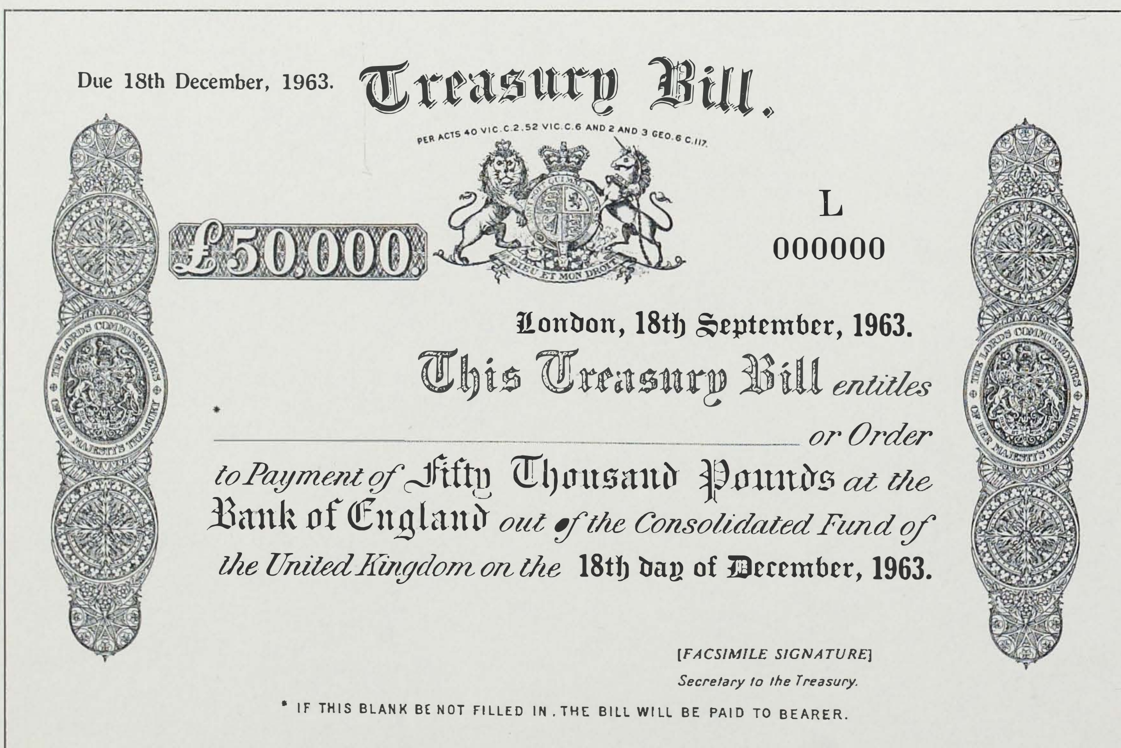
THE TREASURY BILL

The Treasury Bill is a bearer security of great simplicity. In law it is neither a bill of exchange nor a promissory note, because, being a charge on a particular fund—the Consolidated Fund of the United Kingdom—it is not an unconditional order, or promise, to pay. But the condition of payment implied in the wording of a Treasury Bill, which is only that the Consolidated Fund should be able to meet the payment at maturity, is probably no great deterrent to holders. And in practice one of the attractions of the Treasury Bill is that it allows a short-term government security to be made continuously available in highly convenient form for almost any maturity up to three months.

The document of title

The first Treasury Bills were issued in March 1877 following the passing of the Treasury Bills Act of that year which provided for their preparation, issue and payment. The form of the document of title was formally laid down in a Treasury Minute of 1889 and, although later Acts and Minutes have amended and supplemented the early legislation, the form of the Bill remains substantially the same; it could hardly be shorter than it is.

The extreme simplicity of the Bill suggests a comparison with Bank notes—the Treasury Bill resembling a large note payable not at sight but on or after a certain date in the future, and therefore issued at a discount.



Due 18th December, 1963. Treasury Bill.

PER ACTS 40 VIC. C.2, 52 VIC. C.6 AND 2 AND 3 GEO. 6 C.117.

£50,000

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London, 18th September, 1963.

This Treasury Bill *entitles*

* ______________________________ *or Order*

to Payment of Fifty Thousand Pounds *at the* Bank of England *out of the Consolidated Fund of the United Kingdom on the* 18th day of December, 1963.

[*FACSIMILE SIGNATURE*]
Secretary to the Treasury.

