

Radcliffe Report: Monetary Policy and Debt-management Reconciled?⁽¹⁾

The *Report* (2) of the Radcliffe Committee is bound to be regarded for a great many years as an indispensable textbook on Britain's financial system, the product of the first full-scale study of its monetary system since 1931. It provides the nonspecialist with a full description of financial institutions and the specialist with unexpected factual riches. In addition, it presents perhaps the most comprehensive survey of the mechanics of Treasury financing in our literature.

Any inquiry "into the working of the monetary and credit system" must necessarily deal with complex and controversial material; the members of the Committee are to be commended for their attempt to include arguments on opposite sides of a wide variety of analytical and policy questions. Nonetheless, their decision not to concentrate their recommendations but to scatter them throughout the 339 page *Report* has not made it easy to pick out the main lines of the argument. Furthermore, the sections of the *Report* are amended and qualified in many places, perhaps the inevitable mark of a unanimously-approved group document: the text reveals ambiguities, cross-opinions and even inconsistencies.

The difficulty in ascertaining exactly what the members of the Committee meant to say on many points is particularly evident in the materials on debt-management and monetary policy which lie

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(2) Committee on the Working of the Monetary System *Report*, Cmd. 827, H.M.S.O., London, August 1959. Unless otherwise indicated, all page references in this paper are to this *Report*. Later, in mid-March 1960 the Radcliffe Committee released these additional documents: *Minutes of Evidence* (1960), a complete record of the oral evidence taken by the Committee; and *Principal Memoranda of Evidence* (1960) in three volumes.

at the heart of the *Report* and seem to have become the primary concern of Committee members. In these areas, the reader comes upon novel and controversial conclusions. For example, the *Report* proposes as one of "the main ideas" which emerges from the Committee's work the proposition: "In our view debt management has become the fundamental domestic task of the central bank" (p. 337). The American, in particular, is bound to react to so sweeping and curious a conclusion with uneasiness, if not with a touch of incredulity; he knows, as a practical fact, that debt management in the United States is the exclusive responsibility of the Treasury under our legislative arrangements; with only a fiscal agency role for the central banking system.

By what steps did the members of the Committee come to this unorthodox view of the relationship between debt-management and monetary policy? At the risk of being arbitrary or too subjective, it would be my suggestion that there are four propositions which seem to provide the analytical support for the conclusions of the Committee members in this central area of financial affairs.

Four principal analytical propositions

To begin with, the members of the Committee specifically reject the view, now widely accepted in most countries of the Free World, that "the central task of the monetary authorities is to keep a tight control on the supply of money" (p. 132). While not "an unimportant quantity", the supply of money is only "part of the wider structure of liquidity in the economy" (p. 132). Thus, banks are not important because they are "creators of money" but because they are "key lenders in the system" (p. 134). Furthermore, "the level of bank advances rather than the level of bank deposits... is the object of this special interest".

Their second proposition is to substitute "this wider structure of liquidity" for the money supply as the focus of central bank operations. Here the argument follows familiar lines. In their view, the decision to spend depends "upon liquidity in the broad sense, not upon immediate access to the money". In other words, "the spending is not limited by the amount of money in existence; but it is related to the amount of money people think they can get hold of, whether by receipts of income (for instance from sales), by disposal of capital assets or by borrowing" (p. 133).

Thirdly, the members of the Committee insist upon "the structure of interest rates rather than some notion of the 'money supply' as the centre-piece of monetary action" (p. 134). This undoubtedly is the most sweeping and controversial theoretical conclusion. There are, in their words, two ways by which interest rates may affect total demand. One is the interest-incentive effect by which a change in interest rates can "induce a change in the incentive to purchase capital goods"; the Committee "sought, without much success, for convincing evidence of its presence in recent years" (p. 130-1). Secondly, there is the general-liquidity effect in which the authorities affect "the availability of funds to borrowers through particular channels"; this effect "can be altogether more peremptory" since "if the money for financing the project cannot be got on any tolerable terms at all, that is the end of the matter" (p. 131). This general-liquidity effect, like the so-called Roosa-effect introduced in the literature about ten years ago (3), is concerned with changes in interest rates on "the lending behaviour of an indefinitely wide range of financial institutions" (p. 134). The structure of interest rates has a key role because "for institutional reasons" movements in rates "change the liquidity of financial operators throughout the economy" (p. 134). The Committee goes on to maintain that, if the authorities are "inhibited in their manipulation of interest rates, no mere control of the supply of money can be expected to do much".

As the fourth point, they conclude that the central bank should attempt to control the liquidity of the private sector by "taking a view on long rates rather than short, and should be using their power as managers of the National Debt deliberately to forward an interest policy"; in addition, the monetary authorities "should give public expression of these policy intentions for the benefit of the market" (p. 178). For these reasons, the members of the Committee maintain that "it is not merely that monetary action and debt management interact so that they ought to be under one control: they are one and indivisible; debt management lies at the heart of monetary control" (p. 224).

(3) See ROBERT V. ROOSA, "Interest Rates and the Central Bank", in *Money Trade and Economic Growth* (Macmillan Company, New York, 1951): "It is principally through effects upon the position and decisions of lenders, and only secondarily through effects upon the decisions of borrowers and savers, that central bank action affecting interest rates achieves its significance" (p. 294).

