Further Considerations on the Determinants of the Volume of Bank Deposits

1. Professor E. Schneider, in his article on The Determinants of the Commercial Bank's Credit Potential in a Mixed Money System (1), has reopened from first principles the problem of the factors which determine the volume of bank deposits. In doing so he has taken a long step forward towards the reconciliation between the different views that still exist on certain aspects of the problem. No less significant is the contribution made by Professor R. S. Sayers by his paper on The Determination of the Volume of Bank Deposits: England 1955-56 (2). In this paper he has aligned himself with Professor Schnei-
der, referring expressly to some of my writings on the subject, and in particular to my study on Money Supply and Interest Rate in Recent Macro-Economic Conceptions (3). The articles of both Schneider and Sayers confirm that it is necessary to distinguish between:

(a) what may be the "virtual" weight of the various elements which come into play in the process of deposit formation according to the different circumstances that may be assumed;

(b) what may be the "real" weight which those elements will have in the circumstances that do occur in actual situation in given countries and at specified times.

From the point of view of (a) both Schnei-
der and Sayers admit that the volume of bank deposits is not determined solely by the monetary authorities and by the banks, inasmuch as it also depends on the public as creditor of the banks. Thus they admit that no general validity can be assigned to the Keynes' argument which I questioned, and according to which, the argument was originally formulated by Robertson:

"The public as a whole cannot determine the size of the aggregate of bank deposits, which lie mainly at all events within the discretion of the banks" (4).

This is recognised by Schneider when he remarks, in his section 5, that the formula which he has adopted for linking the volume of deposits to the factors that determine it is identical with mine. That is to say that for Schneider too the public's behaviour, regarded by him as its "payment habits", constitutes (see his section 8) one of the "factors determining the credit potential and also the absolute magnitude of the corresponding volume of deposits".

And it is recognised by Sayers when he states that, according to the habits of the public:

"... substantial variation in the total of bank deposits can occur independently of any initiative on the part of the banks" (section II).

Thus such difference of views as still remains relates only to point (b). To come down from abstract consideration of virtual movements in deposits to realistic study of their actual movements, there has been an attempt to establish that in reality the effect of the public's behaviour is in general almost irrelevant, and that in any case it can be counterbalanced by appropriate credit policy on the part of the monetary authorities.

Schneider tried to show this when he brought out the fact (in his section 17) that the public's behaviour, as revealed by the relation between the notes and coins in circula-
tion on the one hand and sight deposits on the other, did not appreciably change in Germany between 1949 and 1954. And he went on to assert (in section 12) that "every variation which affects the credit potential in a direction not desired by the Central Bank can be offset by the Central Bank" through use of present-day instruments of credit policy.

A similar conclusion was reached by Sayers when he was dealing with the special conditions that prevailed in England and Wales in 1955 and 1956, and the position which he takes is less rigid than that taken by Schneider. Sayers indeed admits (in IV and VI) that in present circumstances even in England the public may influence the "cash ratio", but not "determine" the volume of bank deposits. This is because according to him the process of deposit creation is now no longer limited, as it used to be, by the "cash ratio" or cover in "bank notes" (5), but is limited by the "liquid assets ratio", whose level is affected by the behaviour of the public as buyer or seller of securities according to the rate of interest imposed by the Central Bank. Sayers also admits (in II) that the public's behaviour in the choice between deposits and bank notes has varied even in England during the last few years, now in one direction and now in another, owing to the effect of numerous incidental circumstances.

But, he says, these variations in the public's behaviour had no appreciable influence on the volume of deposits because the Bank of England managed to neutralise them, giving the banks through the money market an adequate supply of cash for cover purposes. All things considered, therefore, he thinks that even though there may be ground for taking account of the public's influence on the volume of bank deposits in the light of recent monetary movements in Italy and other countries, to do so would amount to an "unimportant nicety" in the case of England. Although this conclusion is expressly related to present conditions in England, it appears to be regarded as applicable also to past conditions there, and indeed as justifying the very slight importance hitherto attributed by British economists to the influence which the public, as creditor of the banking system, exerts on the volume of deposits. Thus after all Sayers' position would seem to agree with Schneider's; and Sayers would appear to agree with Schneider in assuming that in fact the influence of the public can be counterbalanced and neutralised by the Central Bank.

But the question now is whether this power of offsetting or "neutralisation", held by the Central Bank, can be exercised nearly without limit, and in any event so as in general effectively to counterbalance the public's influence on the volume of deposits. That is the question to which I shall try to give an answer in this article.

2. There would seem to be no need for me to repeat that, since the gold standard is now out of action, Central Banks can supply the other banks directly or through the money market with so much money that, as Sayers writes in section IV, "shortage of cash ceases to have any power directly to influence the state of credit". That can be said not only of England, but also of any other country having a Western-type banking structure. Whatever may be the habits which have come to prevail in the various countries as to the use of the "old" or "new" instruments of monetary policy, the Central Bank can always expand the "bank note" circulation; thereby it can increase the banks' excess cash, and hence the banks' total lendings to the

(1) Quarterly Review of the Banca Nazionale del Lavoro, No. 34, September, 1956.
(4) Banking Policy and the Price Level, 1950, pp. 57-58.
public, thus ultimately causing deposits to expand.