* IF THIS BLANK BE NOT FILLED IN, THE BILL WILL BE PAID TO BEARER.

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Treasury Bills are issued in two ways; by allotment to the highest bidders at a weekly tender, or at any time at a rate of discount fixed by H.M. Treasury. In the past, Bills for the general public could be acquired in both ways; but since 1925 those at a fixed rate, known as tap Bills, have generally been issued only to Government Departments and the Issue Department of the Bank of England. The public, including foreign official and unofficial holders, have had to obtain all their Bills through the tender or by purchase in the market. When buying in the market, they may in fact be acquiring Bills that were originally issued as tap Bills, since these are frequently included among the Bills which are from time to time sold by the Bank to the market to absorb surplus funds. There is nothing to distinguish such Bills from those issued at the tender except when they are issued with a maturity other than the normal 91 days.

The Act of 1877 allows Treasury Bills to be issued for any period not exceeding twelve months; and they have in fact at times been issued for a variety of periods within the limit. After 1917, Bills offered at the tenders were all for three calendar months; and since 1950 they have all been for 91 days, except for a temporary and seasonal use of 63-day Bills each winter from 1955 to 1962. The purpose of issuing 9-week Bills was to counteract one of the effects on the Treasury Bill market of the sharp changes which occur early each year in the Exchequer's weekly cash position : from deficit to surplus at the beginning of January (a high proportion of the year's total revenue is received in the early weeks of the year), and back into deficit as revenue receipts dwindle during March. The issue of Treasury Bills to finance the Exchequer during January to March therefore tends to produce a pattern of roughly two months with light issues followed by one month with much heavier issues. If only 13-week Bills are offered, this cycle is self-perpetuating through the year : the light issues in January and February become light maturities in April and May, and again, perhaps, in July and August; and the heavier maturities recur in June and September. By financing the Exchequer's needs in November and December partly with 9-week Bills instead of wholly with 13-week Bills, it was possible to increase the maturities falling in January and February and so induce larger issues during those months, thus moderating the disturbances then and later in the year.

This technique was not adopted, however, last winter, partly because the Treasury had been able to make some modifications in the phasing of certain large recurring payments, and partly because 63-day Bills had proved to be very much less popular in the market than 91-day Bills and had in fact become a dearer form of borrowing. Such further adjustments as were required were made instead by buying and selling Bills of suitable maturities during the course of everyday operations, in the manner described in an earlier article[a] and further explained below.

The three-month Treasury Bill is therefore still the main instrument of government short-term borrowing, although for practical convenience there are also some shorter-dated bills issued. Bills of longer maturity are not now issued, although a large part of the Government's need for finance that it meets by issuing Treasury Bills could be met quite as appropriately by borrowing for six or nine months or longer; and some investors tend to keep their money in Treasury Bills for longer than three months. It nevertheless suits both parties, and it is certainly cheaper and more flexible from the Government's point of view, for the Government to use a three-month instrument for this purpose, and to turn the borrowing over every three months.

The tender The first step in the tender is the announcement made at the Bank every Friday (with the results of that day's tender), and confirmed later in *The London Gazette*, of the amount of Treasury Bills to be offered at the tender on the next Friday for payment on any business day in the following week. If, immediately before the tender, the Exchequer's needs are seen to be smaller than had been expected when the announcement was made on the previous Friday, the amount borrowed can be reduced by allotting less than the full amount of Bills offered. Since no prior announcement of this change is made, the decision need not be taken until the tenders are opened. The

[a] "The Management of Money Day by Day", in the March 1963 issue of this *Bulletin*.

amount allotted cannot, however, be increased above the amount already announced. Bills are dated and issued at the unrestricted option of the tenderer on any business day from Monday to Saturday in the week following the tender, and mature 91 days (or 63 days) later.

Tenders must be made through " a London banker, discount house or broker "—that is, a money broker—on the official forms provided for the purpose. On these have to be stated the amount tendered for (not less than £50,000), the denominations required (ranging from £5,000 to £100,000), the price offered (a multiple of a penny), and the date on which the Bills will be taken up and paid for; separate tenders are therefore needed for Bills of different dates and for bids at different prices. These forms are securely folded before being handed in at the Bank, and when folded they reveal on the outside the amount of the tender and the day the Bills are to be dated, but neither the name of the tenderer nor the price offered. Tenders in this form are received at the Bank up to 1 p.m.; they are immediately sorted by date, listed, and totalled.