Yet the practical recommendations which follow prove that these radical propositions have more bark than bite. In the first place, the description of Britain's banking mechanism, as it is admirably detailed in the *Report*, reveals that the generalizations are not intended for universal application but are uniquely designed to fit the political and economic circumstances and to be fitted into present financial practices in the United Kingdom. The suggestions would require no radical change in financial practices there. Debt management is already a central operating preoccupation of the Bank of England, and the dominating trading activities of the Government Broker, which are already an integral part of gilt-edged practices in London, would not have to be substantially changed; the Committee's recommendations would require only that the wording of his instructions be modified. Secondly, the practical consequences for Treasury financial policies which emerge from the analysis are exceedingly moderate: the Committee would merely have the Treasury (a) offer relatively high rates on its securities at all times and (b) attempt to maintain an uninterrupted flow of securities into the hands of nonbank investors at these attractive yields (4). Let us proceed to a detailed discussion of these two points.

How the British credit system works

The Radcliffe *Report* reveals that the Bank of England's debt-management responsibilities are interpreted in practice to require the Bank to provide residual finance for the Exchequer. These residual cash needs vary widely over time; the British practice is to meet these variations by means of fluctuations in the supply of Treasury bills. Furthermore, the money market is managed by the Bank in such a way that the banking system (i.e., the discount houses and the clearing banks) can absorb these fluctuations in the supply of bills; the authorities assist the banking system because they consider that "the market could not, unaided, absorb the variations in the Government's requirements, except at the cost of extreme variations in bill rates" (p. 216).

(4) These propositions seem to grow out of the Committee's concern about control of liquidity as the key to the achievement of sustained expansion in Britain without inflationary or balance-of-payment disturbances; it is unexpected that the *Report* does not deal directly with economic policies to achieve a smoothing out of fluctuations in business activity over the kinds of business cycles experienced in the postwar period.

The decision to aid the banking system reflects the official view of "the market in Treasury bills as narrowly limited, so that relatively higher rates would not attract additional buyers; the authorities would still in the end have had to help the market by themselves buying some of the Bills" (p. 215).

Residual Exchequer finance. The authorities have chosen to provide assistance to the market indirectly "either by open market operations in the money market or by lending against bills or short bonds at the Discount Office... to enable the discount houses to take up Treasury Bills allotted to them in the tenders" (p. 40). In this way, "any part of the overall cash deficit which is financed by no other means, and any seasonal deficit, can be financed by borrowing from the market by the issue of Treasury bills" (p. 38). The authorities "prefer the residual financing of the Exchequer to be indirect rather than the direct provision of credit by the central bank" (p. 40).

The practice of providing indirect finance of Exchequer requirements in this manner is the fundamental change which has transformed Britain's credit mechanism since the Macmillan Report in 1931. These arrangements mean that the Bank of England can no longer control the volume of bank reserves through the traditional central banking instruments of Bank rate and open-market operations; they also mean that "cash and Treasury bills have come to be practically interchangeable" and that "the supply of Treasury bills and not the supply of cash has come to be the effective regulatory base of the domestic banking system" (p. 216).

This transformation in Britain's banking arrangements has forced the authorities to search for credit-control devices to supplement traditional monetary instruments. The principal new device has been the "funding" policy or the attempt of the authorities to sell bonds to nonbank investors in order to avoid additions to the liquid assets of the banking system.

Capacity of gilt-edged market. Two circumstances unique to Britain help to explain how the authorities have come to depend upon "funding" for credit-control purposes. In the first place, the gilt-edged market in London has the capacity to absorb substantial Treasury cash issues each year as well as to refinance maturing issues. Even though nonbank holdings of Treasury bills in Britain are meager, the market for intermediate and long-term government bonds is substantial and the trading volume heavy. The gilt-edged

market is a major source of strength in Britain's financial structure. In 1957, for example, the banking system and official overseas holders accounted for 87 per cent of Treasury bills but only 34 per cent of marketable bonds outstanding; private individuals alone held 21 per cent of marketable bonds. (See Table 1).

TABLE 1

UNITED KINGDOM AND UNITED STATES: COMPARATIVE DATA ON GOVERNMENT MARKETABLE SECURITIES HOLDINGS BY TYPE OF HOLDER, MARCH 1957

(In per cent of privately held debt)

	Treasury bills		Bonds and other market issues	
	United Kingdom	United States	United Kingdom	United States
Banking system	50	11.4	22	32.8
Overseas holders	37	19.4 (a)	12	1.1
Financial institutions (other than banks)	1	2.8	18	12.5
Other home holders	(b)	66.4	26	53.6
Unidentified (b)	12	—	22	—
Total (in per cent)	100	100.0	100	100.0

(a) Includes some certificates of indebtedness.

(b) No separate figure is shown for "other home holders" of Treasury bills; they are included in an "unidentified" item which covers all other holders and statistical and valuation differences.

Sources: United Kingdom, *Radcliffe Report*, Table 28, pages 198-9; United States, *Federal Reserve Bulletin*.

Furthermore, the total market value of all Treasury marketable bonds during the past decade has been about equal to the value of all other outstanding securities on the London Stock Exchange. These bonds are widely traded. During the past decade, the annual turnover of short bonds is estimated to have about equaled the total bonds outstanding, the turnover of intermediate bonds (5 to 10 years) at about 40 per cent on the average and that of undated bonds (without final maturity date) at around 20 per cent of the outstanding volume (p. 203).

