

Although much has been written in recent years on various aspects of the South African economy, to the best of our knowledge there is, as yet, no publication which deals comprehensively with the South African financial sector and its role in the economy. We believe that there is a need for the subject to be covered in some depth and it is our intention to publish in this and subsequent supplements of the Standard Bank Review a series of articles each of which will deal with one of the more important sub-sections of this sector.

The introductory article in this quarter's publication will be followed by articles on the following, and other financial institutions:

- The South African Reserve Bank,
- The Commercial Banks,
- The Discount Houses,
- The Merchant Banks,
- The Hire Purchase, General and Savings Banks, and
- The Land and Agricultural Bank.

Each article will be written by an authority in his field and will deal with the respective sub-section's historical background, its growth, its present-day functions and the problems affecting its operations in South Africa.

It is hoped that the series will prove of special interest to students of money and banking in South Africa.

—*Editor.*

The South African Financial Structure

by

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This article is intended to serve as an introduction to a series of studies of individual financial institutions. It will attempt therefore to give some overall perspective on the nature of the South African financial structure and the relationship of the institutions contained therein.

The nature of financial intermediation

A developed financial system is characterized by a wide variety of financial assets and liabilities. The more developed the system the wider will be the choice of alternative ways to lend or borrow. Such variety reflects attempts to satisfy the wealth owners of the economy as to the form in which to hold their wealth and to satisfy borrowers as to the nature of the indebtedness they wish to incur. The evolution of a financial system in a market type economy is determined in large part by the attempts of competing financial institutions and financial innovators to satisfy more completely, and to be rewarded for so doing, the increasingly specialised requirements of lenders and borrowers. Specialisation is always limited by the extent of the market; therefore, as the society's stock of wealth increases (with economic development) the scope for more specialised and diverse financial services is created. Indeed, the process of economic growth will depend on the availability of an efficient mechanism for transferring the savings of the economy to the spenders who are best able to put the extra resources to work. This is the vital task performed by the financial system, the task of attracting and allocating the savings of the community.

Different kinds of financial institutions may provide financial services of more or less distinctive character. However, all financial institutions have in common the fact that they are all largely financial intermediaries.

They intermediate between the so-called surplus units of the economy; typically households who wish to save a portion of their incomes, and the deficit units of the economy, typically firms, the government sector and other households who borrow in order to extend their command over resources for investment or consumption purposes. Other important sources of funds for South African borrowers are foreign lenders, including foreign financial intermediaries.

The success of any financial intermediary will depend on its ability to maintain a profitable margin between the costs of collecting savings and distributing them, and the revenue from so doing. In this they are like any other business enterprise. Furthermore, the profitability of any financial innovation is bound to encourage emulation which has the effect of narrowing profit margins and so improving benefits to savers and/or reducing costs to borrowers. Part of an intermediary's costs of production may include interest payments; other costs will be those of establishing and maintaining branches, paying salaries, hiring computers, advertising their services, and so on.

Financial intermediaries are faced with efforts to economise by both savers and users of funds. In addition, financial institutions not only compete with each other for

the receipt and distribution of loanable funds, they also compete for lending and borrowing custom by the use of financial securities issued directly by the deficit units to the wealth owners. For the wealth owner, government securities and mortgage bonds are alternatives to building society deposits and shares; a direct equity stake is an alternative to units in a mutual fund; and the notes issued by the Reserve Bank, which are in effect the non interest bearing debt of the government sector, may be preferred to commercial bank deposits. The securities issued by the deficit units themselves may be called primary securities. An intermediary issues its own financial liabilities or secondary securities in order to finance a portfolio of primary securities. Therefore to compete successfully with the possible direct transaction between surplus and deficit unit the intermediary must be able to offer advantages to both parties. The ultimate lenders must receive a higher real return from the intermediary than may be obtained directly and the borrowers must be able to borrow at lower real cost from the intermediary than they may be able to do directly. At the same time the intermediary must maintain a profitable margin between costs and revenue.