The tenders are then opened in the presence of the Secretary to the Treasury and the Governor of the Bank, or their representatives. Each form is immediately checked to ensure that there is no uncertainty about the date and amount, and that it is signed by, or on behalf of, a London banker, discount house or broker. The tenders are then sorted by the price offered, those for different dates being kept apart. The total of Bills applied for at each price is established; and tenders at the highest prices receive allotment in full—at the bid prices—so far as the total amount of Bills to be issued permits. In deciding which are the highest prices, account is taken of the fact that Bills maturing on a public holiday will become payable, according to usage, earlier or later and so will run for rather less or rather more than 91 days, thus affecting the rate of discount at any particular bid price. When the point is reached at which the amount of tenders at the next highest bid price exceeds the amount of Bills remaining available, allotment to such applications is made proportionately. These applications will include those made by the discount houses at the common price agreed among themselves. Bids from others, tendering on behalf of themselves and their customers, even when they are all at prices higher than the discount houses' agreed bid, are rarely sufficient to cover the total issue; thus some is usually left to be allotted at the discount houses' price. And since the discount houses accept as an informal responsibility that their tenders should in aggregate at least cover the total amount of Treasury Bills on offer, their total bid is always more than enough to take up whatever amount of Bills has not been allotted at higher prices. At this next highest price, therefore, a proportional allotment has to be made; and the proportion varies quite widely from week to week, depending on the total of the bids that have come from other tenderers, and on how accurately they have guessed the price at which the discount houses have tendered. A high proportional allotment at this price may indicate either that the discount houses have outbid all but a few of the other tenderers, or simply that the other tenders are small. An approximate calculation of this proportion is made when the tenders are opened; and at about 1.30 p.m. a provisional announcement is made of the result, quoting the lowest price at which tenders have been accepted and approximately what proportional allotment each bid at that price will receive. The tenders are then rechecked in detail; the results are calculated exactly and announced definitively at about 3 p.m. This final notice states the total amount of tenders received, the amount allotted, the average rate of discount for all Bills allotted, and the amount of Bills to be offered for tender on the following Friday.

Successful tenderers are sent Letters of Acceptance by post; these give details of the Bills which have been allotted to them. Unsuccessful tenderers are not notified formally; but if a tender at a price that would otherwise have received an allotment has been rejected for some technical reason—such as the absence of a signature—then this fact is conveyed to the tenderer informally.

The Treasury's representative authorises the announcement in the Treasury's name of the amount of Bills to be offered at the next tender and fixes the rate of discount to be allowed to Government Departments on tap Bills issued during the following week, currently at a fraction below the published average rate on tender Bills. Thus those Departments which hold their spare balances invested in tap Bills, rather than lending them as Ways and Means Advances direct to the Exchequer, earn very much the same rate on the Bills as if a successful tender had been submitted on their behalf. Tap Bills are also available to the Issue Department of the Bank, and in special cases to non-government holders. The Banking Department of the Bank tenders for Bills on behalf of its customers, and sometimes for itself, though it may also hold tap Bills bought from the Issue Department.

During the following week successful tenderers present at the Bank, on the days selected in their tenders, their Letters of Acceptance, duly discharged, with payment usually in the form of a cheque drawn on the Bank of England, and receive in exchange the Bills allotted to them. Similarly, when Bills fall due for payment, they are listed and presented at the Bank by the holders who, if they wish, are given an acknowledgement in exchange. Later on the same day, either their accounts with the Bank are credited or, if they so indicate, they may receive payment by cheque.

The role of the Treasury Bill in the day-to-day management of money

As explained in the March 1963 article, the day-to-day management of the money market and the finance of government expenditure are the two main factors in the Bank's Treasury Bill operations. An excess of government income over expenditure is broadly reflected as a shortage of cash in the money market as a whole and conversely an excess of expenditure over income results in a surplus. Since neither the Government nor the money market wishes to hold surplus cash, there is need of a system for restoring the equilibrium. The working balances of the various Government Departments are kept to a minimum, any surpluses at the end of each day being transferred to the main accounts of the Exchequer and Paymaster General; and the aim is to maintain on these accounts a total overnight balance of no more than £2 million. Ideally this could be achieved by a close matching day by day of total receipts and payments by all Departments in the Exchequer Group. The flow of receipts and payments is, however, distinctly uneven and the Government's cash position changes, sometimes quite largely, from day to day with corresponding changes in the cash available in the money market. Both find it convenient, therefore, to have in Treasury Bills an immediately acceptable and swiftly transferable security that can pass between them to bring the two sides into balance. On a day when, for example, there are larger payments by the general public to government account than receipts from government account, the positions of both sides can be brought into balance by the Bank of England purchasing Treasury Bills from the market for government account; the Exchequer is in this way using its temporary surplus to buy back before maturity some of its outstanding debt, thus saving itself the expense of borrowing anything more than it really needs from day to day. And when the receipts by the general public from government account are larger than their payments to government account—on the occasion, for instance, of a maturing government stock—balance can be restored by selling Treasury Bills on behalf of the Government to the market, a procedure that usually suits both parties for the time being.