In important technical respects, the gilt-edged market in Britain may be compared with the Treasury bill market in the United States. Just as the banking system in Britain holds only a minor proportion of bonds outstanding, the commercial banks in the United States

hold only a minor portion of outstanding Treasury bills; as may be seen in Table 1, United States commercial banks in mid-1957 held only 11 per cent of outstanding Treasury bills but 33 per cent of marketable bonds (including certificates and notes). There is a further technical parallel in central banking policies in the two countries which is not altogether accidental; the "funding" policy which the United Kingdom depends upon for credit-control purposes makes use of the capacity of the London gilt-edged market, just as the "bills only" policy in the United States seeks to concentrate security transactions for credit-control purposes in a broadly-based Treasury bill market.

Yet the growth of a broadly-based gilt-edged market in London has not been a contemporary development. On the contrary, this market developed a great many decades ago; furthermore, the market's capacity has probably contracted, not expanded, since 1945. Back nearly a hundred years, for example, the market for Consols in London was described in a guide to country bankers in these words:

They (Consols) are the one security which you can, with absolute certainty, turn into cash at any hour of any business day in the worst throes of panic. You can not rest assured of this in respect of any other description, even, of securities of the British Government itself. Your Consols are virtually so many Bank of England notes in a latent form, but with this advantage, — that they yield you 3 per cent whilst practically forming a portion of your till-money (5).

Role of Government Broker. In the second place, substantial official trading in the government securities market is a practice long-established in Britain and accepted by bond traders and by investors. Even though it is known that the Government Broker (as agent for the Bank of England and the Treasury) trades actively at all times and in all maturities in the gilt-edged market with official resources, the private trading community apparently continues to act on the belief that bond prices are responsive to underlying demand and supply conditions and are not arbitrarily determined by official trading.

(5) GEORGE RAE, *The Country Banker* (London: John Murray, 1885), pages 214-5.

The Government Broker is accepted by the market as the wholesale source of supply for bonds of all maturities, much as a specialist trader operates on the New York Stock Exchange. He also is used by the authorities to carry out the underwriting of new Treasury issues.

The authoritative description the *Report* gives of the mechanics of Treasury underwriting reveals the central role these operations play in Britain's credit mechanism (6). For these purposes, the authorities rely on the portfolio of the Issue Department. Once the public's applications for a new bond offering have been filled, the remaining bonds (commonly most of the issue) are taken into the Issue Department's portfolio. These bonds are "gradually sold to the market through the Government Broker over the following weeks and months, at the market price... on the date of sale" (p. 37). When bonds are turned over to it, that Department is "obliged to reduce its lending to the Exchequer" by reducing its Treasury bill holdings; in turn, the Exchequer is "forced to borrow more from the market by the issue of Treasury bills" (p. 30). The Exchequer sales of Treasury bills to the market expand the liquid assets of the clearing banks. On the other hand, the liquid assets of the banks are reduced when the Department sells bonds to the gilt-edged market. That Department can lend the proceeds of its sales to the Exchequer, and the Exchequer can then buy bills back from the market. In this way, bond sales by the Government Broker (the so-called "funding" operations) have the effect of putting the banks under liquidity pressures.

Two aspects of these arrangements should be noted. In the first place, the Exchequer always obtains cash from the issue of new securities even if the bonds remain in the hands of the Issue Department, unpurchased by the investing public. The banking system acts as lender of last resort as needed, aided by the authorities to carry the requisite volume of Treasury bills. Secondly, the willingness of the public to buy bonds becomes the crucial element in the British banking mechanism. The perverse effect of official policies when bonds are not saleable can be illustrated by events in mid-1955 when the authorities encouraged the nationalized industries to offer bonds to reduce their abnormally large bank loans. Because the

public would not buy the offerings, the authorities found that they "were obliged to increase the total of Treasury bills... to finance the nationalized industries until... the Issue Department had sold the stock which it took up at the time of issue" (p. 30). The nationalized industries received their cash from the bonds in routine fashion and applied the receipts to reduce their bank loans. To the extent that additional bills were taken up by the banking system, however, the net result of this endeavour to replace bank loans by long-term bonds was to reduce the loans and increase the liquid assets of the clearing banks, quite the reverse of the intended effect.

Thus, the crucial significance of "funding" as a credit-control device lies in the fact that "net sales of stock enable the authorities to finance an Exchequer deficit without adding to the credit base of the banking system" (p. 38). Such sales are the means by which the authorities can avoid having to depend upon the banking system for residual Exchequer finance with its consequential addition to the liquid assets of the banking system. This fact explains why the Committee came to regard the activities of the Government Broker as "among the most important, and most central, of central banking operations" (p. 214).

High yields in order to sell securities continuously

It was the critical need in the British system for continuous security sales to the market which led the Committee to advocate that the Treasury rely upon relatively high rates to make its securities attractive. It recommends that the authorities accept "an interest rate structure that will ensure the desired structure of the debt" (p. 207). The authorities should "push the rate of interest to a level that is high enough to attract sufficient firm holders for the debt and yet consistent with a balance between demand in the public sector, demand in the private sector, and the available resources of the economy" (p. 208).

The Committee advocates high yields on Treasury securities as essential to a control of general liquidity. It enunciates "the principle that, except so far as its views influence market expectations (an important exception), it cannot choose both a rate of interest and the quantity of debt to be held at that rate" (p. 128). That is to say, the Treasury "cannot simultaneously choose both the structure of interest rates and the structure of the debt" (p. 129).

