33,33 per cent.

And, finally, building controls were suspended.

As regards budgetary measures, the Minister of Finance stated his intention to reduce the rate of increase in State expenditure and to finance the expenditure from genuine savings. He also set out to revise the tax system to minimise impediments to greater production and to promote the export drive.

The investment allowances in operation were extended up to the 30th June, 1975. Details of increased levels of 'allowable' expenditure on the development of export markets were announced. Furthermore, sales duties were reduced as were the combined personal marginal income tax and loan levy rate (the loan levy was replaced by an additional surcharge on income tax). The loan levy on dividends received by companies was reduced.

To finance the deficit it was thought appropriate to run down the Stabilization Account to the tune of R161 million. (As it turned out, the money derived from taxpayers and subscribers to Government debt substantially exceeded expenditure requirements, including the early repayment of the 1967 loan levy, and the authorities deposited R264 million in the Stabilization Account during the year ended 31st March, 1973.)

On the 10th August, 1972 Bank rate was reduced from 6,5 to 6 per cent. This was accompanied by a reduction of 0,25 per cent in the quoted pattern of rates for Government securities. These yields were further decreased on the 8th September. During October a further relaxation of hire-purchase restrictions was announced, and credit ceilings were rescinded as from the 1st November.

On the 17th November, 1972 reductions in sales duties, particularly on certain consumer durable goods, were announced.

As the level of gold and foreign exchange reserves continued to rise during 1972, it was decided, as intimated in the Budget, to relax import controls. In fact, they were relaxed on three occasions: 3rd June, 25th July and on the 25th October.

As from the 30th June, 1972 the rand was linked to sterling as it floated

downwards. On the 25th October, however, the link with sterling was broken and the authorities announced a new par value for the rand in an attempt to reduce the rate of increase in the prices of imported goods.

Observations: Given the authorities' frequent inability to finance Government expenditure in a desired manner, the rate of increase in this expenditure was probably too high. Salary and wage adjustments were largely responsible for an increase of 20 per cent in current expenditure by general government during 1971. The necessity of improved conditions of employment is not doubted, but alongside these improved conditions one would have liked to have seen greater efforts to improve the productivity of the public sector. It is well known that the public sector is particularly loath to sack anyone and that their general productivity has always been extremely suspect.

Owing to the high rate of inflation, deflationary policies were pursued and made more stringent during 1971. The change in strategy, following the devaluation, to policies geared to improve the level of real GDP illustrates the sensitivity of the authorities to below full capacity utilisation of resources. It also illustrates the authorities' employment of stop-go tactics - tactics which react to present conditions rather than strive to anticipate, and then improve, future conditions.

According to the monetary approach to the balance of payments, as interpreted by Professor Johnson, an exchange rate adjustment is likely to be at best 'transitorily' appropriate. The impact of devaluation on the level of prices was substantial. The balance of payments certainly did improve, but to what extent this was a result of the devaluation is not known. Professor Botha (3) queried both the necessity to devalue and the size of the

(3) Botha, D.J.J. "Some Thoughts on Devaluation." SAJE 1972 Vol 40 pp 197 - 208.

devaluation. He maintained that such a drastic irreversible measure with pervasive and uncertain impacts could have been avoided if the authorities had presented a bold front that they would maintain the value of the rand. Further support for this view is provided by the fact that the rate of increase in the value of imports began to fall and exports started climbing prior to the devaluation.

Allied to Assocom's concern for the productivity in the public sector, mentioned above, is the general concern over the utilisation of labour in the economy as a whole. Mr Emdin, shadow Minister of Finance for the United Party, warned the Government to relax constraints on the utilisation of labour in South Africa.

> "We warned the Government and we warned the honourable the Minister that he will never solve his problems adequately unless he tackles the labour situation and stops relying entirely on trying to reduce consumption." (4)

Figures (5) illustrating the gains in productivity in the manufacturing sector, for example, during the late sixties and early seventies certainly give cause for concern, and add weight to Professor Botha's recommendations that the Government should "take a hard look at its labour policy generally which, through measures such as the Physical Planning Act and others, has created uncertainty in the minds of many industrialists, a fact which may partly account for the poor performance of industry in the recent past." (6)

The Minister of Finance and his advisers failed to forecast accurately the amount of revenue from various sources during the fiscal year 1972/73. Instead

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(4) Emdin, S. Reply to the first reading of the 1971/72 Budget p 26.
(5) Estimates of productivity are provided by the Board of Trade and Industry in their annual Reports.
(6) Botha, D.J.J. op cit p 208.

of, as anticipated, running down the Stabilization Account balance to finance the deficit, they were able to increase this balance substantially.