The Treasury Bill is in this way the borrowing instrument for the Government's residual needs, the amount held by the general public being quickly and easily adjustable towards the end of each day's business. In fact, the last of the day's purchases of Treasury Bills by the Bank are often not made until nearly 2.30 p.m. As they are bearer securities, there is no document of transfer to sign. The Bills are gathered in from the sellers and paid for by the Bank's brokers, who hand them over the counter at the Bank within an hour and receive a credit to their account at the Bank by a transfer from government account.

Some business of this sort takes place almost every day, with the Bank buying or selling in the market, and transferring Bills between the Issue Department and the Banking Department, as may be necessary to achieve both a balance in the Exchequer's accounts and whatever degree of tightness in the market seems best suited to the policy being pursued on short-term interest rates. By and large, this is a question of judging the amount of Bills to buy or sell day by day; but once this has been decided, the choice of maturities can have consequences for the management of money in later weeks. The pursuit of these two aims may be helped or hindered by the amount of Bills maturing on each day in the hands of the market as a whole —all Bills, that is, not in U.K. official holdings. When the forecasts show that the balance of other payments and receipts by the Exchequer will be heavily in favour of the market on a certain day, it helps both to balance the Exchequer's account and to place the Bank in a position of strength for their operations in the market on that day, if the market's receipts from Treasury Bills maturing on that day have been reduced to a minimum beforehand. This is done as opportunity offers by buying up the relevant Bills in advance. Sometimes, however, heavy credits to the market are foreseen that are not matched by debits to Exchequer funds, as for instance when notes are returned to the Bank in large quantities after the Christmas note peak, or when the Bank's customers are expected to make substantial payments out to other banks: the chance may occur, in the course of day-to-day operations, to smooth out such foreseen disturbances by buying up Bills maturing at that time on behalf of the Banking Department. The reverse can also happen. Customers of the Bank are not infrequently credited in a single day with payments from other banks so large in total that the effect, if not moderated, would be to create a very substantial shortage of money in the market. Opportunities for correcting this kind of maladjustment in advance do not occur so frequently, since they depend on the market having sufficient surplus funds on some previous occasion to buy Bills of that date from the Bank. The Bank may not of course, when they first learn of the possibility of such receipts by their customers, have on their books enough Bills of the appropriate date to sell. They can, however, take up tap Bills through the Issue Department at very short notice; the Bills are printed in the Bank's Printing Works and can be available for delivery to the market in a matter of hours.

This technique is particularly useful when the incidence of a public holiday creates a gap in the Treasury Bill issues, and gives rise to a total absence of Bills maturing on some business day 91 days later; the Bank can then take up tap Bills maturing on that date whenever the need for them, and the opportunity to sell them to the market, seem likely to arise.

The market in Treasury Bills The total of all Treasury Bills outstanding at the 31st March 1964, the end of the financial year, was £4,418 million; of this total £1,823 million were in U.K. official holdings (the holdings of the Bank of England, the Exchange Equalisation Account, the National Debt Commissioners and certain Government Departments), some of which would be Bills issued to the market at the tender and bought back in the course of the Bank's operations. The total of Treasury Bills in the hands of the market as a whole was thus £2,595 million. In broad outline, the factors affecting this total during the preceding three months—when the Exchequer was in heavy seasonal surplus—were:

Table I

£ millions, rounded nominal values

Amount outstanding in market hands at the 31st December 1963		3,065
Total of new Bills allotted in the tender	+2,770	
Total official purchases from the market (including Banking Department purchases, and discounts of customers' Bills) net of sales	−1,100	
Total of Bills maturing in market hands	−2,140	− 470
Market Treasury Bills at the 31st March 1964		2,595

The figure here with the greatest monetary significance is the total of market Treasury Bills. By March 1963 this total had fallen to its lowest level since 1952, and, apart from seasonal variations, it has since remained fairly stable. But since Treasury Bills are still clearly a popular form of investment, and are indeed needed by banks and some other financial institutions to provide cushions of liquid assets in a period of increasing advances, the continuing stability of the total at a low level calls for some explanation. There is no statutory limitation on the size of the total issue that has any bearing on the question; the answer must be sought in the behaviour of holders of government debt, and, of course, in Exchequer requirements.