(6) See *Report*, pages 30, 36 to 40 and 213-14; *Minutes of Evidence*, questions 1762 to 1789; and *Principal Memoranda of Evidence*, Volume I, pages 82-83 and 105 to 109.

The Committee endorses without qualification the subordination of interest cost considerations to the need to attain the desired debt structure. It goes so far as to endorse the view that "a continuance of moderately high rates (judged by earlier standards) is reasonable even at times of slackness in production" (p. 213). These moderately high bond rates "are unlikely to prevent the revival in production" but if bond rates were lowered now "the lower rates and increased liquidity entailed might well be reached just in time to be a nuisance in the next boom". It realizes that "moderately high bond rates and a large Budget deficit form an unusual combination as deliberate measures of economic policy, but it may well be the right one in a world which, despite recession, remains inflation-minded and growth-minded". If this policy promotes full employment and steady growth, "it will probably in the long run be the easiest on the tax payer, despite the superficial appearance of a high interest charge on the debt" (p. 213).

In this way, high bond rates and the primacy of liquidity-control considerations over interest-cost considerations in debt-management policy become the cornerstone of the Committee's recommendations. These principles are unexceptionable, even by traditional banking standards, in Britain's present circumstances.

These strong views on interest-rate policies are likely to disappoint many observers in Britain and the United States who might otherwise welcome the Committee's attack on other aspects of central banking activities and policies. Many critics of central banking and of the recent use of monetary policy in both countries, the advocates of credit expansion and of cheaper money, have tended to urge that cost considerations be given a prominent — not an insignificant — emphasis in formulating public debt policy. Recent controversy in the United States, especially in connection with the interest ceiling on Treasury bonds (7), makes it all the more impressive that nine men in England from labor, business, the law, the universities and banking could come to unanimous agreement on this critical recommendation. Could a comparable group selected in the United States come to unqualified agreement on a comparable recommendation?

(7) Between 1952 and 1958, long-term saving institutions in the United States acquired \$95.0 billion of new assets, of which fixed-income assets amounted to \$86.1 billion; yet they

Selling bonds on a falling market

It is unfortunate that the members of the Committee were not content to confine their discussion of high rates to debt-management objectives. Instead, they felt impelled to look upon interest rates as a general tool of economic stabilization in the economy. Their confidence in interest rates for stabilizing liquidity rests in part upon the realities of British financial practices, as we have seen. They decided that proper interest rates could achieve the uninterrupted flow of securities to the market required to raise capital funds and to refinance maturing issues for the Exchequer. Yet recent experience in the United Kingdom, as summarized in the *Report* itself, does not provide grounds for optimism that interest-rate policy can effect a continuous increase in the securities holdings of the private sector over the business cycle.

The Committee's confidence that, with appropriate rates, the authorities could maintain security sales to the market apparently survived a continuing dispute with Bank and other officials during the hearings. These differences centered on the question: can the Treasury sell bonds on a falling market? (8). These officials "held the view that sales could only be made in any quantity on a rising market" (p. 203-4). The Committee held that the official judgment

reduced their holdings of United States Government securities by \$4.4 billion. The breakdown of these totals by institution and by type of asset (in billions of dollars) is:

Institutions	Treas- ury securi- ties	Mort- gages	Corpo- rate bonds	Stocks	Other assets	Total
Life insurance companies	- 3.8	17.7	16.1	0.9	7.2	38.3
Savings and loan associations	2.1	29.9	—	—	2.5	34.7
Mutual savings banks	- 2.5	13.3	1.4	0.7	1.0	14.0
Corporate pension funds	- 0.2	0.5	8.6	5.5	1.0	15.3
<i>Total</i>	- 4.4	61.4	26.1	7.1	11.7	102.3

Compiled from *The Investment Outlook for 1959*, Bankers Trust Co., New York, Tables 1 to 4.

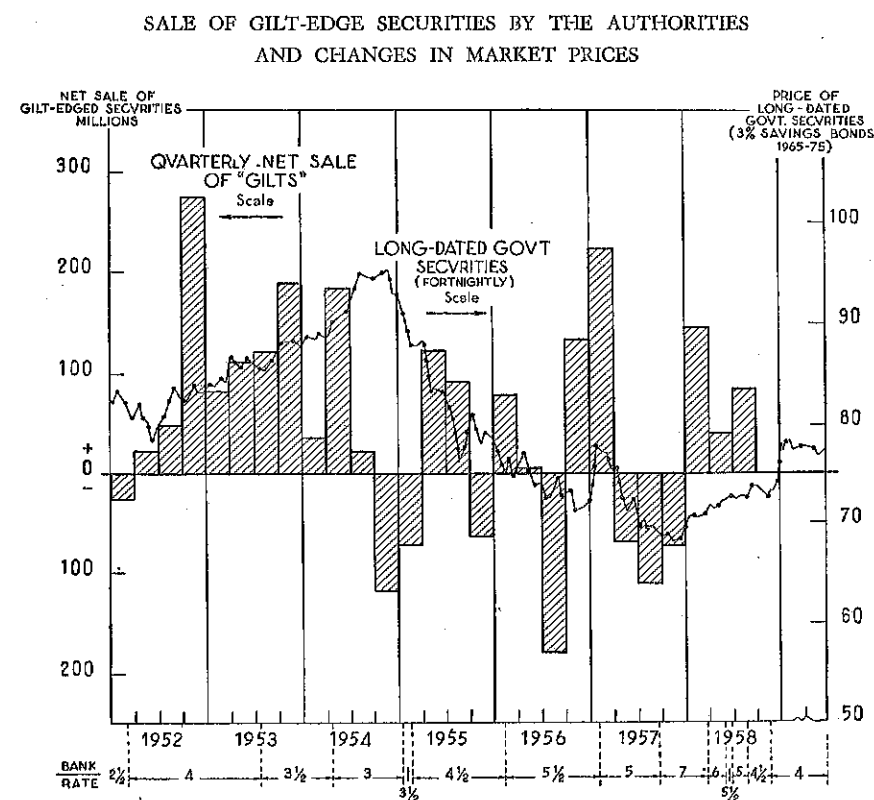
(8) See *Report*, pages 202 to 207; and *Minutes of Evidence*, questions 1762 to 1809; 1821 to 1897; 2164 to 2171 (and appendix addendum page 954); and 11919 to 12065.