The economies of financial specialization

A financial intermediary is able to succeed in this by realising economies in the collection and distribution of a pool of savings. As in other spheres of economic activity specialisation of function leads to greater efficiency. Knowledge and experience gained in the appraising of risks and the selection of credit-worthy borrowers are an obviously beneficial result of financial specialization. There are also economies of size in financial operations. The use of computers would clearly seem to reduce the costs of maintaining a set of actively used current and savings accounts. Yet to realise advantages from applying computers and other mechanical aids demands a certain minimum scale of operation. Economies of scale may largely explain why commercial banking usually tends to be a highly concentrated activity. A branch banking network would seem able to provide a medium of exchange at lower costs than a banking system consisting of a large number of individual unit banks. A unit banking system makes proportionately for greater demands on an organised money market and specialist money dealers. This is so because in the case of a unit banking system a physical reallocation of cash from regions with surplus cash reserves to those generally short of funds is then required. A large branch banking network can largely perform these functions within the bank itself at presumably lower cost. Nevertheless, one should not presume that a branch banking network issuing demand deposits necessarily implies money in its most developed and final form. Another competing system may come to offer money at a lower real cost and so replace demand deposits. In some European countries a Post Office Giro system competes effectively with the commercial bank as a mechanism for transferring money. The Giro takes advantage of computers and the wide spread of post office branches. The credit-card system which is becoming increasingly prominent in South Africa is in turn, at least as far as the card-holder is concerned, a method of

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widening the acceptability and therefore the usefulness of bank deposits.

Above all, financial intermediaries seem able to realise their most significant advantages through an ability to pool, on the insurance principle, risks of default and loss. By attracting a large volume of funds an intermediary can diversify its portfolio by holding a wide range of financial assets issued by a variety of borrowers. A diversified portfolio tends to reduce aggregate risks of loss which may be passed on in the form of lower charges to borrowers. It also makes for greater benefits to lenders. Similarly, attracting a large number of depositors reduces the overall risks of net unexpected withdrawals of funds and enables the intermediary to operate with proportionately smaller liquid reserves, so increasing the aggregate return from a portfolio. An individual wealth owner seldom commands sufficient wealth to secure a well-balanced portfolio and so correspondingly greater risks need to be compensated for by higher returns which the borrower may be unwilling or unable to pay.

Unit Trusts and Financial Investment Trusts and Companies are in large measure financial intermediaries who offer the wealth owner a diversified equity portfolio. Unit Trusts are a relatively recent development in South Africa. The Mining Finance Houses, have long played a very important role in the South African economy and were established in the late 1880's to facilitate the raising of funds on the London money market for the purpose of financing relatively capital intensive gold mining on the Reef. An equity issued by a mining house or mining financial company provides the holder with a share of the income of a relatively diversified portfolio and is, therefore, less risky than a direct stake in the profits of an individual mining or industrial company. The parent mining group and mining finance companies issue their own equities and other liabilities in order to finance the operating companies under their wing. In so doing the group acts as banker as well as underwriter, issuing house and promoter. The primary financial task of the group is to make lengthy and therefore risky mining developments relatively independent of possibly unsympathetic capital markets.

Some of the more significant recent financial developments in South Africa have been in the field of hire purchase finance. Hire purchase is usually used by households for the purchase of consumer durables. Such purchases represent, in effect, investment decisions, often of a labour-saving nature, by the households; and by providing a flow of services over time, goods bought on hire purchase clearly improve the quality of family life even if such services are not included in the calculation of national income. It was considered by the Franszen Commission Report that since demand for hire purchase finance by households tends to be insensitive to the rate of interest charge, competition for funds from banks to finance hire purchase transactions introduces an unstable element into the financial system and needs to be discouraged.¹ However, this view overlooks important ele-

ments in the supply of funds for hire purchase financing. Hire purchase financing is clearly very risky and as such will act to restrain the volume of hire purchase transactions banks and the financial system generally will be prepared to finance. The longer experience of other countries with hire purchase financing and banking would appear to permit a benign attitude to such activities and moreover would not seem to justify official restraints on interest rate competition for the purposes of restraining the growth of hire purchase banks.

Successful lending innovations may often comprise two stages. Initially, when the venture is especially risky, the transaction will be a direct one between the financial entrepreneur risking his own wealth and the borrower, who by way of the development, has found a source of funds not previously available. If the venture proves successful and as experience is gained in the administration of the funds and as more is known about the detailed nature of the risks involved it may become worthwhile to expand the volume of this type of lending through borrowing. The direct transaction gives way gradually to financial intermediation. This was the manner in which hire-purchasing finance evolved in South Africa. More recent developments of a similar nature would appear to be taking place in the leasing of industrial machinery and equipment, and the factoring of ordinary debtor accounts, which are increasingly coming to be financed by financial intermediaries.