The following figures show the main holdings and how they have changed over the past four years:

Table II

£ millions

	End-March				
	1960	**1961**	**1962**	**1963**	**1964**
Discount houses	450	365	371	366	363
Domestic banks(1)	959	808	812	675	678
Accepting houses and overseas banks(2) ...	91	102	92	83	108
Overseas central monetary institutions and international organisations(2)	995	1,048	988	1,061	1,086
Other identified overseas holdings ...	772	656	496	66	50
Other holders ...				334	310
Total	3,267	2,979	2,759	2,585	2,595

(1) London clearing, Scottish and Northern Ireland banks only (mainly mid-March).

(2) The coverage of this category is not uniform throughout the table.

The discount houses hold Treasury Bills as part of their stock-in-trade; their Bills are mostly acquired at the tender, and they are the main supplier of Bills to the banks and others through the market; the demand from these sources on the discount houses is usually such that very few Treasury Bills remain in the discount houses' hands until they mature. Last March, Treasury Bills represented about a third of the houses' total assets. This proportion has been much higher; it was over a half in the mid-1950's, the recent decline being partly a consequence of a rise in their holdings of short-dated government stocks.

The figures for the domestic banks are dominated by those of the London clearing banks, for whom Treasury Bills are particularly important as coming within the conventional banking category of liquid assets. The clearing banks, though they submit tenders for their customers' requirements, do not apply for Bills for their own account at the weekly tender but obtain their requirements later in the market. When a bank has cash to spare but needs to employ it in liquid assets rather than invest it in stocks, it can either buy Treasury Bills or commercial bills from the market, or lend the cash at call in the market against security—the security being usually Bills or short-dated stocks. In this sense Treasury Bills held by the banks are a direct alternative to Treasury Bills held by the discount houses on call money lent by the banks; the choice lies with the banks.

The clearing banks normally hold their Bills to maturity, though they may sell them to the Bank of England if the Bank are looking for Bills of a particular maturity which the discount houses no longer hold. In general, therefore, their holdings of Bills are of a shorter maturity than those in the discount houses' portfolios. In March this year their holdings of Treasury Bills accounted for about a quarter of their total liquid assets; this compares with a proportion nearer a half in the mid-1950's, since when the clearing banks have gradually increased their holdings of other bills and have also chosen to lend a larger proportion on call to the discount houses and to borrowers outside the discount market. Accepting houses and overseas banks in London, although the level of their holdings has increased, now hold a much smaller proportion of their liquid funds in Treasury Bills than the clearing banks.

Overseas central monetary institutions and international organisations need to keep most of their sterling assets in an easily realisable form; Treasury Bills provide a very suitable investment for these funds, because they are not securities within the meaning of the Exchange Control Act, 1947, (and the proceeds at sale as well as at maturity are free of all exchange control restriction) and because a bank will always discount them immediately for a customer. Last March over a third of the total sterling funds held by these bodies was invested in this way.

Although rising substantially in the 1950's, Bill holdings outside the banks, discount houses and overseas central monetary institutions have never accounted for more than a relatively small part of the total. In March 1951 they totalled only about £75 million or $2\frac{1}{2}$% of all Treasury Bills in the market. By March 1960 they had risen to £772 million (nearly 24%) but by March 1964 they had fallen again to £360 million (14%).

Part of this total relates to overseas holdings other than those held by central monetary institutions. But at March 1964 such holdings were relatively few (some £50 million); non-official overseas holders were probably seeking the highest return on their investments, for which most of them would accept some slight sacrifice of liquidity or security.

Financial institutions, such as insurance companies, building societies, pension funds, and hire purchase finance companies are all very small holders of Treasury Bills; at the 31st March 1964 these institutions between them held only about £20 million. The nature of their liabilities is such that they can afford to hold most of their assets in longer-term securities and also take advantage of the rather higher yield obtainable on other forms of short-term investment, such as local authority debt, which are not always so readily realisable.

