# GOVERNMENT DEBT and CREDIT CREATION 

## A study of the creation of credit \& its effect on the British Economy.



Research Report
No. 9

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## GOVERNMENT DEBT AND CREDIT CREATION

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## FOREWORD

The inspiration for this paper came from the feeling that there is something wrong with Government financing when as much is spent on paying interest on the National Debt as on Education or on Health.

With our slender resources we have only been able to draw together some of the relevant information which seems to point to startling cor:clusions.

We accept that these conclusions may not be wholeheartedly accepted, however we do strongly feel that the concept is worth more comprehensive study and discussion as the implications are profound. In any event, they should not be ignored.

I would like to especially acknowledge Edward Holloway's enthusiasm and guidance along with Malcolm MacDonald's research.

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D.P. de Laszlo<br>CHAIRMAN

## GOVERNMENT DEBT AND CREDIT CREATION

## INTRODUCTION

The Economic Research Council has been well known over many years for its papers examining and explaining the course of inflation. The thesis it propounded in 'A Programe for National Recovery' and 'Excessive Taxes lead to Stagflation' is now generally accepted and has been acknowledged by at least two Chancellors of the Exchequer. However, the attempts by the present government to reduce public sector borrowing, bring down interest rates to acceptable levels and regulate money supply have not been satisfactory and the economy has suffered grievously as a result. Even the substantial income flowing to the Exchequer from North Sea Oil (estimated by the government at $£ 5,880$ million for 1981/82) has not enabled either the present government or the previous one, to reduce overall taxation. The government's share of the Gross Domestic Product rose from 34\% in 1955 to $40 \%$ in 1980; and the central government estimate for taxation increased by about $£ 10,000$ million from $£ 65,400$ million for $1980 / 81$ to $£ 75,500$ million for 1981/82. One fact which stands out is that the cost of servicing central Government Debt (mainly National Debt) has risen from $£ 705$ million per annum in 1955 to 68,661 million in 1980.

Recognising that the payment of interest at present high levels places an intolerable burden on the productive sector of the economy, the Economic Research Council decided to inftiate an enquiry into the way in which money in all forms, comes into circulation. We have been led to the following main conclusions:
(1) That the State should create all the currency and credit needed to satisfy the spending power of the Government and the buying power of consumers:
(2) The power of the banks to increase the amount of credit money in circulation should revert to the State. Had
this been done since 1945 some $£ 30,000$ million could have been saved by the Government if they had maintained their historic privilege of themselves issuing all forms of money including credit.

It is right that the banks should be fully recompensed for the valuable services they perform, but if we examine these closely we would see that this is essentially bookkeeping. It is misleading to describe the banks services in financing Government expenditure out of newly created credit money as "lending". The word should not have been used in this connection as it creates a false picture of what really happens. As a result we have allowed private institutions to usurp the right to issue our money and to make very handsome profits thereby.

We maintain it would be possible to stop this compounding debt interest without affecting inflation if the Govermment extended control of its fiduciary responsibility to all forms of credit creation.

The present system of banking began when Goldsmiths first made loans or advances for which they did not have full backing by issuing receipts that were negotiable. This evolved into the Provincial banking system of the 18th and early l9th Centuries: Provincial Banks issued their own bank notes which were backed by unlimited liability of the Bank's Partners - the issue invariably exceeded the liquid assets and often the total assets of the Partners with the consequential periodic banking crises typical of the period.

Before 2844, banks issuing notes could use those notes to make commercial loans on which they earned interest and even, on occasions, lend money to the Government.

The creation of credit and liquidity by this method was a major source of capital for the industrial revolutions. In order to regain the control of fiduciary instruments and to
raise money Parliament passed the Bank Charter Act of 1844 Which gave the monopoly of bank note 1ssues to the Bank of England in England and Wales. Certain Scottish and Northern Ireland Banks still have the right to issue notes. The Act was later updated by the Currency and Bank Notes Act of 1954.

The Government at various times during this period tried to tax the Bank's fiduciary ability by Stamp Tax on individual notes (1783) and other methods. The 1844 Act recovered for the Government its control of the note issue, which was a major source of credit creation, and the profit accruing to it. Since 1844 the creation of credit has slipped out of the Government's hands, as other forms of credit have been developed and expanded.

The Bank of England's note issue was originally fully backed by holdings of gold. Today, the note issue is backed by Government and other Securities. The interest earned on the securities held by the Bank of England Issue Department against the issue of notes is refunded to the Treasury since the Bank of England is itself a Government Agent and profit on its operations is payable to the Treasury.

This paper proposes that the method by which credit is created should be re-examined and suggests that the creation of credit should once again become the sole prerogative of the Government. Abraham Lincoln summed up the principle very succinctly:

Government possessing the power to create and issue currency and credit as money and enjoying the right to withdraw both currency and credit Irom circulation by taxation and otherwise, need not and should not borrow capital at interest ss a means of financing Governmental work and public enterprise. The Government should create, issue and circulate all the currency and credit needed to satisfy the spending power of the Government and the buying power of the consumers. The privilege of creating and issuing money is not only the supreme prerogative of Government, but it is the Government's greatest creative opportunity."
(U.S. Senate Document No. 23)

Major proposals along these lines were put forward by the American economist, Irving Fisher, during the Depressions of the 1930's.

A quote from the Economic Reform Club's (now part of the E.R.C.) series of papers 'The Banks and the War', IIIrd Paper, published in 1943, put the position clearly, describing the situation where Government does not have full control of credit:
"...it is apparent that no new (credit) money can be created except through the banking system, which issues it as an interest-bearing debt owed to them by the Nation.

The result of this has been the piling up of an enormous burden of debt on which succeeding generations of our people will have to pay huge sums each year in the form of interest and Sinking Fund.

As the banking system in creating this money is merely using the Nation's credit by liquifying it, the right of the Banks to treat such created credits as a loan and to receive payment of interest thereon is unjustifiable, and it is therefore submitted most strongly that they are not entitled to anything more than an agreed fee based on the extra work devolving upon them by the handling of these funds, in a manner similar to that in which the Bank of England is compensated for the management of the National Debt and of the Fiduciary Issue."

## SUMMARY

The power to issue bank notes has provided for the Government, since 1945, about 219,000 million of revenue, of which $£ 9,300$ million arises from the increase in notes issued, and $\mathbf{£ 9 , 8 0 0}$ million from the interest saved on government securities held as backing for the issue.

In 1980, the Government borrowed 811,154 million and spent 28,661 million paying interest on previous debts. The interest payments represented $10.6 \%$ of Central Government current expenditure.

The power of the banks to increase credit has meant that the Government has foregone revenue, since 1945, of over £ 30,000 million, of which $£ 14,000$ million arises from the increase in credit, and 217,000 million from the interest the Government could have earned if the credit had been issued as notes.

Under the present system the Government could have sold direct to the Bank of England Issue Department government stock and received notes in exchange. Interest paid on this stock would have gone to the Issue Department and in turn been credited back to the Treasury. The effect on total money supply and consequently on inflation would have been nil.

## CONCLUSION

If the Government had followed a policy of extensive fiduciary control and had itself issued credit, rather than allowing the banks to do so, it could, for example, have made a net reduction over the period $1970-80$ in the need for Government borrowing from the $£ 48,578$ million securities issued to about $£ 22,000$ million, a saving of about $£ 27,000$ million on the national debt over the period.

The effect of implementing the proposed move now would be that a net amount of $£ 20,000$ million of national debt could be cancelled. The consequent reduction of interest payments on the national debt and, therefore, of taxation or further borrowing required to meet these payments, would help to bring about reflation without inflation.

1. The creation of cash
A. The total amount of cash

Money in the form of cash is created in the United kingdom mainly by the Bank of England, the amount being fixed in agreement with the Treasury, and formally subject to a degree of Parliamentary control.

The note-issuing monopoly for England and Wales was first given to the Bank of England under the Bank Charter Act 1844, and is at present governed by the Currency and Bank Notes Act 1954. Certain Scottish and Northern Ireland banks also have the right to issue notes, but these amounts, of which some details are given later, are small. Coin is issued by the Royal Mint, the Bank of England buying any coin it needs at its face value. Profits of the Royal Mint belong to the Government.

The note issue is handled by the Issue Department of the Bank of England. That department was separated by the Bank Charter Act of 1844 from the Banking Department, which controls all other banking business. The issue of notes was at first fully backed by holdings of gold, but now the Issue Department holds securities as a balance against the liability arising from the issue of notes. These are normally Government securities, as shown in the following balance sheet of the Issue Department for 10 December 1980:

TABLE 1
Bark of England Issue Department
Position as at 10 December 1980

| Liabilities | e million | Assats | ¢ million |
| :---: | :---: | :---: | :---: |
| Notes in circulation | 10,611 | Government securities | 8,430 |
| Notes in Banking Department | 14 | Other securities ${ }^{\text {a }}$ | 2,195 |
| Tral notes in issue | 10,625 | Total securities held | 10,625 |
| Source: CSO Financial Statistics |  |  |  |
| ${ }^{a}$ Includes commercial and local authority bills and bonds, and company and other securities, etc. |  |  |  |

Thjs shows that the Bank has issued over the years s.10,625 million in notes, and holds as security backing for the issue $£ 10,625$ million in securities. The amount of the note issue and of the securities held for December in each of the years 1945 to 1980 is shown in Table 2 on page 10.
The amount of notes in the Banking Department has not been of any significance, and it may be noted that notes in circulation here includes notes held by all other banks and by the public. The term public is used in monetary information to refer to the total of all sectors other than the banking sector. The notes referred to in Table 2 are only those issued by the Bank of England. The rest of the cash in circulation, consisting of notes issued by Scottish and Northern Ireland banks, mentioned on page 7, and a certain amount of coin, is comparatively small, as can be seen from Appendix Table 17 (page 45).