The characteristics of financial assets

Let us now consider more thoroughly the characteristics of financial assets that determine attractiveness to hold. Consideration will always be given to what may be described in a general way as the *transactions costs* involved in buying and selling an asset. These costs would include any imposition of taxes or stamp duties, brokerage charges, commissions and ledger fees, etc. It would also include the less obvious costs of acquiring information about any asset in question. In practice the high costs of acquiring information about all the alternative assets available in a financial market cause investment analysts and portfolio managers to specialize; for example, on a sector of the equity or property markets. The costs of acquiring information about current prices of an asset depend on the nature and organisation of the market for the asset. Any well-developed market will organise itself to reduce the costs of keeping buyers and sellers well informed. A good example of such organisation is the trading floor of a stock or commodity exchange where traders are able to hear all offers to buy or sell and can see the prices at which transactions are concluded. The fact that in South Africa, as in other countries, stock exchange prices are widely publicized further reduces costs of information. That newspapers and the S.A.B.C. consider it worthwhile to publish and broadcast ruling prices tells us something about the nature of the market for equities in South Africa. We will have more to say on this point below. In connection with transactions costs the convenience of the location of a bank, building society or

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1. See, Fiscal and Monetary Policy in South Africa. Third report of the Commission of Enquiry into Fiscal and Monetary Policy in South Africa. R.P. 87/1970 esp. para. 660-676.

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post office is a further consideration. The more convenient the location the lower the costs in time and transport expenses generally of making or withdrawing deposits. If an asset is to perform the functions of money transactions costs have to be kept low in comparison with the costs of using official money. This explains why commercial banks find it necessary to establish branches to attract additional deposits. Similarly, a wide spread of building society branches reduces the costs of using a building society account.

Another factor that will influence the attractiveness of financial assets will be, what may perhaps be called somewhat clumsily, their *divisibility*. Financial intermediation may be of an essentially retail or wholesale character. The retail intermediary deals with the public and business community at large. Transactions may be numerous and of small denomination. Indeed some financial institutions are rather more like department stores than conventional retailers in that they provide a variety of financial services such as, for example, the range of financial services provided by South African commercial banks. Other financial institutions, for example, merchant banks, may, as wholesalers do, prefer to specialize and deal with fewer but more important customers, both as lenders and borrowers. Some intermediaries, for example discount houses and reinsurance companies, specialize in providing services to mostly other intermediaries and therefore only indirectly serve the surplus units of the economy. Other comparisons can be made between a direct transaction on the stock exchange, which is usually of a fairly large minimum amount, and one with a mutual fund which may be of much smaller value. Again, transactions in physical property and mortgage bonds usually tend to involve fairly large sums. Clearly, other things being equal, the more divisible an asset the wider will be the market for it. In this connection one may mention Participation Mortgage Bonds and Schemes which are particularly important methods of financing commercial and industrial fixed property holdings in South Africa. The schemes join a number of individual wealth owners to provide finance against the mortgage of property. The actual schemes are usually organised by Trust Companies or banks and usually demand a minimum commitment by the wealth owner of between R1 000-R5 000 for a three-year period. The schemes do not essentially imply an act of financial intermediation since the financial institution mostly confines itself to linking many lenders with far fewer borrowers for a commission. The lenders bear any risks and costs of default.

This brings the discussion back to the *marketability* of an asset and the general character of different markets. Any good market will have, firstly, many buyers and sellers who individually will be unable to influence the trend of market prices. Ideally the market traders should represent a wide range of investment philosophies and be widely spread geographically within and perhaps also outside a country. Differences of opinion and interest would tend to make a market more resilient to changes of prices in one or other direction. A fundamentally good market is likely to be further improved by specialist dealers who trade on their own account and back their judgement as to

the trend of future prices. By buying when prices seem low and selling when prices seem high the professional speculators are likely to smooth out fluctuations in market prices.

By way of illustration we may refer to the quality of the market for government stock in South Africa. The market for short-term government stock, which is defined as stock of less than three years to maturity, is quite well developed. A variety of financial institutions hold and are required to hold short-term government stock. The Public Debt Commissioners, who are essentially the financial intermediaries for the public sector managing public sector pension funds, social security funds, the post office savings bank accounts and short-term deposits by government and quasi-government departments, etc., act as dealers in short-term government stock. In addition, the Discount Houses deal in short-term stock. Transactions of up to R10 000 in short-term government stock can also be made on the stock exchange. The market in long-term government stock, i.e. stock of more than 10 years to maturity, is very thin and limited almost entirely to insurers and pension funds who provide avenues for long-term savings. Long-term stock tends to be held to maturity as there is practically no resale market. The South African Reserve Bank sets a pattern of interest rates for the stock it is prepared to sell, but is by all accounts a most reluctant buyer.