CHAPTER VIII.

CONCLUSION.

As has been seen, the South African economy has experienced wide fluctuations in its level of foreign reserves, unutilised and overworked capacity in sectors of the economy, and recently an accelerating rate of inflation. Examination of the cyclical and trend components of these economic time series could lead to a judgement on the appropriateness of stabilization policies pursued in South Africa; one could even hazard a superficial inter-national comparison of the wisdom of various stabilization authorities by comparing time series data from different countries. These simplistic approaches, however, beg a fundamental question, and that is whether, in fact, the South African authorities have pursued a stabilization policy at all. By stabilization policy is meant economic policies not at variance with the estimated long-term steady state requirements of the South African economy. The authorities would seem to have reacted to events pursuing a 'stop - do nothing - go' or ad hoc policy - the brief review of policy in Chapter VII certainly gives this impression. There is, after all, no official economic forecast and the discretionary policy changes seemed to be aimed at short-term improvement in the economy's performance. Yet the underlying theme running throughout the discussion of instruments of stabilization policy was that theoretical insight has not progressed far enough to enable these instruments to be employed in attempts to stabilize the economy in the short-term.

It is understandable that no planned stabilization policy has been pursued. The practical problems of changing inflationary expectations are enormous - price and incomes policies, designed to achieve this end, have not proved feasible either in the United States or in the United Kingdom as a result of

trade-offs in other policy objectives. Moreover, it is widely held amongst economists that in the long-run the domestic rate of inflation adjusts to the world rate of inflation where exchange rates are not free to float with market forces. On top of this, optimal steady state growth paths are not known with any exactitude. Notwithstanding these acknowledged difficulties, the important point remains that had the South African authorities been more realistic about what they could accomplish and been more wary of their capacity to fine-tune the economy, certain negative impacts of policy on economic performance may have been avoided. For example, the monetary policies pursued have certainly curtailed the competitive evolution of the financial sector.

In this light it is suggested that fiscal policy should be designed to achieve structural changes in the economy in the long-term and Government expenditure should be financed in a manner consistent with monetary policy objectives. Given the normal balance of payments constraint, excessive pressure on local resources by domestic and foreign demand is to be avoided. If Government expenditure is financed from genuine saving, domestic private sector demand is obviously reduced. As the Government is concerned with the level of resource utilisation over time, greater attention should be paid to the planning, co-ordination and efficiency of public sector expenditure. Attempts to pursue an anti-cyclical Government expenditure programme have failed, and are likely to fail.

The important consideration for monetary policy is what happens to the quantity of money, and not what happens to interest rates. Domestic credit should be made to expand at some constant rate - an idea propogated by Friedman and others.

> "Retardation of inflation requires credit expansion rates to be limited to real output expansion rates (adjusted for non-unitary income

elasticity of demand for real balances) under either fixed or flexible exchange rates." (1)

The level of domestic credit should be controlled through open-market operations. With increased flexibility in the return on public sector debt, the need for a captive market would be eliminated.

It has been argued that a floating exchange rate together with conrol of domestic credit will provide the key base of anti-inflationary policies. Friedman (2) believes that there are two options open to developing countries. A country may link its currency to the currency of one of the major developed nations, one with which it conducts the largest amount of trade. The developing country then subjugates its monetary policy to that of the developed country. The second option entails the formation of a national foreign exchange market to permit a freely floating exchange rate. Friedman feels the first option to be more satisfactory as the developed country is more likely to pursue a better monetary policy than the developing country.

In the light of these recommendations the South African authorities need to reconsider the rand's link with the dollar as trade with America is insignificant relative to trade with Europe. Secondly, they should review the Franzsen Commission's decision (3) not to establish a South African foreign exchange market.

Laidler's prescription to reduce the modern secular rate of inflation involves flexible exchange rates:

"Adopt a flexible exchange rate and rely on the rate of monetary

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(1) Mundell, R.A. "Colloquium on World Inflation." Economic Notes Monte Dei Paschi Di Siena, January - April, 1973 Vol 11 No 1 p 94.
(2) Friedman, M. "Contemporary Monetary Problems." Economic Notes Monte Dei Paschi Di Siena, January - April, 1973 Vol 11 No 1 pp 5 - 16.
(3) Franzsen Commission (Third Report) paragraph 499.