The greater part of the residual category " other holders " in the above table is probably in the hands of industrial and commercial companies. Such companies hold Treasury Bills largely to give them an income on their temporary surpluses of cash such as funds set aside for the payment of taxes (in the United Kingdom, companies do not pay income tax until nine months or more after the relative profits are earned). Before 1951 the yield on Treasury Bills had not for a long time been attractive enough to persuade such companies to invest funds in Bills rather than hold them on deposit with the banks. But, with the rise in short-term rates in the 1950's, more and more companies became aware of the higher income to be had on Treasury Bills; and companies' holdings rose considerably. More recently, however, the still higher yields now to be obtained on loans to local authorities and hire purchase finance houses have attracted some of the cash that was employed in Bills; and demand from companies has fallen.

There is a difference, important in any analysis of holdings, between those whose decision to increase or decrease their holdings of Bills is quite autonomous—such as the overseas holders, and domestic holders apart from banks—and the banking system (the banks and the discount houses), whose aggregate holding is initially determined in part by forces beyond their control; this difference merits some further explanation. Within the total of borrowing needed to finance government expenditure, by the issue of National Savings securities, Tax Reserve Certificates, stocks, and Treasury Bills, financial policy since the war has aimed, more often than not, to produce the greatest possible contribution from lenders other than the banking system. The necessary measures, however, such as the adjustment of terms and the introduction of new securities attractive to those lenders, take time to have their effect; but with no cash balance to speak of, the Exchequer's needs have to be met from day to day. As the system works, the banks and discount houses between them find themselves inevitably holding the residual amount of Bills necessary to bring into balance the Exchequer's cash position—and the market's.

The banking system fills this gap, however big it may be; but not by any conscious decisions each day to buy the particular amount of government securities needed to produce a balance. Rather it is a reflex action of the system. Government payments that are not financed by government income, or by borrowing from outside the banking system, give rise at once to surplus cash in the banks; and this cash in the first instance is passed on by the banks to the discount houses, usually on the same day, either by buying Treasury Bills from them or in loans to them at call. This by itself may change the distribution of Bills between the banks and the discount houses; but it does not alter the total of Bills held in the system as a whole. The discount houses do not, however, themselves hold on to cash : they always employ virtually all their resources. Furthermore, given that the Government have issued enough Bills to pay for their total expenditure, and that those not taken up by holders outside the banking system will have been allotted to the discount houses, the houses in turn will need the cash passed on to them by the banks to pay for the new Bills due to be taken up. This increases the total of Bills held in the banking system to the level needed to provide the residual finance for government expenditure on that day. In practice the total of new Bills issued is usually more than enough to finance the day's expenditure, so that the market finds itself short of money to pay for them. The final adjustment is then carried out by the Bank of England buying enough of the Bills already held by the market to restore balance, in the manner already described; at this stage the banking system can hardly avoid losing Bills, because a refusal to sell would force the discount market to borrow at the Bank.

The banks cannot prevent the system working in this way, except by holding on to the surplus cash; this would be unlikely, however, because it would deprive them of earnings. Individually they can, and of course do, react to such changes in their liquid assets, either by changing their policies on advances, or by buying or selling investments. But even a purchase or sale of government stocks will do nothing of itself to change the total of government debt held by the banking system. If they buy more government stocks, the Exchequer is able to sell, through the Issue Department, more stocks and so has less to finance on Bills; when settlement for the stocks is made, the market's shortage of funds is that much greater and the Bank give more help by buying up Bills to the same extent. In the result, the banking system as a whole has exchanged Bills for stocks with the Issue Department; and individually some banks may have acquired more government debt, others less. But the decisions they have made do not lead directly to any change in the aggregate of the system's holdings of government debt of all kinds.

Reference to Table II shows that in the two years ending March 1961 and March 1963 the fall in the Exchequer's need for Treasury Bill finance took effect mainly as a fall in the banking system's holding. In both years holders outside the banking system increased their holdings of government debt, and in addition in 1962/63, the banking system increased its holding of stocks at the expense of Bills. In 1961/62, although the finance of the Exchequer had also called for less borrowing on Bills, other lenders were running off their Treasury Bills and finding alternative, and probably more remunerative, outlets. In consequence, the banking system's total holding was not much changed. Outside the banking system, the popularity of the Treasury Bill declined somewhat in 1961/62 and 1962/63, although the yield on Bills was then relatively high; but the figures for 1963/64 suggest that the decline may have slowed down. It seems likely that, provided companies have liquid funds to employ and the yield is attractive, the Treasury Bill will still be a popular investment.