Another important attribute of any asset, real or financial, is the *money value certainty* of that asset, that is, the certainty with which you are able to predict the future money value of the asset. The most money value certain of assets is normally money itself. Others are more or less like money in this respect. Some financial assets, for example a savings account balance, may be instantly convertible into money. Other assets may have a specific maturity date and the money value of the asset will consequently vary inversely with fluctuations in market rates of interest. The nearer the date for the conversion of the asset into money the more money value certain the asset becomes. A liquid asset is one that is relatively money value certain and which can be exchanged at relatively low cost. One may add that degrees of money value certainty will also depend upon certainty about the value of money itself. If the value of money itself fluctuates in an unpredictable way this clearly reduces money value certainty.

Further important factors affecting the attractiveness of an asset is the *yield* generated by the asset and the *certainty* with which the yield may be expected. Income is, of course, paid and earned in money, but lenders will be concerned with the expected real value earned on any particular asset. Lenders therefore will make due allowance when comparing alternative assets for any expected change.

Any individual asset, therefore, will be compared by the portfolio selector on the basis of its transactions costs, marketability, money value certainty or riskiness and real income certainty. Other things being equal the better a particular asset performs under any of these heads the lower will be the interest coupon on the asset and/or the higher its price.

The deficit unit or financial intermediary wishing to borrow will be concerned with similar considerations so

low transactions costs in the alternative securities market. The future expected trend of these same interest rates will be the key factors determining the particular form borrowing may take. It should be noted that in a time of expected inflation an equity share in profits has no intrinsic advantage over a fixed interest bearing security. Generally, money profits tend to rise with inflation and so the equity holder's real share of profits will be maintained. However, since money costs will tend to rise as fast as money prices there is no reason to expect real interest payments and receipts is reduced by increases in the general price level. However, if inflation is anticipated the holder of a fixed interest bearing security will want to be compensated for the expected change in prices. Therefore, other things being equal, money interest payments will have to be higher in a time of expected inflation in order to provide the lender with a real return competitive with the return on equities or physical assets.

The structure of interest rates

If different securities are more or less close substitutes from the point of view of borrowers and/or lenders one would expect the real rates of interest on these securities to change in a direction consistent with the expected trends in interest rates. This in fact explains the determination of a structure of market interest rates for securities of different kinds. Thus if equity finance is considered cheap and loan finance expensive firms will tend to issue more equities and less loan stock. Consequently the prices of equities will tend to fall and the prices of debentures rise. Similarly, lenders at the same time would also tend to sell equities and buy debentures reinforcing the movement towards an equalisation of returns.

If, for a further example, interest rates were generally expected to rise, in anticipation of this movement, borrowers would wish to borrow for longer periods and lenders would wish to commit themselves for shorter periods. The increased supply of long-term securities and the increased demand for short-term securities would in fact cause a rise in long-term interest rates relative to the short-term rates. Alternatively if rates were expected to fall in the future the increased demand for long-term stock and increased volume of shorter-term borrowing would in fact cause short-term interest rates to rise relative to larger rates. In other words, it is current expectations of future price trends that largely determine current price levels of financial securities. However, as was suggested previously, even if interest rates were not expected to change in the future long-term interest rates would tend to be higher than short-term rates to reflect the greater risks attached to taking a long view. As was also mentioned previously the market in long-term government securities and probably in long-term fixed interest bearing securities generally is very thin in South Africa. Consequently the Reserve Bank itself establishes the term structure of interest rates by being prepared to sell stocks of different maturities at advertised prices. The rates on longer term stock being higher than those on the shorter term stock.

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The form of controls in South Africa and their effects

The similarity has been drawn between the financial industry and other sectors of the economy. Yet to a significant degree the financial sector tends to be very different, that is, in the extent to which financial institutions are subject to controls by the authorities. Controls by the South African authorities embrace almost all the financial intermediaries to a greater or lesser extent. Controls are administered in terms of various Acts of Parliament, such as, the various Bank acts, the Pension Funds Act, Building Society, Insurance, and Unit Trust Control Acts, etc. These acts, and as they have been amended, establish, inter alia, restraints on the portfolios freedom of the different institutions, on the conditions of entry into various sectors of the financial industry, on the capital structure of intermediaries, on the forms of deposit competition, and from time to time, as at present, on maximum deposit rates.

As a consequence of these controls and the generally close interest the authorities take in financial affairs, the financial industry does not only evolve in competitive response to the preferences of lenders and borrowers but also reflects official direction of such developments. In addition, financial institutions, usually of a specific type like commercial banks or building societies, often succeed in regulating for their own purposes, though with the acquiescence of the authorities, the forms in which competition is permitted to take place. Competition being mostly directed away from explicit interest rate competition into other channels.