“that demand could not be stimulated by dropping prices — a view not easy to accept” led them to be “entirely passive, indeed fatalistic, in their attitude to the movement of long-term rates” (p. 204-5). The Committee’s conclusion was to hope that more active official leadership in rate policy would resolve these difficulties.

The Committee rejected the arguments of the authorities which seem to have put the matter in terms of price expectations. Official witnesses reported that investors would buy bonds freely when yields were falling (prices were rising) but tended to delay purchases when yields were rising (prices were falling). On a falling market, the investors were guided by their “expectations of what prices will be tomorrow or next week” (p. 204) and tended to refrain from buying until yields had been stabilized. The Committee recognized this asymmetrical aspect of bond dealings; but they concluded that “expectations have been overrated as independent market forces, and that at times the influence of the authorities on these expectations has been correspondingly underrated” (p. 208).

Yet the difficulty seems to have been more than a matter of expectations. Apparently the authorities found themselves compelled to buy securities from the market, especially in 1956 and 1957, because the private nonbank sector actually reduced its security holdings. The Committee presented two pieces of evidence on this point. The chart reproduced on the following page compares sales of gilt-edged securities by the authorities and changes in market prices; it shows that they were able to sell securities when the prices of long bonds were rising (yields were falling) but found it necessary to buy bonds when prices were falling. There were substantial purchases from the market during isolated quarters in 1954 to 1956 and during three quarters in 1957. In fact, their net sales between 1955 and 1957 appear only barely to have exceeded their purchases. That is to say, during the private investment boom from 1955 to 1957, the authorities were not able to raise any significant part of their capital needs from the gilt-edged market. There was particularly heavy security attrition between April and December 1957.

The second piece of evidence is found in Table 2 which shows a calculation based on Exchequer financing statistics presented in the *Report*. In the second line from the bottom, a residual, roughly estimating official borrowing from nonbank sources, is calculated by taking the figures on total Exchequer market borrowing and deduct-



ing changes in the call money, Treasury bill and investment holdings of the London clearing banks. This residual calculation suggests that nonbank investors made net sales of gilt-edged securities in fiscal years, 1956-57 and 1957-58.

During the investment boom from 1955 to 1957, therefore, private investors were not prepared to purchase the Treasury’s new capital offerings which then went into the portfolio of the Issue Department; in addition, to the extent that the authorities are shown to have bought securities from the market, investors reduced their holdings by sale or by failing to renew maturing issues during the year. The Exchequer was able to keep down its borrowings from the banking system against Treasury bills only to the extent that it could make use of the interest-free lending of the public through the increased currency in circulation and could mobilize the sterling-

TABLE 2

UNITED KINGDOM: FINANCING OF EXCHEQUER CASH REQUIREMENTS,
FISCAL YEAR ENDING MARCH 31, 1951-52 TO 1957-58
(In millions of pounds)

	1951- 52	1952- 53	1953- 54	1954- 55	1955- 56	1956- 57	1957- 58
<i>Cash requirements</i>							
Ordinary surplus	380	88	94	433	397	290	423
Below-the-line deficit	-529	-524	-391	-501	-538	-621	-635
Over-all deficit	-149	-436	-297	-68	-141	-331	-212
Nationalized industries	-131	-275	-310	-171	-316	15	20
Total requirements	-280	-711	-607	-239	-457	-316	-192
Extrabudgetary receipts	27	108	146	170	98	122	87
Net cash needs	-253	-603	-461	-69	-359	-194	-105
<i>Sources of finance</i>							
Nonmarket borrowing:							
External transactions (a)	1,063	-127	-341	-175	120	201	-139
Note issue (b)	50	150	75	100	150	50	125
Small savings, etc. (c)	-369	-159	-16	78	-112	127	-6
Total nonmarket sources	744	-136	-282	3	158	378	-20
Market borrowing:							
Total (d)	-491	739	743	66	201	-184	125
Estimated from banking system	-321	304	197	-131	-196	-11	260
Estimated from nonbank sources	-170	435	546	197	397	-173	-135
Net Exchequer financing	253	603	461	69	359	194	105

(a) The sterling receipts from sales of foreign exchange by the Exchange Equalization Account and other foreign currency transactions of the Treasury.

(b) Government securities are held by the Issue Department against currency in circulation.