The amount of notes and coin held by the banks in the form of 'till money' is shown in Table 3 (page 1l), along with the amount in circulation with the public. These figures are for yearly averages, and differ from those in Table 2 (page 10) which refer to 'banking' December of each year; throughout this analysis it will be noted that there are many banking statistics referring to bankers' make-up dates rather than dates such as end of month and year normally used in other forms of information.

Table 3 shows the figures for each fifth year 1945 to 1980, and figures for the years 1919 to 1944 , and 1945 to 1980 are included in Appendix Table 18 (page 46) and Appendix Table 18a (paga 47). Also included in Table 3 are figures for the total amount of notes and coin held by the public at the end of each calendar year; both the annual averages and the amounts at the year end for 'circulation with the public' show the cash part of what is usually called the 'money stock'.

TABLE 2
Bank of England Issue Department
(amounts in $£$ million at December of year ${ }^{\text {a }}$ )

## Liabilities

3 Assets circtilation

Assets

| 1945 | 1,380 | 20 | 1,400 | 1,399 | 1 | 1,400 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 1946 | 1,428 | 22 | 1,450 | 1,449 | 1 | 1,450 |
| 1947 | 1,350 | 100 | 1,450 | 1,449 | 1 | 1,450 |
| 1948 | 1,293 | 32 | 1,325 | 1,324 | 1 | 1,325 |
| 1949 | 1,322 | 28 | 1,350 | 1,349 | 1 | 1,350 |
| 1950 | 1,358 | 18 | 1,375 | 1,370 | 5 | 1,375 |
| 1951 | 1,438 | 12 | 1,450 | 1,447 | 4 | 1,450 |
| 1952 | 1,525 | 50 | 1,575 | 1,572 | 4 | 1,575 |
| 1953 | 1,620 | 55 | 1,675 | 1,672 | 4 | 1,675 |
| 1954 | 1,752 | 24 | 1,775 | 1,771 | 4 | 1,775 |
| 1955 | 1,890 | 11 | 1,900 | 1,896 | 4 | 1,900 |
| 1956 | 1,998 | 28 | 2,025 | 2,021 | 4 | 2,025 |
| 1957 | 2,128 | 22 | 2,150 | 2,146 | 4 | 2,150 |
| 1958 | 2,135 | 65 | 2,200 | 2,196 | 4 | 2,200 |
| 1959 | 2,237 | 63 | 2,300 | 2,297 | 3 | 2,300 |
| 1960 | 2,374 | 26 | 2,400 | 2,398 | 2 | 2,400 |
| 1961 | 2,458 | 17 | 2,475 | 2,474 | 1 | 2,475 |
| 1962 | 2,453 | 47 | 2,500 | 2,499 | 1 | 2,500 |
| 1963 | 2,598 | 53 | 2,650 | 2,649 | 1 | 2,650 |
| 1963 | 2,556 | 44 | 2,600 | 2,599 | 1 | 2,600 |
| 1964 | 2,696 | 54 | 2,750 | 2,749 | 1 | 2,750 |
| 1965 | 2,876 | 24 | 2,900 | 2,899 | 1 | 2,900 |
| 1966 | 3,036 | 14 | 3,050 | 3,049 | 1 | 3,050 |
| 1967 | 3,160 | 40 | 3,200 | 3,199 | 1 | 3,200 |
| 1968 | 3,282 | 18 | 3,300 | 3,299 | 1 | 3,300 |
| 1969 | 3,370 | 30 | 3,400 | 3,375 | 25 | 3,400 |
| 1970 | 3,592 | 58 | 3,650 | 3,477 | 173 | 3,650 |
| 1971 | 3,785 | 40 | 3,825 | 3,380 | 445 | 3,825 |
| 1972 | 4,379 | 21 | 12 | 4,400 | 3,878 | 522 |

Total Govermment Other $b$ Total notes in securities securities ${ }^{\text {b }}$ securities issue

Sources: Bank of England, Statistical Abstracts 182 ; CSO, Financial Statistics

For $1945-63$, the last Wednesday in December (or, if a holiday, on the nearest working day) ; from 1963, bankers' make-up date, generally the 2nd Wednerday in December. Figures are shown both ways for 1963. Increased investment in other gecurities followed changes brought in with the National Loans Act 1968.

## TABLE 3

| Notes and coin ourside the Bank of England ( $\mathbf{x}$ million) <br> (full table for each year see appendix - Table 18a) Anmual averagesa |  |  |  | At end year ${ }^{\text {b }}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | Held by bankg <br> (till money) | In circulation with the pubiic ${ }^{c}$ | Total outside the Bank of England | In circulation with the public ${ }^{c}$ |
| 1945 | 153 | 1,263 | 1,416 | 1,287* |
| 1950 | 199 | 1,244 | 1,443 | 1,268* |
| 1955 | 268 | 1,657 | 1,925 | 1,688* |
| 1960 | 339 | 2,062 | 2,401 | 2,101* |
| 2965 | 515 | 2,426 | 2,941 | 2,636 |
| 1970 | 682 | 3,067 | 3.749 | 3,320 |
| 2975 | 791 | 5,341 | 6,232 | 5,904 |
| 1980 | 945 | 9,763 | 10,708 | 10,411 |

Sources: Bank of England Quarterly Bulletin, March 1981; Annual Abstract of Statistics; Bank of England Statistical Abstract Number 2, 1975.
${ }^{\text {a Average of wekly figures 1945-61; average of monthly figures 1961-80 }}$
batimated before 1963 on the basis of annual averages increased by 1.9\% (the actual difference for 1963)
${ }^{c}$ These amounts form the basic quantity for 'money stock'.
Bxcludes Bank of England notes held as backing for issues of Scottish and Northern Ireland notes in excess of their fiduciary issue

[^0]
## B. The amount of new cash

The amount of new cash issued 'is a source of finance for the central government' (quotation from 'National Accounts Statistics, Sources and Methods', CSO, 1968, page 420). That is, the amount of increase in the total amount of notes issued, and in the total of coins issued, is a pure source of interest-free finance for the Government.

The Note issue results from the monopoly given to the Bank of England by the Government; the Bank has created the cash at the cost only of printing and management. The profit arising from any increase in note issue belongs to the Government. Since this may be an unfamiliar idea it is worthwhile to dwell on it for a moment. If a private individual were to succeed in printing a five pound note so effectively that he could buy five pounds worth of goods with it in a shop, it would be clear to everyone that he had got something for nothing - or at least for no more than the cost to him of printing the five pound note. The illegality, as well as the immorality, of this action would consist in the fact that he was using the credit of the community, as represented by the five pound note, for his own personal gain. The Government equally, when it issues a five pound note, gets five pounds worth of goods or services for no more than the cost of printing and 1ssuing the note. But it is perfectly legal, and considered quite legitimate, for the Government to use the credit of the community in this way, because the purposes for which they are using it are supposed to be for the benefit of the community ns a whole. And in any case they have the right to raise that money by taxation.

The total increase in note and coin in issue over the period from 1946 to 1980 was $£ 9,800$ million on the basis of the banking year figures shown in Table 4 (page 14); this includes about $\mathfrak{E j 0 0}$ million increase in the issue of coin. The cost of producing and managing the note and coin issue over the period
would have been about $£ 500$ million (for details see below), leaving a net gain for the Government from their monopoly to issue cash of about $£ 9,300$ million for 1946 to 1980.

The increase in cash is shown in Table 4 in two ways: from the Bank of England statistics, relating generally to 'banking' years from December to December, and from 'national income' statistics, which adjust the total issue to a calendar year basis. In Table 4 are shown the increase in the total note issue by the Bank of England, and the estimated increase in coin in use. The figures in the first column of Table 4 are calculated from the increase each year of the figures in the third column of Table 2 (page 10). Those in the second column of Table 4 are calculated from the increase each year of the figures in the fourth column of Appendix Table 17 (page 45). The total of these in the third column of Table 4 gives a crude estimate of the benefit to the Government for 'banking' years. The national income figures in the fourth column of Table 4 show for calendar years the total issue of notes and coin, less the increase in holdings of notes and coin by the Bank of England Banking Department. These holdings are deducted because they are treated separately in the national income statistics as part of the general indebtedness to the Banking Department. On a national income basis, the total increase over 1946 to 1980 was a gross $£ 10,100$ million or net £9,600 million after the estimated cost of production and management.