Let us, before considering the possible justification for such controls, set out in greater detail the portfolio requirements to be met by the different categories of financial intermediary in South Africa. So called money banking institutions, i.e. commercial banks, merchant banks, hire purchase, savings and general banks are obliged to satisfy in terms of the Bank Act certain asset/deposit ratios, i.e. cash ratios, liquid asset ratios, which include cash, and prescribed investment ratios, which include liquid assets. The liquid assets ratios required by Banks vary with the term nature of the deposit liabilities incurred; proportionately larger reserves being required against demand and short-term deposits. The authorities may also increase the liquid asset requirements up to a maximum of 60% against short-term liabilities, 40% against medium-term liabilities, 10% against long-term liabilities and 10% against liabilities under acceptances. In addition, since March, 1965, the authorities have also in terms of the acts and earlier regulations imposed ceilings on certain kinds of bank lending to the private sector, supplementary cash reserve requirements above the fixed 8% cash ratio additional liquid asset requirements, and deposit rate ceilings.

Building societies, in terms of the Building Societies Act, are obliged to maintain minimum liquid asset to liabilities ratios of 15% of short-term liabilities, 10% of medium-term deposits—including savings accounts — and 5% of long-term liabilities. In addition, they must hold at least 10% of all liabilities in the form of prescribed investments. The official definition of cash, liquid and prescribed investments for the purposes of the Acts are

as follows: Cash is coin, bullion, bank rates and balances with the Reserve Bank. Liquid assets included cash, money at call, Treasury Bills, liquid trade bills, promissory notes and acceptances, the bills of and the advances to the Land Bank, short-term government stock and Land Bank debentures, demand deposits with monetary banking institutions, and other specified assets including export credit notes of the Industrial Development Corporation. Prescribed investment include liquid assets and also government stock and Land Bank debentures not ranking as liquid assets, stocks of local authorities and stocks of selected public corporations.

Furthermore, building societies are not allowed to permit withdrawal from savings account by cheque, nor are they able to accept savings accounts from companies. Savings and deposit accounts are also subject to maxima, as fixed by the Registrar of Building Societies. A further requirement of their lending is that they hold no more than 25% of their assets in bonds of more than R15 000.

Insurance companies are obliged to maintain a minimum 30% of their net liabilities in the form of prescribed investments of which half must be government securities — net liabilities being net of reinsured liabilities. Similarly private pension funds have to keep 50% of their total assets in prescribed form and 20% in the form of government securities. Unit Trusts or Mutual funds must in turn hold at least 15% of their assets in approved form, and 7½% in government securities. Approved securities are government and government guaranteed securities and also include local authority and public corporation stocks. The Public Debt commissioners are confined in turn to holding mostly government securities with a small proportion of semi-gilts.

The reasons for controls

There are, perhaps, three distinct reasons why the control and regulation of financial institutions may be thought necessary. First, in the interests of economic stability; second, to protect savers from their own possible folly and third, to direct the distribution of savings towards officially-approved borrowers. Officially-approved borrowers are invariably financially sound. Therefore calling for increased compulsory asset requirements may simultaneously facilitate monetary control, improve the solvency of financial intermediaries and also serve to direct funds to where the authorities want them to go, that is, in South Africa, as is apparent from the definition of approved assets, generally to the government and public sector including the public corporations and local authorities and to the Land Bank and the Industrial Development Corporation who provide assistance to agriculture and industry, especially decentralized industries, respectively.

The lender of last resort function

The influence of financial institutions pervades all sectors of the economy. In fact, everywhere, funds are lent or borrowed. Clearly financial stability is a vital precondition for economic stability. Any sudden disruption in the flow of funds to deficit units dependent on them can have disastrous implications for the level of economic activity. Furthermore, financial intermediaries generally borrow for short periods to lend for somewhat

longer ones and are, therefore, vulnerable to any lack of confidence in the convertibility of their liabilities into money or cash. Weakness in any important part of the financial structure can lead to a general weakness and to what is known as a liquidity crisis. In such a period all financial institutions attempt to realize cash to meet demands being made upon them. With many sellers and few buyers a rapid fall in the value of financial assets would soon undermine even the most prudent of institutions.

The history of finance is replete with such liquidity crises. The only method of controlling such developments is for some authority, usually in the form of a central bank, to be given discretionary authority over the supply of money so that in an emergency it can create cash when only the appearance of cash will allay panic. In other words the central bank must act as a lender of last resort. The lender of last resort function for the South African financial system is performed by the South African Reserve Bank. However, the necessity for support of the system in times of urgent need does not in itself justify continuous regulation of the system. Except in the sense that, if the authorities may be called upon to rescue the system, it is perfectly understandable that they would wish to be well informed about developments in it.