(c) Small savings bonds, tax reserve certificates and other nonmarketable securities.

(d) The total for market borrowing is found in the Report. Borrowings from the banking system are roughly estimated by taking the changes in selected assets of the London clearing banks (call money, Treasury bills and investments) as shown in their monthly statement. The nonbank borrowing total is a residual figure and a very rough estimate.

Source: Radcliffe Report, Table 6, page 41.

currency receipts of the Exchange Equalization Account from its substantial foreign-exchange losses.

These difficulties in financing the Exchequer outside the banking system made funding only a fair-weather instrument of liquidity control between 1955 and 1957, effective when money rates were falling but not when rates were rising. The Committee's prescription that high rates should enable the Exchequer to sell enough securities at all times to keep private liquidity in control is little more than the official funding policy, perhaps somewhat more zealously applied. This adverse experience was one of the principal points which British officials seem to have tried to make at the hearings and which the Committee in its optimism refused to accept. This optimism led the Committee to exaggerate the scope of official action on the gilt-edged market. For all the brave words about the authorities making more positive use of interest rates or manipulating interest rates, so long as securities are bought by investors as a voluntary act of investment, it is the purchaser and not the seller who is likely to set the terms in the final analysis.

The Treasury's adverse experience in maintaining a flow of securities into nonbank hands during periods of business expansion has recurred during the rapid economic upswing in Britain in 1959-1960. In his budget speech on April 4 (1960), Chancellor Amory spoke "of the difficult conditions we had to face in the gilt-edged market last year" and reported that "over the year as a whole we paid out more to the gilt-edged market than we were able to take in by new issues and official sales" (9). He was able to report that sales of nonmarketable securities had provided a sufficient cash inflow to finance the Treasury's capital spending needs during 1959-1960; he announced more attractive terms for these securities in an effort to maintain the cash inflow during 1960-61. A few weeks later on April 28 the British authorities introduced the Special

(9) *Parliamentary Debates* (Hansard), April 4, 1960, cols. 34 and 35. He spoke of the 1959-60 gilt-edged difficulties in these words:

"Unlike the previous year, we had no long periods of sustained demand for gilt-edged stocks, and we were only occasionally able to sell on any scale. Moreover, during the year no less than £950 million of Government stock matured for redemption, and in the course of our operations there was a certain amount of what the Americans call 'attrition'; in other words, some holders of Government maturing stock did not take other Government securities in place of their holdings, and had to be repaid in cash. The market also needed a good deal of help from the authorities to absorb the heavy sales of securities by the banks throughout the year."

Deposits scheme (10) as a supplementary credit-control device and also reintroduced minimum downpayment regulations on purchases of consumer durable goods.

Can interest rates control liquidity?

The problem, therefore, is not merely a matter of price expectations but the perverse elasticity in credit supplies in Britain under present arrangements during periods of business expansion (though not in periods of recession). Large annual debt maturities and the way the Exchequer in Britain finances its current capital needs assist the private sector to shift the impact of credit shortages onto the Treasury. Britain's experience seems to suggest that there are at least three reasons why interest rates cannot be depended upon to control the liquidity of a booming economy.

In the first place, interest rates can "lock in" the investor only to the extent that the market price is lower than the purchase price of the security. How much loss he will accept depends upon the investor's need for funds or his profit expectations. In periods when the prospective gains are attractive, he may be willing to take a substantial capital loss.

If investors are to be "locked in" over time, current interest rates must move continuously to higher levels. This means that long-term rates would either have to be quite flexible over the cycle (a policy which would create substantial difficulties in other respects, as the Committee rightly point out, pages 174 ff.) or would have to go continuously from one level to an even higher one. Should interest rates rise as much in the next ten years as they have in the past decade, interest rates in the Western countries would be high indeed.

In the second place, maturing debt provides the private sector with a fool-proof means of obtaining cash. Both bank and nonbank holders of maturing securities have what might be called a "free cash option" in that they can obtain cash without capital loss simply by refusing to renew their securities. With annual bond maturities of between £600 and £1,000 million in Britain (together with a

(10) The Special Deposits scheme is discussed in detail in "The New Monetary Weapon", *The Banker* (London), August 1958, pages 493 to 506. See also *Memoranda of Evidence*, Vol. I, pp. 38-42.

large volume of floating debt), it is difficult to see how lenders and borrowers can be locked in by declining bond prices.

In the third place, it is difficult to see how, under British practices, liquidity can be controlled through interest rates during periods when the private sector is failing to increase its security holdings. For the Exchequer merely absorbs its new securities into official portfolios and raises cash for its capital spending from official or banking sources. The British arrangements are unique in that the Exchequer is always assured of its cash needs, often without substantial cost effect. These arrangements help to explain how in the United Kingdom between 1955 and 1957 the cost of credit was kept high but there was no corresponding cut in its availability. In the words of a London clearing bank chairman, "dear money and scarce money are not the same thing" (11).

The fact that credit was dear but not scarce may explain why members of the Committee found such limited evidence of the effectiveness of monetary restraint. In their words, "The conclusion we draw from the evidence is that the main effect of the restriction of bank credit was to drive frustrated borrowers to other sources of credit, where borrowing was more expensive and sometimes more onerous in other ways" (p. 162). They could not find evidence of an effective cutback in the availability of credit, even though interest rates were pushed to high levels. They were not "able to find that the squeeze had any marked effect on holdings of stocks of commodities. There was no sign that consumer spending was forced down... On the industrial side, the banks on the whole managed to avoid positive reductions of existing advances, though they had to be discouraging to applications for new advances" (pp. 162-3). In these circumstances, it is hardly surprising that they came to be impressed with the "limitations (of monetary policy) which can neither be ignored nor avoided" (p. 336).