The figure of $£ 500$ million given above as the cost of producing and managing the note and coin issue from 1946 to 1980 is calculated from figures in the Bank of England Accounts. The average cost for the period 1971-81 of producing notes was about $1.9 \%$ and the cost of managing the issue about $0.1 \%$ per year; this gives about $£ 200$ million as the cost of production from 1946 to 1980 and $\hat{i} 300$ million as the cost of management.

## TABLE 4

New cash created (E million)

Estimates for 'banking' years
Note issue of Bank of England ${ }^{\text {a }}$

Coin issue of Total note Royal Mint and coinc creation ${ }^{\text {c }}$

National income statistics (calendar years)
Increase in notes and coin in circulation outside ${ }_{d}$ the central government ${ }^{\text {d }}$


## C. Earnings from the cash issue

The other source of finance for the Central Government, arising from the note issue, is the interest received on securities held by the Issue Department of the Bank of England (although this funding is mainly obtained by reducing the net interest paid out on government securities). The exact amount of this interest is not published, but the estimated net payment to the Treasury from 1946 to 1980, as calculated below, was about $\mathbf{2 9}, 800$ million.

Hence, the power to issue cash has provided finance for the Government, over the period since 1945, totalling about £19,000 million, of which $£ 9,300$ million arises from the increase in cash, and 29,800 million from the interest on securities held as backing for the note issue. That is, the government borrowing requirement was $£ 9,300$ million less than it would otherwise have been; interest saved has been $£ 9,800$ million, although by the mechanics of the operation, the Treasury pays most of the interest to the Issue Department and then receives it back again.

The rest of this section is concerned with the calculation of the estimated $£ 9,800$ million net payment to the Treasury of interest on securities held against the note issue.

The Bank of England has published since 1971 in its Annual Report and Accounts the amount of income and profits arising from its holding of government and other securities.

Figures were as follows, for the Bank Accounting year ending 28 February 1981:
Total securities held: beginning of year end of year
£9,775 million

$$
£ 10,325 \text { million }
$$

Income and profits for the year: gross £1,780 million
expenses
\& 40 million
net pay-
able to
Treasury $£ 1,740$ million

Income and profits for the year include the effects of any revaluation of securities to market value; expenses are mainly costs of production, issue, custody and payment of bank notes. Figures for the net amount payable to the Treasury are shown in Table 5 (page 18) for the period for which they are available.

If the average securities held for the Bank of England accounting year are estimated at $\{10,050$ million (average of beginning and year end figures), then the average rate of return was $17.3 \%$. This includes profit other than interest payments. Separate information for interest only is not available.

The amount of interest is also mot distinguished in national income statistics. This is because the Bank of England is regarded as the agent of the Central Government and its transactions are treated as those of the Government itself. Interest on Government securities held by the Bank of England Issue Department is excluded from both receipt and payment side of the Central Government accounts, although interest received from outside Central Government is included in receipts on current account.

In order to obtain estimates of the amount of return which the securities held by the Issue Department can be expected to have received over the full period from 1945, the following calculation has been done, the basis of which is set out in tabular form in Table 5 (page 18):

1. The first column gives the annual average of securities held each year by the Issue Department. It is obtained by taking the average of the securities held at the beginning and end of each year from the last column of Table 2 (page 10).
2. The second column gives the average redemption yield on Government securities for each year. This average yield is a straight average of the official gross redemption
yields for short, medfum and long-dated British Government Securities (an official general average not being available). Also shown, in the third column, for comparison, is the official average annual Treasury Bill rate, which is applicable to short term investment (concerning which see later, page 32).
3. The fourth column gives an estimate for each year of the income value which could fairly be expected from the securities held against the note issue. It is obtained by applying the average yield on Government Securities in the second column to the annual average of securities held each year given in the first column.
4. The sum total of all the figures in the fourth column represents the total 'standardised' income from securities held over the period from the end of 1945 to the end of 1980, which was $\mathrm{Ell}, 100$ million.
5. The fifth column gives for the years 1970 to 1980 (inclusive) the net amount actually paid to the Treasury each year, which adds up in total to 27,347 million. The corresponding 'standardised' income for those years, as estimated in the fourth column, adds up to about [8,300 million.
6. If the ratio of actual net payments for the years 1970-1980, namely $7,347 / 8,300$, is applied to the full period 1946-1980, then the estimated net payment to the Treasury from 1946 to 1980 would be roughly 29,800 compared to the 'standerdised' value of $£ 11,100$.

TABLE 5
Income from securities held by the Bank of England lssue Department

| ```Total securities held (annual average)a { million``` | Yields |  | Income from securities |  |
| :---: | :---: | :---: | :---: | :---: |
|  | British | Treasury | Estimated | Net |
|  | Government | Bill | from securities | payment |
|  | securities | rate | yield <br> Emillion | to Ireagury <br> amillion |
|  | \% | \% |  |  |


| 1946 | 1,425 | 2.4* | 0.5 | 34* | na |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1947 | 1,450 | 2.5* | 0.5. | 36* | na. |
| 1948 | 1,387 | 2.5* | 0.5 | 35* | na |
| 1949 | 1,337 | 2.8* | 0.5 | 37* | na |
| 1950 | 1,362 | 2.9* | 0.5 | 39* | na |
| $1951{ }^{\circ}$ | 1;412 | 3.1* | 0.6 | 44* | na. |
| 1952 | 1,512 | 3.9* | 2.2 | 59* | na |
| 1953 | 1,625 | 3.8* | 2.3 | 62* | na |
| 1954 | 1,725 | 3.4* | 1.8 | 59* | na |
| 1955. | 1,837 | 4.1* | 3.8 | 75* | na |
| 1956 | 1,962 | 5.0* | 4.9 | 98* | na |
| 1957 | 2,087 | 5.2* | 4.8 | 109* | na |
| 1958 | 2,175 | 5.2* | 4.6 | 113* | na |
| 1959 | 2,250 | 4.9* | 3.4 | 110* | na |
| 1960 | 2,350 | 5.7* | 4.9 | 134* | na |
| 1961 | 2,437 | 6.2* | 5.1 | 151* | na |
| 1962 | 2,487 | 5.7* | 4.2 | 142* | na |
| 1963 | 2,575 | 5.1* | 3.7 | 133* | na |
| 1964 | 2,675 | 5.7* | 4.6 | 152* | na |
| 1965 | 2,825 | 6.6* | 5.9 | 186* | na |
| 1966 | 2,975 | 6.9* | 6.1 | 205* | na |
| 1967 | 3,125 | 6.7* | 5.8 | 209* | na |
| 1968 | 3,250 | 7.5* | 7.0 | 244* | na |
| 1969 | 3,350 | 8.9* | 7.6 | 298* | na |
| 1970 | 3,525 | 8.6* | 7.0 | 303* | 145 |
| 1971 | 3,737 | 7.9* | 5.6 | 295* | 270 |
| 1972 | 4,112 | 8.4** | 5.5 | 345* | 204 |
| 1973 | 4,600 | 10.6* | 9.3 | 488* | 371 |
| 1974 | 5,162 | 13.8* | 11.4 | 712* | 700 |
| 1975 | 5,837 | 13.0* | 10.2 | 759* | 583 |
| 1976 | 6,512 | 13.4* | 11.2 | 873* | 914 |
| 1977 | 7,450 | 11.6* | 7.6 | 864* | 464 |
| 1978 | 8,587 | 12.0* | 8.5 | 1,030* | 728 |
| 1979 | 9,625 | 12.9* | 13.0 | 1,242* | 1,328 |
| 1980 | 10,362 | 13.8* | 15.1 | 1,430* | 1,740 |

Sources: Table 2; CSO, Financial Statistics; Annual Abstract of Statistics; Bank of England, Annual Report
${ }^{\text {a Average }}$ of beginning and end of year figures from Table 2. bStraight
(unweighted) average of official gross redemption yields for each of short, medium and long-dated British government securities. CApplying the government securities yield to the average holding. dinterest and profits from securities; year beginning March lst.
*Estimate na $=$ not available.

## 2. The creation of credit

A. The total amount of credit

Most of our money today is in the form of credit rather than cash and it is created through the operations of the banking system. It is the method by which this credit money comes into existence which is worth examination in some detail. Under our present system it comes into existence as an interest-bearing debt and most of the present problems in the monetary sphere arise from this fact. In his book 'Economics', Professor Paul Samuelson explains in detail how "the banking system as a whole can do what the small bank cannot do; it can expand its loans and investments many times the new reserves of cash created for it". Or, as the Radcliffe Committee on credit and currency put it "the credit creating capacity of the joint stock banks are today their effective credit base; an increase in the amount of liquid assets in the banking system may therefore make possible an increase in the bank's lending to the public". For many years the banks denied that the banking system could 'create credit', but today there is no shadow of doubt that they can do so as long as there are credit-worthy borrowers requiring loans.