It is just as in simple arithmetic, where when two factors are multiplied, changes in the multiplicand can always be offset by suitable changes in the multiplier. So in the much more complex process of deposit creation changes in one of the factors, the public’s behaviour, can be offset or neutralized by changes in the right direction and of the right amount in one of the other factors, namely in the bank note circulation (6).

That is how Central Banks can of their own initiative promote deposit creation. In fact, to confine oneself simply to the technical banking aspects of such creation, one could even say that under a system of convertible bank notes, the Central Banks can cause deposits to expand without limit (7).

3. — Obviously however it is not enough when considering the process of deposit creation to look only at what one may call the mechanical aspects of the process. It is not enough to look only at whatever appears on the surface of bank balance sheets, and at the relationships linking the money and capital markets. One must also look at the effects on the underlying basic relationships in the economic system as this really exists.

(6) It would not however seem right to say, because of this, that the public’s behaviour does not influence the volume of deposits or that its influence is irrelevant. Nobody would dream of saying that because changes in the multiplier can be offset by changes in the multiplicand does not influence the product.

Apart from any question of words, however, the fact remains, as will be noted in the text, that the public does influence its influence. Thus, for example, according to the public’s reading of the limits of deposits will prove to be more or less noticeable within which the Central Bank can create deposits without disturbing economic and monetary equilibrium; and, also according to that conduct, it becomes necessary for the Central Bank to issue more notes or less bank notes in order that a given effect on the volume of deposits shall be realized.

(7) In this way lies exposed to “creation,” that is to say, to expansion of deposits, since that is the case to which Schneider and Sayers chiefly refer. In point of fact the public’s influence consists (at least) not only through increases in deposits, but even more through a decrease in them. The possibility of such decrease should not be overlooked, even though it has not occurred for any length of time during the last few years of persistent monetary expansion.

From this point of view it has long been known that Central Banks are subject to limits in the creation of deposits and that, if they were to exceed these limits, they would disturb economic and monetary equilibrium. Even for Central Banks there is a “sound barrier” which it is quite dangerous to go through. It is not of course a matter of rules which are fixed or precisely determined. The limits are wider or narrower according to manifold circumstances, one of the most important of these being the public’s behaviour.

This can also be inferred from Robertson’s well-known proposition according to which, as formulated by Keynes:

“the volume of cash balances depends on the decision of the bankers and is created by them; the volume of real balances depends on the decisions of depositors and is created by them” (Treatise, Ch. 14).

This means that the public can indeed be induced or forced to hold a greater volume of bank deposits, as expressed in nominal amount. But it also means that according to the public’s behaviour the increase in volume can remain wholly or partly nominal owing to the effect of a simultaneous rise in prices, leading to greater or lesser disturbances of economic and monetary equilibrium.

In fact, whatever importance may have to be assigned to the school of thought led by Hayek which so emphasizes the “forcing” of saving as a basic element in economic crises, one cannot ignore the fact that expansion of the volume of bank deposits has an essentially different character, and that it tends to preserve economic and monetary equilibrium in proportion as it is or is not accompanied by a voluntary saving and not by “forced” saving.

It cannot indeed be held that, if deposit expansion is not accompanied by a voluntary saving on the public’s part, there is bound to be a forced saving. Deposit expansion can in fact be effected and is normally effected, as already pointed out on various other occasions, without any change in total savings; it is sufficient that there should be an increase in the degree of bank mobilization of existing real assets, which may in turn be due to closer interlacing of the “chains of credit relationships” which constitute the banking system.

That is indeed one of the chief circumstances that give greater elasticity to the limits up to which deposit creation on the initiative of Central Banks can be pushed without disturbance of economic and monetary equilibrium. These limits cannot be determined a priori by any general formula. The monetary authorities intuitively perceive them through their art of “control”.

Yet, while these limits are elastic, they do exist, and they are decisively affected by the public’s behaviour. Thus they become progressively narrower in proportion as it is necessary not to promote but to “counterbalance” changes due to the public’s initiative. Indeed, given equality of all other circumstances (including of course the behaviour of the ordinary banks) the limits in question may remain almost unaltered as long as the Central Bank’s action is backed by the public’s behaviour. But they become more or less definitely felt when the public acts in what may be called a neutral manner, and they become pressingly felt when the public is acting in a sense opposite to that desired by the Central Bank, that is to say when, as in the case considered by Schneider and by Sayers, the influence of the public has to be neutralized (8).

4. — In line with these concepts one must also bear in mind that the amount of a bank note which has to be put into the market in order to produce any given expansion in the volume of deposits varies greatly according to the public’s behaviour: that is to say, according to whether the public’s action has to be promoted or offset.

(8) The three cases considered above correspond respectively, according to the terms used in money theory, to an increasing, constant or diminishing degree of preference on the public’s part (8p) in terms of an increase in the total volume of bank notes, that is to say of “chains on the Central Bank” (8).