Despite the liquidity-control difficulties growing out of debt financing needs, the members of the Committee did not regard the continuous growth in public debt, needed to finance public capital spending, as a problem. For example, they rejected Sir Roy Harrod's plea for a change in policy. He had attached great importance to the Treasury's role as a substantial peacetime borrower and had

(11) Speech of A. W. TUXE, Chairman, Barclays Bank, in *The Economist* (London), January 21, 1956, page 246.

urged "removal of this burden by radical changes in the price and capital requirements of the nationalized industries" (p. 210). They concluded that this solution was not realistic, not on banking grounds, but because the nationalized industries as a whole are "getting no net return on capital employed" and have very little scope to raise prices (p. 219). They also rejected the possibility of increased taxation where "the Budget deficit is being used in effect to finance additions to the productive equipment of economy" (p. 207) as though the short-run inflationary impact of an investment were in any way related to its productivity; and they positively affirmed the desirability of continuing to borrow on the gilt-edged market. In addition, the Committee recommended that the borrowing needs of the local authorities, which in 1955 had been shifted to the capital market, be placed once again onto the Exchequer through the Public Works Loan Board (12). These recommendations mean that the Exchequer would have to find very substantial sums of cash, year after year, for these two groups from the gilt-edged market.

Private liquidity and a growing public debt

The ease with which the private sector was able between 1955 and 1957 to frustrate attempts to reduce its credit availabilities illustrate some of the consequences of continuous Exchequer cash needs and of a substantial floating supply of Treasury securities in private hands. It may no longer be sufficient for economists to continue with the comfortable views, inherited from the era of the thirties with its idle resources and need for deficit financing, that the size of the public debt does not matter since we only owe it to ourselves or to assume that an economy can accommodate any volume of debt. The *Radcliffe Report* itself shows that Britain's public debt burden is relatively less today than it was before 1939; it was equivalent to 204 per cent of national income in 1935 and to only 168 per cent in 1958 (p. 193). Yet today Treasury fiscal policies are dominated by debt-management objectives, which was hardly the case in 1935. Furthermore, it may not be accidental that the world's strongest currency at the moment, the D-mark, comes from a country

(12) The British Treasury specifically rejected this recommendation. See *Parliamentary Debates* (Hansard), November 26, 1959, cols. 583 to 587.

which absorbed the wartime currency excess through a conversion and has neither debt maturity nor Treasury capital spending financing problems to beset the authorities nor a wide private holding of Treasury securities to be drawn on for liquidity purposes.

By historical standards, the size of the public debt in the United Kingdom is very much larger than, and the liquidity needs of the private sector probably far below, the level prevalent in earlier times when recurring depressions and private liquidity crises were the common experience, not continuous employment and rising prices. It has been estimated that Government debt now accounts for over half the net worth of the private sector in Britain (13). For the private investor, a greatly diversified range of nongovernmental investment instruments now competes as an outlet for his funds with government securities; as a result, there is no longer as clear grounds for a strong preference for Treasury securities with their freedom from credit risk or greater marketability (14), especially under the post-1945 conditions of expanding output and income. For the business man, investment decisions can now relate not to credit availabilities but to prospective funds obtained "by receipt of income (for instance from sales), by disposal of capital assets or by borrowing" (p. 133). Stable markets and rising prices enable the firm to plan its expansion on the basis of current receipts and on the basis of anticipated income as well (15). On the other hand, an expanded public debt, the outgrowth first of depression policies, then of war finance and finally of postwar capital spending, has provided the British private sector with a widely-held source of liquidity. It was the Exchequer's need to meet both the debt and its current spending needs that created such credit control difficulties for the authorities.

It is in the analysis of how the private sector can shift Treasury securities for liquidity purposes that the great error of the Radcliffe Committee in attempting to discard the concept of money supply becomes apparent. After all, a Treasury security has no capacity in

(13) E. VICTOR MORGAN, "What Role for Interest Rates", *The Banker*, October 1959, page 587.

(14) *Treasury-Federal Reserve Study of the Government Securities Market*, Part I (Washington: 1959), page 5.

(15) In the United States, though not in the United Kingdom, even bank loans (in the form of term, consumer and real estate loans) are now chiefly on the basis of the anticipated income of borrowers; commercial banks no longer concentrate on loans for short periods and of a self-liquidating character. See, for example, HERBERT N. PROCHNOW, "Bank Liquidity and the New Doctrine of Anticipated Income", *Journal of Finance*, December 1949, page 208.

itself to add to current spending; it must first be converted into a bank deposit. This shift from an older to a new investment is a two-stage process: (a) disentangling (16) the original investment by converting it into cash; and (b) employing the cash to buy the new asset. The second step is clearly automatic; it is therefore essential to concentrate upon the first step in attempting to limit private investment switching during periods of business expansion.

The function of limiting such shifts between financial assets and money has always been the major responsibility of the rate of interest. For interest rates set the terms upon which the investor obtains cash from an old financial asset. Rising bond yields during a boom help to check such disentanglings because the increasing capital losses on the old securities reduce the net attractiveness of any new investment opportunity. Since the stock of financial assets so greatly exceeds the money supply at any time, the flow from securities to cash must be kept in hand, especially as the expansion gathers momentum.