In 1940, when surveying war-time finance, the Economic Reform Club, now part of the E.R.C., wrote in a letter to Sir John Simon, Chancellor of the Exchequer - "the creation of such additional money and credit as may be necessary for the prosecution of the war should be the function of the State, and the Banking System should be called upon to act in this matter as the Agents of Government and not as the lenders of money. It appears to my committee that this is a fundamental issue and that no satisfactory solution of our financial problem will be found until the Government ceases either directly or indirectly to play the role of borrowers and to put upon the nation a consequent burden of debt without any such justification as exists when.money is borrowed from
genuine savings. There is not in the creation of such additional money any question of savings and there ought not, we suggest, be any question of lending".

The position remains the same today. The Government has since the war had the benefit from issuing notes, but not the benefit from issuing the other forms of credit which make up the money stock. The Government has allowed the Banks to increase credit and to obtain the benefits deriving from that power. In this chapter the amounts of funding which the Government has foregone in allowing banks to create credit is estimated.

Until 1971, the monetary base for the issue of credit by commercial banks consisted of cash held by those banks, added to the amount of bankers deposits with the Banking Department of the Bank of England (the exact relationship has varied see page 22 - and from 20 August, 1981, has formally ceased to exist, although it is still a useful measure).

Cash held by the banks has been shown in Table 3 of Chapter 1 (page 1l); in the following Table 6 a summary of the balance sheet of the Banking Department shows the amount of bankers deposits for 10 December 1980 , and the way in which total assets are invested:

TABLE 6
Bank of England Banking Department
Position as at 10 December. 1980

| Liabilities | Emillion | Assets | E million |
| :---: | :---: | :---: | :---: |
| Bankers deposits | 487 | Notes and coin | 15 |
| Other accounts and reserves |  | Government securities | 446 |
|  | 675 | Advances and other accounts | 175 |
|  |  | Premises, equipment and other securities | 526 |
|  | 1,162 |  | 1,162 |

The amounts for bankers deposits (and special depcsits where applicable) and other liabilities, and for rotes and coin, government securities and other assets, are shown in Table 7 below for each fifth year from 2945 to 1975 and for each year 1975 to 1980.

## TABLE 7

## Bank of England Banking Department

(imountg in $\mathbf{f}$ million at December of year ${ }^{\mathbf{a}}$ )
Liabilities Assets

| Benkers <br> deposits | Special <br> deposits | Other <br> accounts <br> and <br> reserves | Total | Notes <br> and | Government <br> securities |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | coin |  |  |  |


| 1945 | 274 | - | 82 | 356 | 21 | 313 | 22 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1950 | 313 | - | 119 | 432 | 19 | 364 | 49 |
| 1955 | 245 | - | 106 | 351 | 13 | 283 | 55 |
| 1960 | 226 | 151 | 97 | 474 | 27 | 403 | 44 |
| 1965 | 261 | 96 | 123 | 480 | 26 | 374 | 80 |
| 1970 | 167 | 388 | 189 | 744 | 60 | 605 | 79 |
| 1975 | 322 | 989 | 455 | 1,766 | 13 | 1,405 | 348 |
| 1976 | 325 | 1,806 | 516 | 2,647 | 18 | 1,905 | 724 |
| 1977 | 428 | 1,185 | 624 | 2,237 | 6 | 1,591 | 640 |
| 1978 | 423 | 1,099 | 729 | 2,251 | 28 | 1,848 | 375 |
| 1979 | 462 | 806 | 732 | 2,000 | 12 | 1,462 | 526 |
| 1980 | 487 | - | 675 | 1,162 | 15 | 446 | 701 |

Sources: Bank of England, Statistical Abstracts $1 \& 2$; CSO, Financial Statiotics

For 1945-1963, the last Wednesday in December (or, if a holiday, on the nearest working day); from 1963, bankers' make-up date, generally the 2nd Wednesday in December.

The item designated 'other accounts and reserves' in liabilities includes public accounts (Exchequer, National Loan Fund, etc), balances of overseas central banks and some private sector accounts, etc; the item 'other' in assets includes other securities, discounts and advances, etc.

From the point of view of the Bank of England, bankers deposits are effectively the same as notes issued; just as the Issue Department holds government securities against the note issue, so the Banking Department holds government securities against bankers deposits (for additional detail, see page 32). Further, when there are special deposits, these are in effect held in government securities, as can be seen from Table 7 (page 21). There are, however, some advances and discounts made in usual banking procedures.

Deposits in the commercial banking system have in the past mainly been related to the amount of 'cash' held, where cash is taken to mean the total of till money (notes and coin, which is effectively a deposit with the Issue Department) and deposits with the Banking Department. This 'cash ratio' was generally about $10 \%$ in the inter-war period, and $8 \%$ after the war up to 1971 when a new system was introduced for controlling the total amount of deposits in the commercial banking sector. The total amount of this 'monetary base' from the commercial banks point of view is shown in Table 8 (page 24) for the years 1919 to 1980. These figures are annual averages and not figures at year-end.

Very roughly, then, for the inter-war period, the total of commercial banking sector deposits was 10 times the total shown in Table 8, varying little over the years compared to the amount of change since World War II and being of the order of $£ 2,000$ million (average weekly deposits for London clearing banks and Scottish banks was $£ 2,522$ million in 1938).

The position for all United Kingdom banks for 1980 (December 10) is shown in Table 9 (page 25) for all sterling assets and liabilities. In this paper we are interested in the sterling position.

TABLE 8
The commercial banking sector 'monetary base'
(amounts in $\mathbf{E}$ million; annual averages ${ }^{\text {a }}$ )

|  | Commercial banking sector 'monetary base' |  |  |  | Commercial banking sector 'monetary base' |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Till money | Deposits with Banking Department | Total |  | Till money | Deposits with Banking Department ${ }^{b}$ | Total |
| 1919 | 116 | 63 | 179 | 1945 | 153 | 218 | 371 |
| 1920 | 110 | 84 | 194 | 1946 | 159 | 255 | 414 |
| 1921 | 115 | 86 | 201 | 1947 | 172 | 296 | 468 |
| 1922 | 111 | 80 | 191 | 19481 | 177 | 305 | 482 |
| 1923 | 107 | 70 | 277 | 1949 | 191 | 296 | 487 |
| 1924 | 107 | 70 | 177 | 1950 | 199 | 292 | 491 |
| 1925 | 107 | 72 | 179 | 1951 | 206 | 298 | 504 |
| 1926 | 106 | 69 | 175 | 1952 | 220 | 277 | 497 |
| 1927 | 108 | 66 | 274 | 1953 | 228 | 278 | 506 |
| 1928 | 108 | 66 | 174 | 1954 | 240 | 281 | 521 |
| 1929 | 107 | 63 | 170 | 1955 | 268 | 254 | 522 |
| 1930 | 106 | 66 | 172 | 1956 | 281 | 228 | 509 |
| 1931 | 99 | 65 | 164 | 1957 | 303 | 216 | 519 |
| 1932 | 95 | 81 | 176 | 1958 | 315 324 | 218 236 | 533 560 |
| 1933 | 101 | 100 | 201 | 1959 | 324 | 236 | 560 |
| 1934 | 102 | 100 | 202 | 1960 | 339 | 248 | 587 |
| 1935 | 106 | 97 | 203 | $1961{ }^{\text {a }}$ | 358 | 250 | 608 |
| 1936 | 112 | 96 | 208 | $1961{ }^{\text {a }}$ | 385 | 254 | 639 |
| 1937 | 117 | 97 | 214 | 1962 | 409 | 250 | 659 |
| 1938 | 121 | 106 | 227 | 1963 | 433 | 250 | 683 |
| 1939 | 132 | 103 | 235 | 1964 | 485 | 253 | 738 |
| 1940 | 141 | 110 | 251 | 1965 | 515 | 269 | 784 |
| 1941 | 142 | 123 | 265 | 1966 | 548 | 268 | 816 |
| 1942 | 147 | 237 | 284 | 1967 | 561 | 285 | 846 |
| 1943 | 149 | 159 | 308 | 1968 | 586 | 315 | 901 |
| 1944 | 155 | 184 | 339 | 1969 | 640 | 288 | 928 |
|  |  |  |  | 1970 | 682 | 192 | 874 |
|  |  |  |  | 1972 | 705 | 231 | 936 |
|  |  |  |  | 1972 | 653 | 209 | 862 |
|  |  |  |  | 1973 | 703 | 246 | 949 |
|  |  |  |  | 1974 | 764 | 259 | 1,023 |
|  |  |  |  | 1975 | 791 | 281 | 1,072 |
|  |  |  |  | 1976 | 784 | 308 | 1,092 |
|  |  |  |  | 1977 | 812 | 338 | 1,150 |
|  |  |  |  | 1978 | 849 | 389 | 1,238 |
|  |  |  |  | 1979 | 914 | 460 | 1,374 |
|  |  |  |  | 1980 | 945 | 516 | 1,461 |

Source: Bank of England quarterly Bulletin, March 1981.
${ }^{\text {a }}$ Average of weekly figures 1945-61; average of monthly figures 1961-80. Figures are shown both ways for 1961. bexcluding special deposits.