Thus, where the increase in the volume of deposits is due to the public’s initiative (9), that increase may persist without any expansion in “bank notes”. Where on the other hand the increase is due to the Central Bank’s initiative, some expansion of “bank notes” is needed not only to start the process of deposit creation, but also to meet the “second-round” needs mentioned by Sayers (in section 1). That is to say, it is not enough to enable the banks to increase their own cash cover for the greater volume of deposits; one must also enable the public to dispose of a greater volume of “bank notes” as against the greater volume of deposits. Clearly the amount of “bank notes” which has to be put into the market will progressively increase as one passes from one to the other of the three cases considered above (10). This increases the possibility of going beyond what may be called the proper limits if it is desired in any event to neutralize the public’s influence on the volume of deposits.

5. — From the considerations stated in sections 3 and 4 it can accordingly be inferred that the Central Bank’s power to neutralize anything but unlimited, of course on the
assumption that it wishes to avoid disturbing economic and monetary equilibrium. That is to say, the power in question can be determined and established as existing with unqualified certainty only within somewhat modest limits, in regard to seasonal or at least incidental fluctuations rather than to lasting reversals of tendency.

One must therefore wonder whether the English conditions of the last few years which Sayers has so lucidly analysed really go to prove that it would be an "unimportant accretion" to take account of any changes which may be in the public's behaviour, or whether the other hand the neutralisation of those changes through the Bank of England's "ability and willingness" to keep the bank advances supplied with enough cash to cover their deposits may not have been a factor producing the opposite effect as regards the maintenance of monetary equilibrium in its domestic and international aspects (11).

6. — Then the general thesis that the public's behaviour is irrelevant to variations in the volume of deposits would be based not on the fact that changes in that behaviour could be neutralised, but on the assumption that the behaviour is stable.

The upholders of that thesis in fact assume that the public's behaviour in choosing between deposits and bank notes is determined only by the size of the one or the other in the payments which have to be made. And hence, since there is relative stability in such use, they argue, one ought to be able to rely on a priori on the movements in the public's behaviour. This argument was first stated by Robertson, with unexceptionable logic. It was then repeated by Schindler in a paper on the current account which was read before the Bank of England in 1933, and which was later published in the Bank's Record of the current account which was read before the Bank of England in 1933, and which was later published in the Bank's Record.

(14) As Schindler points out in paragraph 4, the public can make its own decision to alter its holding of deposits or bank notes to the extent that it can alter the amount of its cash in the hands of the Bank of England, and that it can alter the size of the note issue. This is because the public's decision in choosing between deposits and bank notes is determined only by the size of the one or the other in the payments which have to be made. And hence, since there is relative stability in such use, they argue, one ought to be able to rely on a priori on the movements in the public's behaviour. This argument was first stated by Robertson, with unexceptionable logic. It was then repeated by Schindler in a paper on the current account which was read before the Bank of England in 1933, and which was later published in the Bank's Record of the current account which was read before the Bank of England in 1933, and which was later published in the Bank's Record.
the banks' credit potential is decisively affected by the public's behaviour as well as, of course, by the Central Bank's control and by the behaviour of the ordinary banks. That is why I think that my attempt to measure accurately the various influences may help towards making clear what really are in Italy, and what may really be in other countries, the national Bank's powers in the banking system. There is in fact ground for hoping that further improvement and extension of such statistical assessments may provide useful data which will help to interpret, and possibly even to forecast, the course of the banks' deposits and lending with due awareness of the importance of the various relevant factors.

A. GA.

The Foreign Exchange Business of the Australian Trading Banks

Dealing in exchange and providing credit for Australia's overseas trade has from very early until the First World War, the Australian trading banks' business. The English banks in Australia, with their advantage of a London office and ample London funds, were first in the field, but by the middle of the nineteenth century several of the Colonial banks had opened a London agency and compared effectively for foreign exchange business. Until the First World War, the Australian banks enjoyed a virtual monopoly of exchange dealings between Australia and London. Their London offices, together with those of the other Imperial and Foreign Banks and the London merchant banks, constituted the London foreign exchange market. From 1905 onwards, and particularly after the First World War, the large English clearing banks entered the field and gradually assumed some share in the provision of exchange facilities for trade between Australia and the United Kingdom. But the Australian trading banks retain most of Australia's foreign exchange business, and provide much of the finance, for Australian imports as well as exports, to all parts of the world. In the last thirty years, they have made themselves increasingly independent of London bank intermediaries for foreign (as contrasted with sterling) exchange business, by developing

* The article is based on a chapter from a book on the Australian Trading Banks now in preparation. The author is indebted to several bank officials who have been good enough to answer many questions and correct many errors. For such errors as remain, and for opinions expressed, he is in no way responsible.

2) C. W. Buxton, Studies in Financial Organisation, Ch. 14, 15.

(3) The Commonwealth Bank has power to permit exchange transactions with persons other than banks, but such consent is too rare to be negligible.

(4) For accounts of the operation of the pre-1932 sterling exchange standard in Australia, see Royal Commission, Report, Ch. 35; A. M. Tovey, The Monetary Standards of New Zealand and Australia, Economic Journal, December 1929; R. W. Swinn and K. S. Icoun, Australian Monetary Policy, Economic Record, May, November 1933, December 1934.)