The Reserve Bank would appear to more or less continuously provide facilities for the discount houses and the National Finance Corporation who are the specialised dealers in very short-term money in South Africa. There is no necessary reason why a short-term money market should be unable to reallocate the surplus cash reserves of the system without regular re-discounting and borrowing from the Central Bank. However, this would imply the need by the money market to keep cash reserves itself and for a flexible short-term interest rate structure. In South Africa, regular access to the Reserve Bank serves the function of maintaining a stable structure of interest rates, which the South African authorities take to be of considerable importance. Furthermore, the entire system is encouraged by the Reserve Bank's policy towards discounting to reduce its cash reserves and therefore to increase its demands for interest earning liquid assets, especially for Treasury Bills.

It is perhaps interesting to note that the specialist short-term money market in South Africa dates only from 1949 with the establishment of the National Finance Corporation by the Government to accept short term funds. The reason why this development did not take place earlier was not because of a lack of supply of short-term funds but the absence of short-term borrowers. It was not until the Government thought it necessary to borrow short-term to help finance a general increase in government spending that the market could develop. Till then the banks and mining houses satisfied their demand for liquid reserves largely in the London money market.

The Reserve Bank has on occasion provided financial intermediaries other than the commercial banks and discount houses with borrowing facilities. For example, the building societies received help when their liquidity was threatened by the political uncertainties of 1960-1961. More recently, in March 1970, the Treasury offered to suspend the requirement of Unit Trusts to hold government securities up to 7½% of their asset portfolios if it

were necessary to enable the Unit Trusters to meet demands being made for the repurchase of units.

The general level of prices and the supply of money

It is the authorities' concern for the general level of prices that demands control of the expansion and contraction of the supply of money. It was mentioned before that money is by definition of its function always acceptable. Therefore any money created will always find willing holders. However, economic units are not concerned with the nominal quantity of money they may be holding, that is to say the number of rands, but with its real value in purchasing power terms. If, therefore, economic units find themselves with an excess quantity of nominal money they will dispose of their surplus holdings in exchange for other financial or physical assets. If excess supplies of money are general to the economy it will lead to a general excess demand for goods both directly and indirectly as a result of a fall in the costs of financing spending. In this respect money is different by an important degree to other assets. Any excess supply of money reflects itself in the demand for and prices of all goods, financial and physical. Conditions of excess supplies for other financial assets will immediately influence the price of that asset, while further repercussions are most unlikely to be as significant or widespread. If, therefore, the authorities wish to restrain changes in the general level of prices they must control the supply of money.

The supply of money in the South African economy consists largely of Reserve Bank notes and deposits and demand deposits issued by the banking system. The demand deposits issued by any individual bank are widely accepted as money in the private sector of the economy. Such deposits are, of course, convertible into official money and into the deposits of other banks. In order to guarantee such convertibility banks must keep reserves of official money and would do so even in the absence of compulsory reserve requirements. In a 'free' banking system as opposed to one with compulsory cash reserve requirements the need to maintain reserves would still set, in part, a theoretical upper limit to the supply of bank deposits. The other determinants of the supply of bank money would be the supply of official money reserves and the proportion of that total the public prefers to hold as currency. In addition, there are, as mentioned previously, the other real costs of issuing deposits, viz, the cost of salaries, branches, etc. Clearly banks are not able to 'create' deposits in an automatic, costless way otherwise deposit banking would be far more profitable than it appears to be. The point is perhaps rather that given the high fixed costs of banking the marginal costs of supplying additional deposits tends to be low. Therefore in the shorter run changes in the supply of bank deposits depend upon changes in the cash base of the system, the official money referred to, and the proportion of it the banks are able to attract. Thus control over changes in the cash base of the system will very largely secure control of changes in the aggregate supply of money.

Changes in the cash base originate in two broad ways. First, as a consequence of the balance of payments accounts and second, as a result of changes in what are

broadly the government accounts with the Reserve Bank. When the balance of payments is favourable the cash base expands, and when unfavourable it contracts. When the Government spends or redeems loans the cash base expands and when it collects revenue or the receipt of security issues the cash base contracts. Similarly when the Reserve Bank lends or discounts the cash base expands.

If the objective of economic policy is the stability of the exchange rate then it is necessary that changes in the money supply be made ultimately dependent on the direction of the balance of payments. Until fairly recently this was essentially the basis upon which the South African money supply was determined. With the imposition of exchange controls in South Africa in the mid-1950's and their extension and retention thereafter and with the powers granted in 1961 and 1964 to the Treasury to borrow for stabilisationary purposes in excess of current spending requirements, the cash base and therefore the money supply has now become potentially independent of the balance of payments and under the direct control of the authorities. We shall discuss the contemporary determination of the cash base of the South African system in more detail at a later stage.