## TABLE 9

Banks in the United Kingdom: sterling liabilities and assots
Position as at 10 December 1980

| Liabilities | \& million | Assets | E.million |
| :---: | :---: | :---: | :---: |
| Notes outstanding ${ }^{\text {a }}$ | 554 | Notes and coin ${ }^{\text {a }}$ | 1,591 |
| Deposits: |  | Reserve assets: |  |
| UK private sector: sight ${ }^{\text {b }}$ | 21,000 | Balances with Bank of |  |
| UK private sector: time ${ }^{\text {c }}$ | 34,104 | England | 485 |
| UK public sector: sight ${ }^{\text {c }}$ | 659 | Money at call: discount |  |
| UK public sector: time ${ }^{\text {c }}$ | 303 | market | 4,601 |
| Sub-total: UK private and public sector depositsc | 56,066 | Treasury bills ${ }^{\text {e }}$ | 1,168 |
| UK banking sector: sight | 2,302 | Other bills | 1,753 |
| UK banking sector: time | 15,375 | British goverrment stocks (up to 1 year) | 782 |
| Overseas: sight | 2,946 | Total reserve assets ${ }^{f}$ | 9,684 |
| Overseas: time | 7,936 | Other market loans and |  |
| Certificates of deposit | 5,727 | bills ${ }^{\text {c }}$ | 29,348 |
| Sub-total: Deposits other than $\mathbb{U X}$ private and |  | Investments: British government | 3,240 |
| public sector ${ }^{d}$ | 34,286 | public sector | 470 |
| Total deposits | 90,352 | other | 2,291 |
| Items in suspense and |  | Total investments | 6,001 |
| transmission | 3,553 | Advances: UK public sector | 1,885 |
| Capital and other funds | 13,587 | other | 51,047 |
|  |  | Total advances | 52,932 |
|  |  | Items in suspense and collections | 5,705 |
|  |  | Other | 3,359 |
|  |  | Balance of 'Other currency' assets | 26 |
|  | 108,046 |  | 108,046 |

${ }^{a_{\text {Notes }} \text { outstanding are Scottish and Northern Ireland notes; part of notes }}$ and coin held as asseteare held against this issue. bThe main part of $M_{1}$ money stock. ©Part of M3 sterling money stock. dNot included in money stock (sterling). eTK and Northern Ireland. fReserve assets required from 1971 to be held as a minimum $12 \frac{1}{2} \%$ of total deposits (up to August 1981). $g_{\text {Including loans to other banks, local authorities, etc. }}$
Source: Bank of England, Quarterly Bulletin.

A summary of the full balance sheet of U.K. Banks is as follows:
tABLE 10
Banks in the United Kingdom: sterling liabilities and assets
Position as at 10 December 1980
$\left.\begin{array}{llll}\text { Liabilities } & \text { £ million } & \begin{array}{l}\text { Assots } \\ \text { Deposits: UK private } \\ \text { sector: sight }\end{array} & 21,000\end{array} \quad \begin{array}{l}\text { Reserve assets (excluding } \\ \text { balances with Bank of } \\ \text { England) }\end{array}\right)$
equals Commercial banking net contribution to money stock $M_{1} \quad 19,478$
Other Deposit accounts $\quad 35,066$
Other accounts $\quad 51,426$
105,970
105,970
${ }^{a}$ Net amount, equai to $C 1,591$ million notes and coin on the assets side leas $£ 554$ million notes and coin on the liability side.
N.B. The amount by which the totals in Table 10 are less than those in Table 9, namely $£ 2,076$ million, is represented by the exclusion from both sides of all notes and coin ( 51,591 million) and of balances with the Bank of England.

The form of this balance sheet has been slightly changed to show the commercial banking contribution to money stock ( $\mathrm{M}_{1}$ basis); this concept is explained in more detail in Appendix B. In monetary statistics, the amount of deposits with Banks is defined to be part of money stock. Here, from the total of UK private sight deposits has been deducted the 'monetary base' for commercial banks, as shown for 1919-80 annual averages in Table 8 (page 24); that is the amount from which the Bank of England and not the commercial banks derives benefit.

The money stock position analysed in this way is as follows: for 10 December 1980:


#### Abstract

£ million Notes and coin in circulation with the public 10,255 Notes and coin held by banks (net = 'till money')

1,037

Notes and coin outside the Bank of England 11,292 Bank balances with the Bank of England 485 Notes issued, coin and deposits with the Bank of England 11,777 Commercial banking net contribution to money stock ( $\mathrm{M}_{1}$ ) $\begin{array}{ll}\text { Money stock }\left(M_{1}\right) & \overline{30,161}\end{array}$ ${ }^{a}$ Equals the $£ 19,478$ million of Table 10 (page 26 ), less $60 \%$ of transit items ( $£ 1,322$ million), plus an adjustment of c228 million.

Estimates of the amount of money stock $\left(M_{1}\right)$ accounted for by the commercial banks over the period 1945 to 1980 are shown in Table 11 (page 28); these figures are for year-ends and not for the December banking dates. For banks deposits with the Bank of England and for special deposits the figures of the Bank of England (Table 7, page 21) have been used as the best estimate available for the position at the year-end. For till money the average of the yearly figures shown in Table 8 (page 24) have been used.


TABLE 11
The commercial banking sector contribution to money stock $\left(\mathrm{M}_{1}\right)$ (amounts in $\mathbf{E}$ million; end-year)

|  | Notes, co England Notes and With the public | in and coin <br> With banks | deposits Deposits Bank of Bankers | with the ingland <br> Special | of ${ }_{\text {Total }}{ }^{\text {a }}$ | Commercial <br> banking <br> net <br> contribution <br> to money <br> stock ( $M_{1}$ ) | $\begin{aligned} & \text { Money } \\ & \text { stock }\left(M_{2}\right)^{b} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1945 | 1,287* | 156* | 274* | - | 1,717* | 2,989* | 4,706* |
| 1946 | 1,366* | 165* | 279* | - | 1,810* | 3,563* | 5,373* |
| 1947 | 1,387* | 175* | 315* | - | 1,877* | 3,662* | 5,539* |
| 1948 | 1,263* | 184* | 314* | - | 1,761* | 3,861* | 5,622* |
| 1949 | 1,272* | 195* | 299* | - | 1,766* | 3,867* | 5,633* |
| 1950 | 1,268* | 203* | 313* | - | 1,764* | 3,951* | 5,735* |
| 1951 | 1,316* | 213* | 300* | - | 1,829* | 3,911* | 5,740* |
| 1952 | 1,396* | 224* | 303* | - | 1,923* | 3,860* | 5,783* |
| 1953 | 1,490* | 234* | 290* | - | 2,014* | 3,943* | 5,957* |
| 1954 | 1,580* | 254* | 276* | - | 2,110* | 4,114* | 6,224* |
| 1955 | 1,688* | 274* | 245* | - | 2,207* | 3,943* | 6,150* |
| 1956 | 1,799* | 292* | 204* |  | 2,295* | 3,892* | 6,187* |
| 1957 | 1,877* | 309* | 199* |  | 2,385* | 3,796* | 6,181* |
| 1958 | 1,941* | 319* | 215* | - | 2,475* | 3,872* | 6,347* |
| 1959 | 2,0こ6* | 331* | 255* | - | 2,592* | 4,055* | 6,647* |
| 1960 | 2,101* | 362* | 226* | 151* | 2,840* | 3,763* | 6,603* |
| 1961 | 2,192* | 397* | 216* | 233* | 3,038* | 3,519* | 6,557* |
| 1962 | 2,202* | 421* | 222* |  | 2,845* | 3,948* | 6,793* |
| 1963 | 2,251 | 459* | 228* | - | 2,938* | 4,323* | 7,261* |
| 1964 | 2,451 | 500* | 230* | - | 3,181* | 4,313* | 7,494* |
| 1965 | 2,636 | 531* | 261* | 96* | 3,524* | 4,259* | 7,783* |
| 1966 | 2,695 | 554* | 247* | 198* | 3,694* | 4,085* | 7,779* |
| 1967 | 2,815 | 573* | 259* | 213* | 3,860* | 4,582* | 8,442 |
| 1968 | 2,859 | 613* | 278* | 226* | 3,976* | 4,808* | 8,784 |
| 1969 | 3,006 | 661* | 221* | 224* | 4,112* | 4,700* | 8,812 |
| 1970 | 3,320 | 693* | 167* | 388* | 4,568* | 5,067* | 9,635 |
| 1971 | 3,589 | 679* | 181* | - | 4,449* | 6,639* | 11,088 |
| 1972 | 4,079 | 678* | 224* | 119* | 5,100* | 7,557* | 12,657 |
| 1973 | 4,377 | 733* | 195* | 1,439* | 6,744* | 6,559* | 13,303 |
| 1974 | 5,085 | 777* | 300* | 928* | 7,090* | 7,649* | 14.739 |
| $1975{ }^{\text {c }}$ | 5,904 | 787* | 322** | 989* | 8,002* | 9,481* | 17,483 |
| 1976 | 6,714 | 798* | 325* | 1,806* | 9,643* | 9,824* | 19,467 |
| 1977 | 7,699 | 830* | 428* | 1,185* | 10,142* | 13,517* | 23,659 |
| 1978 | 8,904 | 881* | 423* | 1,099* | 11,307* | 16,228* | 27.535 |
| 1979 | 9,701 | 930* | 462* | 806* | 11,899* | 18,147* | 30,046 |
| 1980 | 10,411 | 960* | 487* | - | 11,858* | 19,356* | 31,214 |

Sources: Tables 3, $7 \& 8$; CSO, Financial Statistics; Rank of England, Statistical Abstracts $1 \& 2$
arotal 'monetary base'; see Bank of England, Quarterly Bulletin March 1981, pages 59-61. bThere have been a number of breaks in the series; a break from 1967 has been adjusted backwarde here to 1963. Before 1963 estimates are especially approximate, and are partly based on deposita of London Clearing and other main banks. CFigures fmm 1975 are not strictly comparable with those of years before.
*Estimate

## B. The amount of now credit

The amount of new credit created in the economy is shown in Table 12 (page 31); these are the changes in the amount of stock items as shown in Table 11 (page 28), with some minor adjustments. The change in the amount of cash shown in the table has already been considered in Section 1B, and the figures for changes shown here are similar to those shown in Table 4 (page 14).