> expansion to achieve, in the long run, the inflation rate desired; recognise that the inflation rate can only be reduced at the cost of unemployment during the transition, so proceed slowly towards the target; recognise that the amount of unemployment required over a given period to reduce the inflation rate by a given amount is less the more efficient are labour markets, and the less is the structural imbalance in the economy, and also that much of the harm that inflation can do may be ameliorated by policies to compensate the losers; hence pay much more attention than hitherto in designing policies to deal with the structure of the labour market and to distributional inequities produced by inflation. In short, and above all, face up to the fact that inflation is not a problem for which some costless panacea is likely to be found just around the corner, and instead utilise the considerable knowledge that we already have of its nature to cure it at as low a cost as possible recognising that this cost will not be zero." (4)

It is recognised that the adoption of a freely floating exchange rate does not guarantee the achievement of a desired rate of inflation, but merely allows the country to experience any rate of inflation independently of what is happening elsewhere. A system of floating exchange rates is consistent with the removal of barriers to international trade, as countries need not defend unrealistic fixed rates. In any event, according to Johnson these barriers are, at best, 'transitorily' appropriate.

Not all economists favour freely floating exchange rates. Mundell is a well-known exponent of the advantages of fixed exchange rates. He has suggested that gold should be re-monetised (5) because the decision to increase the money supply has become a political decision and the political cycle is shorter than the economic cycle. A return to the gold standard would remove the political factors that have influenced the money supply and promote the essential confidence in the new unit of account.

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(4) Laidler, D. "The Current Inflation - The Problem of Explanation and the Problem of Policy." An S.S.R.C. Research Programme: Inflation: Its Causes, Consequences and Cures. University of Manchester July, 1972 p 17.

(5) Mundell, R.A. in a lecture given at LSE on the 1st February, 1974.

Under fixed exchange rates or 'dirty' floating the authorities do have the opportunity to begin a recovery from stagflation through increases in exports achieved by the maintenance of an undervalued exchange rate.

The negative view of the potential of discretionary stabilization policy presented above implies that the public must be educated to tolerate this seemingly passive role of the stabilization authorities, as the public have come to believe that control of the business cycle is feasible. If a government is obliged through political pressures to intervene on an 'activist' basis, then there is the appealing idea of establishing a politically neutral body of eminent economists, with power to order a review of policy packages where a majority felt them to be inappropriate. A further step to ensure political acceptability of economic policy simply geared to the level of domestic credit creation in the short-term is to establish policies to alleviate directly those people commonly thought to be suffering 'undeserved' losses as a result of inflation - as Laidler has advocated.

No comment on the economic implications of political, or rather social, ideologies is offered except with respect to legislation such as the Physical Planning Act which through the uncertainty it engenders amongst industrialists, may provide an explanation of their hesitancy to expand capacity.

It may be suggested that the application of the Physical Planning Act has varied with the business cycle - more severe restrictions on labour supplies in boom periods than during downswings. The problem with this policy, as with any other stabilization instrument, is getting the timing right.

Topics Requiring Further Study: The relative scarcity of detailed studies applied to the South African economy has complicated the writing of this study and the conclusions it has been able to draw. A number of topics have suggested themselves as highly suitable for more detailed investigation. Work could be undertaken to establish with greater certainty the relationship between the money supply, the balance of payments, the level of unemployment and prices in South Africa. The demand for money needs to be accurately specified. Effective controls over domestic credit would require detailed knowledge of the development of money substitutes and their impact on monetary control in South Africa. Before the present floating exchange rate system becomes firmly institutionalised, it would be desirable that research into methods of improving forward exchange markets be undertaken. Finally, investigation into the question of an optimum rand currency area may provide evidence which could modify monetary and exchange rate policies as presently practised in South Africa.

Summary: The impacts of policies pursued between 1960 and 1972 are uncertain in the short-term and may well have been inconsistent with the long-term requirements for the utopian steady state growth conditions for the South African economy. It is felt that improved economic performance could be achieved by floating the rand and by gearing short-term stabilization policy simply to attain a constant rate of growth of domestic credit.

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A B B R E V I A T I O N S.

BoE	Bank of England
NFC	National Finance Corporation
PDC	Public Debt Commissioners
SAJE	South African Journal of Economics
SARB	South African Reserve Bank