Financial intermediaries are as likely as other sectors of the economy to be affected by moods of optimism and pessimism. For this reason they may expand their borrowing and lending in the upswings of the business cycle and contract lending and borrowing in the downswings. In this way they may tend to make the cycles of economic activity more pronounced. For example, a commercial bank's volume of lending may be increased independently of increases in the cash base of the system if during an upswing it is prepared to reduce its own cash reserves and/or is able to persuade the public to substitute bank deposits for official money. In a decline of activity the volume of lending money may contract independently of reductions in the cash base. In a developed financial system so-called near banks provide good substitutes for bank deposits. Therefore similarly in an upswing the near banks may reduce their own cash reserves and also persuade owners of bank deposits to exchange bank deposits for near bank deposits which may then be applied to finance additional lending. The supply of bank deposits is unaffected, but its velocity of turnover has increased with the same effect on spending as if the supply of money had increased. Again velocity may decline in the downswing. However such possible developments during the upswings of economic activity cannot proceed indefinitely with a given cash base. Attracting extra deposits by improving benefits is not without extra costs. Similarly expanding lending, other things being equal, involves additional risks which may not be worthwhile taking. In the downswing phase of the cycle, on the other hand, there is no equivalent compulsion on banks to restrain the accumulation of reserves and to increase lending. This important asymmetry makes it in principle easier for the authorities to restrain an upswing than to stimulate a recovery.

Demanding compulsory cash and money reserves ratios, especially where such ratios become rather inflexible maxima, may restrain pro-cyclical reductions or increases in cash and money reserves by both inter-

mediaries and the public. However, as we have suggested, such controls are not by any means essential and are indeed superfluous to controls over the cash base. If the authorities are able to predict the response of the intermediaries to higher levels of economic activity and their effects on it by increasing the supply of money and its velocity they can adjust the cash base accordingly. And if they are not able to make these predictions with reasonable certainty then there is little effective scope for discretionary monetary policy anyway. It was concern for the increasing importance of the 'near banks' and their supply of 'near money' in South Africa that led in 1965 to the extension of liquid asset requirements from commercial banks to other banking institutions. It also led to restraints (referred to previously) imposed on the building societies that were designed to make them less able to compete with bank deposits. The philosophy behind the bank and building society acts of 1965 was that since banks created money and therefore needed to be controlled it was necessary for control purposes and only fair that other institutions performing a similar function should be subject to similar controls.¹ This line of reasoning, as I have tried to indicate, is in my opinion a false one. It is not the supply of money and of near money that is important for control purposes but changes in the supply. To control changes in the supply of money requires essentially control over the cash base of the system and a very good knowledge of the behaviour of the financial system. Furthermore, holding money in the form of cash or bank and near bank deposits is as much a form of saving as any other. By holding money, however temporarily, an economic unit is not making demands on scarce resources. The banking system like other intermediaries is able to pool such savings and transfer command over resources to deficit units without necessarily causing any pressure of excess demand.

A further point is that to the extent that intermediaries are forced to keep reserves in excess of the reserves they would prefer to keep they are being subject to a form of implicit taxation. Excess reserves tend to reduce the profitability of financial intermediaries and so their scope for expansion.

The recent extensions of compulsory reserve requirements in South Africa have been made for two related reasons. The authorities have unfortunately failed to secure effective counter cyclical and especially anti-inflationary control of the cash base of the system. Therefore extending and widening compulsory asset requirements and credit ceilings have in part been an attempt to counteract increases in the cash base. Also, more particularly, by extending the so-called captive market for public sector funds the authorities have hoped to avoid further reliance on expansions in the cash base to finance additional government expenditure.

The basic cause of all this has been the rapid rise in government expenditure, and requirements for loan

finance and the unwillingness, and to a degree sheer inability, of the capital markets to finance this expenditure at the mostly unattractive interest rates the public sector has been prepared to pay.² The South African authorities are very sensitive about the absolute level of nominal interest rates. In order to prevent an upward tendency of interest rates that may have attracted sufficient funds they have instead preferred to extend the captive market, granted special tax concessions for earnings on government stock and building society shares and at times allowed the cash base to expand. This has tended to make the cash base react in a pro-cyclical way. When activity has been buoyant with a generally eager demand for funds, interest rates have tended to rise and the authorities have found it difficult to sell their stock. Consequently the cash base expands. When, on the other hand, business activity is somewhat depressed, with a reduced demand for funds from the private sector, the authorities find it much easier to sell their stock, and there is a corresponding reduction in the cash base. The adjustment in the interest rate structure that could have served to regulate these flows of funds has usually lagged well behind the actual money market developments.