The overall increase in Money Stock (based on $M_{1}$ ) was about £25,300 million between end 1945 and end 1980; of this $£ 9,900$ million was the increase in cash (notes and coin) with the public and with banks, $\{200$ million was the increase in Bankers' Deposits with the Bank of England, and $£ 15,200$ million the increase in credit created by the Commercial banks. The increase shown in Table 12 is not exactly the same as the difference between the level at end 1945 and end 2980, which from Table 12 is estimated at $£ 16,367 \mathrm{million}$, due to the large number of breaks in the series. This gross increase was at little cost, although, if it had been issued instead as cash by the government, the cost of issue and management would have been about $£ 900$ million on the basis of the Bank of England figures mentioned above (section IB), giving a net amount of finance foregone by the government of ع14,300 million.

That is, the government has allowed, since the war, the Commercial banks to create a net amount of credit of about £14,300 million. Most of this happened in the 70s: for 1970-80 the net amount of credit which the government allowed banks to create was 213,500 million. Further, the above estimates are on a conservative basis; if the total money stock estimate of $M_{3}$ sterling is used, the amount of credit created has increased by about a further $£ 36,000$ million (a table of $M_{2}$ and $M_{3}$ is included in Appendix Table 19 (page 48). The main difference between $M_{1}$ and $M_{3}$ is that
$M_{1}$ includes only 'sight' deposits, while $M_{3}$ includes also time deposits; time deposits overtook sight deposits in the mid 1960s, and have become especially important since 1972.

TABLE 12
New cash and credit created
(CHANGE in the amount of money atock for the year; $\mathbf{\varepsilon}$ million)

| Notes and |
| :--- |
| coin | | Deposits with the Bank of |
| :--- |
| England |
| Bankers Special Total |


| Conmercial | Change in |
| :--- | :--- |
| banking net | toney otock |
| contribution | $\left(M_{1}\right)^{\text {a }}$ |
| to M |  |
| (creation |  |
| of credit) |  |


| 1946 | 88* | 5* | - | 5* | 574* | 667* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1947 | 31* | 36* | - | 36* | 99* | 166* |
| 1948 | -115* | -1* | - | -1* | 199* | 83* |
| 1949 | 20* | -15** | - | -15* | 6* | 21* |
| 1950 | 4* | - 14* | - | 14* | 84* | 102* |
| 1951 | $58^{*}$ | -13* | - | -13* | -40* | 5* |
| 1952 | 91* | 3** | - | 3* | -51* | 43* |
| 1953 | 104* | -13* | - | -13* | 83* | 174* |
| 1954 | 210* | -14* | - | -14* | 172* | 267* |
| 1955 | 128* | -31* | - | -31* | -171* | -74* |
| 1956 | 129* | -41* | - | -41* | -51* | 37* |
| 1957 | 95* | -5* | - | -5* | -96* | -6* |
| 1958 | 74* | 16* | - | 16* | 76* | 166* |
| 1959 | 77* | 40* | - | 40* | 183* | 300* |
| 1960 | 126* | -29* | 153* | 122* | -292* | -44* |
| 1961 | 126* | -10* | 82* | 72* | -244* | -46* |
| 1962 | 34* | 6* | -233* | -227* | 429* | 236* |
| 1963 | 87* | 6* | - | 6* | 375* | 468* |
| 1964 | 241* | 2* | - | 2* | -10* | 233* |
| 1965 | 216* | 32* | 96* | 127* | -54* | 289* |
| 1966 | 82* | -14* | 102* | 88* | -174* | -4* |
| 1967 | 139* | 12* | 15* | 27* | $508{ }^{\text {a }}$ | $674{ }^{\text {a }}$ |
| 1968 | 84* | 19* | 13* | 32* | 233* ${ }^{\text {a }}$ | $349{ }^{\text {a }}$ |
| 1969 | 295* | -57* | -2* | -59* | $-109 *^{\text {a }}$ | $27^{\text {a }}$ |
| 1970 | 346* | -54* | 164* | 110* | 374* ${ }^{\text {a }}$ | $830^{\text {a }}$ |
| 1971 | 255* | 14* | -388* | -374* | 1,174* ${ }^{\text {a }}$ | 1,055 ${ }^{\text {a }}$ |
| 1972 | 489* | 43* | 119* | 162* | 866* ${ }^{\text {a }}$ | 1,527 ${ }^{\text {a }}$ |
| 1973 | 353* | -29* | 1,320* | 1,291* | -991* ${ }^{\text {a }}$ | $653^{\text {a }}$ |
| 1974 | 752* | 105* | -511* | -406* | 1,091* ${ }^{\text {a }}$ | 1,437 ${ }^{\text {a }}$ |
| 1975 | 829* | 22* | 62* | 83* | 1,106* ${ }^{\text {a }}$ | 2,018 ${ }^{\text {a }}$ |
| 1976 | 821* | 3* | 817* | 820* | 343* | 1,984 |
| 1977 | 1,017* | 103* | -621* | -518* | 3,693* | 4,192 |
| 1978 | 1,256* | -5* | 86* | -91* | 2,711* | 3,876 |
| 1979 | 846* | 39* | -293* | -254* | 1,919* | 2,511 |
| 1980 | ${ }^{7400^{*}}$ | 25** | -806* |  | 1,209** | $1,168$ |
| Total ${ }^{\text {d }}$ | 2,928* | 213* | - | 213* | 15,223* | 25,364* |

Source: CSO, Financial Statistics (for chenges in $\mathrm{M}_{1}$ ); Table 11.
aThere have been a number of breaks in this series; the changes in money stock ( $M_{1}$ ) and comercial banking net contribution allow for the breaks, and where marked do not agree with the change over the year as shown in Table 11. b1946-80
*Estimate

## C. Earnings from the credit issue

(i) The Bank of England, Banking Department

Just as the Issue Department has the benefit of the Note Issue to invest in securities, so the Banking Department has the amount of Bankers Deposits, and occasionally Special Deposits. The relevant amounts at end-year are as shown in Table 11 (page 28).

The 'standardised' amount of income which could be earned on these deposits, assuming that Bankers Deposits were invested at the average rate for government securities shown in Table 5 (page 18), and the Special Deposits at the average Treasury Bill rate also shown in that table, is shown in Table 13 (page 33).

This is the amount of income which could be earned if all the deposits in the Banking Department were invested in govermment and other securities, in the same way as bankers deposits are.

In fact, of course, the banking affairs of the Bank of England mix up the pure control side with other banking business, so that separate figures are not available to check whether these amounts are about right. However, Bank of England accounts do show that the rate of interest received on their government securities was about the same as that shown in Table 5 (page 18) over the period 1971 to 1980 (the only years for which figures are published). The following table shows the comparison for government securities:

|  | Calculated <br> average $^{2}$ | sccountg <br> average |  | Calculated <br> everage | Accounta <br> average |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1971 | 7.9 | 7.5 | 1976 | 13.4 | 12.5 |
| 1972 | 8.4 | 8.5 | 1977 | 11.6 | 12.9 |
| 1973 | 10.6 | 9.7 | 1978 | 12.0 | 13.5 |
| 1974 | 13.8 | 11.6 | 1979 | 12.9 | 15.5 |
| 1975 | 13.0 | 12.3 | 1980 | 13.8 | 15.0 |

