

offset by a similar decrease in any other item on the assets side of the banks' balance-sheet. On the liabilities side an increase in advances might be offset by an increase in capital, in reserves, in the profit and loss account, in the note-issue, in the deposits (free, fixed, or Government), or in any other liability, and there is not that necessary connection between deposits and advances which so many people and so many text-books have assumed.

*Mr. Langstone :* Reginald McKenna has assumed so.

*Professor Tocker :* He is speaking there with certain limitations implied. Is it not perfectly obvious to anybody that, if a balance-sheet does balance, then an increase in advances may be offset by any other item in the assets side or by any other item on the liabilities side. There is no fundamental difference between the balance-sheet of a bank and the balance-sheet of any other business. It is only when all assets and liabilities other than advances and deposits remain the same that an increase in advances must necessarily be accompanied by an increase in deposits. In much of the modern talk about controlling the volume of credit in the interests of stable economic conditions, the instrument of control advocated and used takes advantage of the very fact I have been trying to explain. One of the methods of control is to control the total volume of deposits and notes issued by open-market activities, and a bank may extend its liabilities by buying securities in the open market. If it buys securities it usually gives somebody either notes or a deposit on its books for the amount, and it may extend credit or cash to that extent; if it wishes to contract the volume of credit or of notes it may sell securities, and the cheque paid for the securities will decrease deposits by that amount, or the cash paid may be withdrawn from circulation. Hence deposits and the volume of credit outstanding can be affected by methods other than by increase or decrease of advances, unless, of course, you include securities in your advances. In the case of Government securities, where they are real advances to the Government, that inclusion is perhaps justified, but where a bank goes into the open market and buys and sells on its own account they are scarcely advances in the ordinary sense. In the case of the banks operating in New Zealand, their assets and liabilities are distributed between New Zealand, Australia, and Britain. An increase in the assets held in New Zealand may therefore be accompanied by either a decrease in assets or an increase of liabilities held overseas. That is what usually happens. Conversely an increase of liabilities in New Zealand, deposits, for instance, is usually accompanied, not by an increase in advances in New Zealand, but by an increase of assets in the form of exchange funds held overseas. It follows that the view commonly advanced that advances and deposits must rise and fall together does not as a rule hold true for New Zealand conditions. I have the banking figures since 1919, and I can refer to any particular period if you like over the last fifteen years. Taking March quarters, bank deposits have increased during the past two years by round about £9,000,000, while advances have declined by about £9,000,000. The explanation lies in the fact that these changes have been offset by variations in funds held overseas. Over any short period no close relation can be found between changes in advances and deposits in New Zealand. It is seldom true that increased advances mean increasing deposits, or that decreasing advances mean decreasing deposits. Generally deposits are increasing when advances are decreasing and *vice versa*. Over long periods both deposits and advances expand with the increasing value of production and trade. Since notes are subsidiary to credit instruments, bank credit is the chief form of money in use and the volume of bank credit is important. This bank credit consists of the total liability undertaken by the banks to find cash when called upon. In New Zealand cash consists of notes, which are legal tender. Since there is no effective limitation on note-issue, the liability to find notes presents no real limit to credit expansion. But the real liability which the banks undertake is the liability to find cash abroad. Past experience has shown plainly that increasing credit in New Zealand is always accompanied, sooner or later, by an increase in imports. The increase in imports, if it goes far enough, must necessarily create an unfavourable balance of payments. The banks must then find money overseas for their customers in New Zealand, and this money usually has to be provided in sterling. The period 1920-21 might be quoted in illustration. A large accumulation of deposits in 1920 was followed by a heavy influx of imports, and bank figures show that between the June quarters of 1920 and 1921 the banks had to find for their customers £28,000,000 in overseas money. Similarly between the June quarters of 1925 and 1926 the banks had to find abroad nearly £7,000,000 to meet their customers' requirements. A bank's ability to extend credit is therefore limited by its liability to provide sterling, and its deposits must be kept within such limits in relation to exchange reserves held overseas as experience has shown to be safe. It is this relationship that fixes the limits to which banks can safely extend credit. On the other hand the banks depend largely on advances for their gross income. They are commercial institutions which have to find profits to cover operating-expenses, dividends, and expansion of reserves, and they usually want to advance as much as possible in order to maximize their gross income. But there is another limit on their power of lending, for they cannot normally lend beyond the amount demanded by their customers. Marshall, the father of modern economics, says that in every community there is a certain proportion of its wealth and income which the community finds it convenient to hold in the form of money. This proportion is determined, not by the banks, but by the users of money who are customers of the bank. These customers pledge their credit and obtain bank advances. Customers' credit in this sense may be regarded as the confidence which bankers have that those customers will fulfil their obligations when due. This confidence may rest on the pledging of assets or on knowledge of the customers' circumstances, character, and ability. Bank customers have to pay for the accommodation given them, and they therefore usually take no more than they can employ to return them something more than cost. The demand for credit, therefore, depends upon the demand of creditworthy customers, which depends upon the extent to which they can use bank credit profitably. It is to the banks' interests to provide as much credit as possible and so augment their own incomes, but their power is limited by their liability to find funds overseas as well as by the limited demand of their