Following the Franszen Commission's investigations recent proposals for monetary policy in South Africa include making the cash ratio requirements more flexible and narrowing the definition of liquid assets, excluding mostly private sector securities to give the authorities potentially better control over this quantity.³ In my opinion these proposals are mainly quite incidental for the purposes of monetary control in South Africa. The main problem in recent years has been the inability of the authorities to control precisely the cash base and so the money supply. Satisfying this requirement is a sine qua non of monetary control and control of the rate of inflation. Monetary controls demand that public sector spending be disciplined by the ability to finance spending in a non-inflationary way. The Franszen Commission made proposals to this effect which appear to have been implemented.³ Furthermore, it also requires a more sanguine official attitude to fluctuations in nominal market interest rates.

Further, in my opinion, the apparently uninhibited extension of compulsory asset requirements in South Africa while on the one hand easing the task of the public sector to find non-inflationary finance has had and will have a positively harmful effect on the evolution of the financial structure. As an implicit form of taxation it positively discourages innovations and competitive forces. The strong presumption remains that a freely competitive financial structure will be best able to serve the diverse and ever-changing requirements of borrowers and lenders. These forces should be encouraged rather than discouraged and government and public sector borrowers would, I believe, be well advised to resist rigging the capital markets in their own favour.

* The total borrowing requirement of the Central Government was an annual average of R80-million for the five-year period 1946-1950, R83-million for 1951-1955, R120-million for 1956-60, R160-million for 1961-1965 and R343-million for 1966-1970.

1. See the Report of the Technical Committee on Banking and Building Society Legislation RPS0/1964.

2. See RPB7/1970, The Franszen 3rd Report op cit para 615 etc.

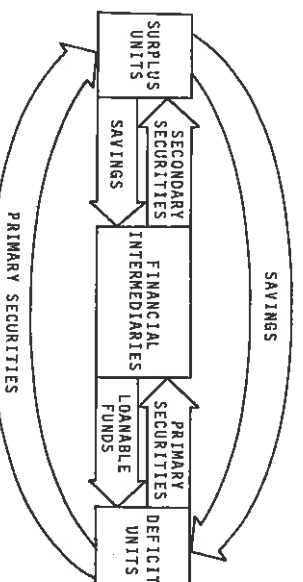
3. *Ibid* para 132.

Percentage share of combined total of assets as at 31st December, 1970 (Combined total R16 787,7 m)

Permanent Building Societies	16,1%
Long-term Insurers	15,2%
Private Pension & Provident Act Funds (31/12/69)	10,0%
Public Debt Commissioners	18,8%
Unit Trusts	3,5%
Commercial Banks	22,8%
Hire Purchase, General & Savings Banks	11,6%
Merchants Banks	2,0%

Source: South African Reserve Bank Quarterly Bulletins.

NOTE: The market value of the nine largest mining houses quoted on the Johannesburg Stock Exchange was estimated as R2 523-million. The market value of the ten leading mining finance houses as R1 449-million, whilst the twenty-five leading industrial finance companies quoted were estimated to have a market value of R690-million. (By the Financial Mail Survey on 'Top Companies', 14th April, 1972), i.e. a combined value of R4 662-million or about 28% of the combined value of the assets of South African financial intermediaries. The volume of funds committed to Participation Mortgage Schemes was approximately R516 million.



A comparison of the growth of the assets of different financial intermediaries (by index)

	Permanent Building Societies	Long-term Insurers	Private Pension & Provident Funds	Public Debt Commissioners (Funds Adminis.)	Unit Trusts	Commercial Banks	Hire Purchase, General & Savings Banks	Merchant Banks
1958	100	100	100	100	100	100	100	100
1959	106	110	119	102	106	106	110	106
1960	114	118	133	111	108	108	110	108
1961	122	123	152	119	112	112	110	112
1962	127	139	174	127	131	131	110	131
1963	139	150	195	137	142	142	110	142
1964	151	166	225	150	169	169	110	169
1965	166	178	253	171	192	192	110	192
1966	174	200	289	173	209	209	110	209
1967	184	221	328	188	224	224	110	224
1968	196	247	377	210	265	265	110	265
1969	217	278	428	229	308	308	110	308
1970	252	313		245	317	317	110	317
1971					338	338	110	338

SOURCE: Supplement to the South African Reserve Bank Quarterly Bulletin, December, 1971, and the South African Reserve Bank Quarterly Bulletin, June, 1972.

Supplement to The Standard Bank Review, September 1972.