[^1]TABLE 13
Income from issues of credit
( E million)
The Bank of England, Banking Department
Commercial Banks credit issue


| 1946 | 276* | 7* | - | - | 7* | 3,276* | 79* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1947 | 297* | 7* | - | - | 7* | 3,612* | 90* |
| 1948 | 314* | 8* | - | - | 8* | 3,761* | 94* |
| 1949 | 306* | 9* | - | - | 9* | 3,864* | 108* |
| 1950 | 306* | 9* | - | - | $9 *$ | 3,909* | 113* |
| 1951 | 306* | 9* | - | - | 9* | 3,931* | 122* |
| 2952 | 301* | 12* | - | - | 22* | 3,895* | 252* |
| 1953 | 296* | 11* | - | - | 12* | 3,901* | 148* |
| 1954 | 283* | 10* | - | - | 10* | 4,028* | 137* |
| 1955 | 260* | 11* | - | - | 12* | 4,028* | 165* |
| 1956 | 224* | 11* | - | - | 11* | 3,917* | 196* |
| 1957 | 201* | 10* | - | - | 10* | 3,844* | 200* |
| 1958 | 207* | 11* |  | - | 11* | 3,834* | 199* |
| 1959 | 235* | 12* | - | - | 12* | 3,963* | 194* |
| 1960 | 240* | 14* | 75* | 4* | $18 *$ | 3,909* | 223* |
| 1961 | 221* | 14* | 192* | 10* | 24* | 3,641* | 226* |
| 1962 | 219* | 12* | 116* | 5* | 17* | 3,733* | 213* |
| 1963 | 225* | 11* | - | - | 11* | 4,135* | 213* |
| 1964 | 229* | 13* | - | - | 13* | 4,318* | 246* |
| 1965 | 245* | 16* | 48* | 3* | 19* | 4,286* | 283* |
| 1966 | 254* | 18* | 147* | 9* | 27* | 4,172* | 288* |
| 1967 | 253* | 17* | 205* | 12* | 29* | 4,333* | 290* |
| 1968 | 268* | 20* | 219* | 15* | 35* | 4,695* | 352* |
| 1969 | 249* | 22* | 225* | 17* | 39* | 4,754* | 423* |
| 1970 | 194* | 17* | 306* | 21* | 38* | 4,883* | 420* |
| 1971 | 174* | 14** | 194* | 11* | 25* | 5,853* | 462* |
| 1972 | 202* | 17* | 59* | 3* | 20* | 7,098* | 596* |
| 1973 | 209* | 22* | 779* | 72* | 94* | 7,058* | $748^{*}$ |
| 1974 | 247* | 34* | 1,183* | 135* | 169* | 7,104* | 980* |
| 1975 | 311* | 40* | 958* | 98* | 138* | 8,565* | 1,113* |
| 1976 | 323* | 43* | 1,397* | 156* | 199* | 9,652* | 1,293* |
| 1977 | 376* | 44* | 1,495* | 114* | 158* | 11,670* | 1,354* |
| 1978 | 425* | 51* | 1,142* | 97* | $148 *$ | 14,872* | 1,785* |
| 1979 | 442* | 57* | 952* | 124* | 181* | 17,187* | 2,217* |
| 1980 | 474* | 65* | 403* | 61* | 126* | 18,751* | 2,588* |

Sources: Tables 5 and 11
${ }^{\text {a Average }}$ of beginning and end of year figures from Table 11 (page 28)
$b_{\text {Applying the British government securities yield from Table } 5 \text { (page 18) }}$ to the average holding. ${ }^{\text {applying the Treasury Bill rate from Table } 5}$ (page 13) to the average holding.

[^2]The total of the standardised amount of interest which could have been earned from these deposits, over the period 1946-80, was about $\mathrm{El}, 700$ million. This is a comparatively small amount, partly due to the slow growth in bankers deposits as the cash ratio has gradually gone out of use.

## (ii) Commercial Banks

Commercial banks earn interest by making loans and advances from the deposit money they have created; they have paid virtually no interest on the amount of private sector sight deposits included in $M_{1}$, and hence on the amount of credit created as shown in Table 12 (page 31). The pattern of investment in loans and advances, etc., is shown in Table 9 (page 25). This includes also investment of other deposits, which make up $M_{3}$ sterling, and which in general have come from time deposits - that is, from deposits which cannot be drawn upon with a cheque.

In Table 13 (page 33) is shown as estimate of the amount which could have been earned from the credit created by the commercial banks if that credit, as shown in Table 11 (page 28), earned interest at the yield rate for government securities as shown in Table 5 (page 18). This is the amount the government would have earned in the Bank of England if that, amount of credit had been issued by the Bank as an increase in the note issue. The total amount earned for 1946-80 would have been $\kappa 18,300$ million, say, $£ 17,300$ million after management expenses, which compares with an amount of about $£ 9,800$ million earned from the actual note issue, as calculated in Section $C$ of Chapter I. That is, if the government had created all the credit making up $M_{1}$ instead of only the cash and deposits with the Bank of England, the total interest earned (for sending back to the Treasury) would have been about $£ 27,000$ million instead of about £9,800 million in the thirty-six year period.

## 3. The Government borrowing requirement

A. How it was

Over the period 1970-80 the central government paid out £40,709 million in debt interest (mainly the national debt); this formed the main part of the central government borrowing requirement, which totalled $£ 56,982$ million over that period.

The amount the government had to borrow was obtained mainly by \&7, 815 million from the issue of notes and coin, and by £ 48,578 million from the issue of government securities. Detailed figures for the period 1946-80 are shown in Table 14 (page 36). The national debt in nominal terms increased from £33,079 million at March 1970 to $£ 95,314$ million at March 1980.

The position has been reached where the issue of government securities is necessary to cover the national debt interest, thereby perpetuating the cause of the rise in debt interest. This movement began mainly from 1972, and there is no indication that the government can control the situation which has continued to develop.

TABLE 14
Central government borrowing requirement
Debt
interest ${ }^{\text {a }} \begin{aligned} & \text { Other net } \\ & \text { payments }\end{aligned} \quad \begin{aligned} & \text { Total } \\ & \text { borrowing }\end{aligned}$
Funded by: borrowing
Noteg

coin $^{\text {a }}$$\quad$| Issue of |
| :--- |
|  |
|  |
| goverment |
| securities |$\quad$ Other ${ }^{\text {d }}$

| 1946 | 484* | 363* | 847* | 50* | $34{ }^{\text {e }}$ | 763* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1947 | 517* | -313* | 204* | $0^{*}$ | $-330{ }^{\text {e }}$ | 534* |
| 1948 | 507* | -859* | -352* | -120* | -322 ${ }^{\text {e }}$ | 90* |
| 1949 | 505* | -729* | -224* | 30* | $-411{ }^{\text {e }}$ | 157* |
| 1950 | 505* | -818* | -313* | $30^{*}$ | $14{ }^{\text {e }}$ | -357* |
| 1951 | 548 | -295** | 253* | 80* | $694{ }^{\text {e }}$ | -521* |
| 1952 | 607 | $-1{ }^{\text {e }}$ | $606{ }^{\text {e }}$ | 100 | $125{ }^{\text {e }}$ | $381{ }^{\text {e }}$ |
| 1953 | 637 | $-110^{e}$ | $527{ }^{\text {e }}$ | 87 | 249 | $191{ }^{\text {e }}$ |
| 1954 | 635 | $-432^{\text {e }}$ | $203^{\text {e }}$ | 126 | -74 | $151{ }^{\text {e }}$ |
| 1955 | 705 | -259 | 446 | 136 | -228 | $538{ }^{\text {e }}$ |
| 1956 | 720 | -669 ${ }^{\text {e }}$ | $51^{\text {e }}$ | 124 | 14 | -87e |
| 1957 | 702 | -531 | $171{ }^{\text {e }}$ | 126 | -29 | $74{ }^{\text {e }}$ |
| 1958 | 776 | -696 ${ }^{\text {e }}$ | $80^{e}$ | 42 | 132 | -94 ${ }^{\text {e }}$ |
| 1959 | 770 | $-614^{e}$ | $156{ }^{\text {e }}$ | 85 | -305 | $376{ }^{\text {e }}$ |
| 1960 | 857 | $-550^{\text {e }}$ | $307{ }^{\text {e }}$ | 123 | 148 | $36{ }^{\text {e }}$ |
| 1961 | 893 | -660 ${ }^{\text {e }}$ | 233 | 97 | -218 | 354 |
| 2962 | 874 | $-939{ }^{\text {e }}$ | $-65{ }^{\text {e }}$ | 6 | 599 | -670 |
| 1963 | 930 | -777 | $153{ }^{\text {e }}$ | 154 | -137 | 136 |
| 1964 | 937 | $-503{ }^{\text {e }}$ | $434{ }^{\text {e }}$ | 157 | -114 | $391{ }^{\text {e }}$ |
| 1965 | 968 | $-358{ }^{\text {e }}$ | $610^{e}$ | 193 | 222 | $195{ }^{\text {e }}$ |
| 1966 | 1,036 | $-493{ }^{\text {e }}$ | $543^{\text {e }}$ | 148 | 217 | $178{ }^{\text {e }}$ |
| 1967 | 1,105 | $50^{\text {e }}$ | 1,155 ${ }^{\text {e }}$ | 152 | 529 | $474{ }^{\text {e }}$ |
| 1968 | 1,240 | -477 | 763 | 186 | -506 | 1,083 |
| 1969 | 1,280 | -2,173 | -893 | 197 | 183 | -1,273 |
| 1970 | 1,298 | -1,962 | -664 | 231 | -272 | -623 |
| 1971 | 1,384 | -747 | 637 | 243 | 3,361 | -2,967 |
| 1972 | 1,596 | 4 | 1,600 | 578 | -519 | 1,541 |
| 1973 | 1,835 | 496 | 2,331 | 544 | 1,543 | 244 |
| 1974 | 2,232 | 1,291 | 3,523 | 788 | 664 | 2,071 |
| 1975 | 2,759 | 5,586 | 8,345 | 673 | 5,208 | 2,464 |
| 1976 | 3,736 | 3,050 | 6,786 | 837 | 5,399 | 550 |
| 1977 | 4,642 | -173 | 4,469 | 1,044 | 7,293 | -3,868 |
| 1978 | 5,632 | 2,739 | 8,371 | 1,286 | 5,052 | 2,033 |
| 1979 | 6,934 | 3,496 | 10,430 | 1,199 | 10,145 | -914 |
| 1980 | 8,661 | 2,493 | 11,154 | 392 | 10,704 | 58 |