In the process, what happens to the money supply is much more significant than what happens to interest rates (17). If the monetary authorities allow the money supply to grow in the same volume as securities are sold, the sales would have no effect on interest rates nor would bond prices necessarily decline. Under these conditions of virtual bond pegging, such shifts would be expected to continue, and probably to accelerate, as investment opportunities expand during the upswing. Yet at some point these sales must be slowed down, as fuller resource utilization materializes, and bond prices must be allowed to decline.

If the monetary authorities keep the money supply unchanged, these security sales produce lower bond prices and raise interest rates. No security could be turned into cash unless another deposit holder

(16) This term was introduced in a somewhat different context by Professor D. H. ROBERTSON (see *Essays in Monetary Theory*, Staples Press, London: 1940, page 13). I am indebted to Dr. Ronald F. Henderson, Corpus Christi, Cambridge for suggesting it.

(17) The contrary opinion was presented to the Radcliffe Committee by Professor R. F. Kahn in these words: "It is inherent in this view that the rates of interest should look after themselves, and that the quantity of money is what matters. My answer is that it is the rates of interest that matter interpreted in a wide sense, and not the quantity of money". (*Minutes of Evidence*, question 10986). Professor Kahn's evidence apparently impressed the Committee since the *Report* states: "We therefore follow Professor Kahn, in the evidence which he submitted to us, in insisting upon the structure of interest rates rather than some notion of the 'supply of money' as the centre-piece of monetary action" (page 134).

agreed to purchase it. In this process, the check to the *total liquidity* of the private sector (not the liquidity of the security holder) would be absolute, aside from velocity effects; a flow from securities into deposits would be matched by a counterflow from deposits into securities. In the British case, the purpose of security sales is to avoid Exchequer borrowings from the banking system; in this direct sense, liquidity control, as it is called by the Committee, amounts to no more than a control of bank deposit creation, in other words the money supply. Only by selling securities can the British authorities hope to stabilize the liquidity of the private sector; but the funding policy has proved to be a fair-weather instrument precisely because it has not been possible to impose an effective credit squeeze on the private sector without controlling the Exchequer's demands on the banking system, that is, on the money supply. When the members of the Committee say, "We find control of the money supply to be no more than an important facet of debt management", they could as well have said that debt management was merely a means of controlling the money supply.

The overwhelming fault of a policy of limiting the money supply, in the eyes of cheap-money advocates, is that interest rates would move ever upward as demand pressure mounted. By reducing its security holdings, the private sector in Britain can evade credit restraint, as it did between 1955 and 1957. Because of its annual maturities and its new capital needs, the Treasury is then forced, as the largest borrower in the market, to pay marginal rates competitive with private borrowers; these rates for short- and long-term money can be high, as was demonstrated in the United Kingdom in the fall of 1957 and in Canada in the summer of 1959.

The Treasury can reduce this burden of credit restraint to the extent that its cash needs are eliminated and its annual maturities reduced. The compensatory fiscal policies of the thirties, redefined to encompass the Treasury's total cash needs and not merely its current spending, would have the effect of cushioning the rise in interest rates and the growth of private liquidity during boom periods. Surplus tax receipts allow the Treasury to retire existing debt; the debt repayments increase the funds in capital markets.

Our current problem of economic stabilization over the kinds of business cycles we have experienced in the postwar period is to keep the wide fluctuations in private investment from creating excess total demand pressures from time to time. In Britain, it is a matter

of reconciling fluctuating private spending with continuously expanding public investment. Because of debt-management problems, the British authorities were forced to resort to a variety of special monetary and fiscal measures between 1955 and 1957 in their attempts to keep demand in the private sector under control. In April 1960, they also introduced special credit-control measures to check the 1959-60 business expansion. During the business expansion in 1955-1957 and during earlier postwar years, the British experience has been that public investment had eventually to be cut back substantially, often in the midst of a foreign-exchange crisis. The Committee's view was that such action was "a confession of failure: it may entail wasteful disruption of plans, as when investment in the public sector was cut for this kind of reason in 1957" (p. 207).

Is it not time for all of us — economists, political leaders and the public — to recognize that the only cheap money the Treasury can (and should be expected to) depend upon is tax money? Tax receipts carry no interest burden, create no maturity problems and cannot become a source of cash for the private sector. Many cheap-money advocates who propose added credit creation to accelerate growth in our Western economies seem to forget that the Russian fiscal system depends upon high turnover taxes to curtail consumption and free resources for expanding government investment. A policy of high yields is only second best because it creates debt handling problems for the authorities and provides the private sector with a floating mass of liquidity which immensely complicates monetary and fiscal management during booms. Yet acceptance by the Treasury of high rates on its securities is unquestionably a step in the right direction. The Committee's recommendation on rates is in fact the line of policy now accepted in Britain by policy-makers and by the public. For all its limitations, and they are considerable, the distinctive contribution of the *Radcliffe Report* and its principal claim to be a distinguished monetary document and a guide to policy-making may well prove to rest on the Committee's unqualified assertion that high rates on securities "will probably in the long run be the easiest on the taxpayer, despite the superficial appearance of a high interest charge on the debt" (p. 213).

Washington

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