Sources: National Income \& Expenditure ('Blue Books'); Bank of England Statistical Abstracts $1 \& 2 ; \mathrm{CSO}_{\mathrm{B}}$ Financial Statistics
$a_{\text {Mainly national debt interest. }}$ Including service of Consolidated Fund (current expenditure), loans to local authorities etc. crrom Table 4.
${ }^{\text {d}}$ Including Treasury Bills, national savings, net overseas financing, etc.
${ }^{\text {en }}$ Not strictly comparable with later figures.
*Estimate

## B. How it could have been

As shown above, by issuing credit, the banking sector deprived the Government of finance, over the period 1970-80, amounting to about $£ 13,500$ million. This is a conservative estimate as it is based on a very restricted definition of credit (page 29). There is a further potential $£ 36,000$ million arising from the increase in 'time' credit which forms the basis of the wide definition of money stock. If that could have been channelled to the use of the Government, a large part of the $\mathcal{\&} 48,600$ million issue of government securities could have been avoided.

Further, the estimated amount of interest earned even on the restricted definition of credit would have been, over 1946-80, about $£ 17,000$ million after allowing for management expenses (page 34), and the Government could legitimately consider that it has been deprived of this revenue. For 1980 the estimated amount was about $£ 2,500$ million, and it could also be argued that at least that amount should be returned to the Government.

There is a case for taking the idea one stage further, and recommend that the Government should take into its own hands the issue of certain forms of credit in addition to the issue of notes which it already controls. This is not a new idea. Lack of monetary control in the depression of the early 1930 s led Irving Fisher to propose that the US Government should take over the issue of credit, mainly for the purpose of obtaining better and direct control of any situation. In his book '100\% Money' (New York, 1935) he proposed that the Government should require all 'checking' deposits (accounts on which it is possible to draw a cheque) to be backed by 100\% in cash or deposits with the Federal Reserve Banks. This idea of $100 \%$ backing could be applied now to the United Kingdom.

For the United Kingdom, we suggest that the existing mechanisms could be used. That is, that the power to create
credit should be regulated by the Treasury, but that the executive power should rest with the Bank of England. Since the government takes responsibility for the proper conduct of the country's economic affairs, it is right that it should, through the Treasury, have direct control over the amount of credit to be created in the economy (whether such power in fact rests with the Treasury or with government ministers is another matter).

The procedure envisaged is that the Treasury should issue Treasury 'credits' to the Bank of England, which would then hold these against the issue of notes, which it would control as it does now, and also against the issue of credit, which would be controlled by the Treasury through the number of Treasury credits issued. The Treasury credits themselves could be in the form of actual notes or bearer bonds of, say, $\mathcal{L}, 000$ million and $£ 500$ million. This procedure is analagous to the procedure adopted in the $1914-18$ war whereby the Treasury issued its own notes, the main one of which was known as the 'Bradbury', although in that case the issue was to the public. Here, we have proposed that the Bank of England issues its own credits, using the Treasury credits as backing.

Concerning the timing of any change-over, this could be carried out best over-night. In round figures, the Treasury would issue $£ 30,000$ million in credits to the Bank of England. The first step is for the Bank of England to hand back to the Treasury the $£ 10,000$ million in securities it holds against the note issue, replacing this with credits. Instead of the Treasury paying interest to the Issue Department, and receiving it back later, the amounts are not paid in the first place, and therefore do not need to be refunded.

Concerning the other $£ 20,000$ million, the Bank of England could issue this to Commercial Banks as payment for suitable investments and loans held by them, say, for the $£ 5,000$
million government stock and treasury bills, etc., held by the banks (see table 9, page 25), plus $£ 15,000$ million in market loans and bills and other suitable investments. Then the Bank of England could either immediately realise nonGovernment investments on behalf of the Treasury, or carry out a policy of gradually changing them into government securities as they become due for redemption. Either way the effect is that the Treasury could cancel the $£ 8,500$ million roughly of government securities held by the Bank of England (this affects the total in issue, but not the overall funding position), and another $£ 21,500$ million of govermment securities in due course.

What amount should the new issue be? The outline in the previous chapter has worked on the basis of money stock $M_{1}$, which includes only private sector sight deposits in addition to notes and coin. The amount of private sight deposits was about 221,000 million at end 1980, while the amount of private sector time deposits was $£ 34,000$ million. One of the features of banking since the war, and especially since the early 1970's, has been the growth in time deposits relative to sight deposits; from the Appendix Table 19 (page 48), it can be seen that time deposits of the private sector, at $£ 18,018$ million overtook total money stock $M_{1}$, at 213,303 million, in 1973. The precise definition of the 'current' accounts to be included 'above the line' in the Banking balance sheet, and therefore against which Treasury or Bank of England credits must be held as to 100\%, can vary: Irving Fisher envisaged the definition as being of a 'checking' account - one on which it was possible to draw a cheque and therefore one which is used instead of cash. As there is now a grey area between a pure checking account and a 'deposit' account - which may or may not require notice of withdrawal - it would probably be best to fix a fairly wide definition; this could be any account on which withdrawal time is less than 1 month. It is not possible to know from published information to what level this would
raise the amount 'above the line', but it could perhaps be defined so as to increase this from the $£ 20,000$ million mentioned above to say $£ 30,000$ million; this would extend the saving and control accruing to the Treasury.

If such a system had been brought in for 10 December 1980, the general picture would be as outlined in the following balance sheets, using the restricted definition of money stock $\mathrm{M}_{1}$ :

| Treasury |  |  |  |
| :---: | :---: | :---: | :---: |
| Liabilities | ¢ million | Assets | e million |
| Treasury credits | 31,214 ${ }^{\text {a }}$ | National assete (roads, land, etc, etc) | 31,214 |

a Money stock $\mathrm{M}_{1}$
Bank of England, Note and Credit Deportment

| Liabilities | £ million | Assets | \& million |
| :--- | :--- | :--- | :--- |
| Bank of England note | $10,625^{\text {a }}$ | Treasury credits | 31,214 |
| issue |  |  |  |
| Bank of England credite | $\underline{20,589}$ |  | $\overline{31,214}$ |



Where does this leave the banks? They are freed from the worry of deciding how much credit they should create, and perhaps from the fear of windfall tax and of nationalisation. They are able to carry on their main business of operating current accounts for the convenience of customers, although perhaps raising charges on these, and of taking deposits and making advances. This leads to the next stage of credit control: how should the total banking business be limited? In the past it has been usual to limit expansion by fixing a ratio of deposits to a base defined in terms of cash or reserves. This has been to look at the wrong side of the balance sheet. The problem is not one of 'money' or 'deposits', but one of 'credit' or 'advances'. It is the level of advances which should be fixed in terms of the amount 'above the line'. That is, in the balance sheet for Commercial banks shown on page 40 , the level of advances, at $£ 52,932$ million is about $2 \frac{1}{2}$ times the level 'above the line' of $£ 21,626$ million. The Treasury could fix the level of advances at about $2 \frac{1}{2}$, or say 2 if the above the line definition was extended to increase the base amount to about $£ 30,000$ million.

The merit of this proposal is that there could be direct control of the base, and a direct and varying control, not on deposits, but on the point that really matters - the level of advances to business and to the personal sector. Banks must hold 'Credits' to be able to make advances, and they must operate current accounts to make it economical to hold Credits. The Treasury controls the level of Credits, and the ratio of Advances to total Credits and Cash held. If business needs more loans the Treasury can act directly to ease the position.

What would have happened if this system had been brought in after the 1939-45 war? A notional outline is included in Table 15 (page 43) of the reduction which would have resulted in the amount of debt interest payable because of the interest
saved on Treasury credits; this is the amount shown in Table 13 (page 33) to be a reasonable amount for the credit issue concerned. The amount of debt interest payable is then reduced over 1970-80 from the $\{40,709$ million actual (Table 14, page 36) to $£ 27,153$ million estimated notional. Further, this saving reduces the borrowing requirement, and the new amounts are also shown in Table 15. Again, using the Treasury credit system, whereby such credits are the same as notes (and could in fact be issued as notes) an extra source of finance is obtained alongside the finance from notes and coin. These amounts are shown in Table 12 (page 31), and in Table 16 (page 44) the effect of using this form of finance is shown. There is a notable reduction in the need to issue government securities, from the actual, for 1970-80, of 248,578 million (Table 14), to $£ 21,527$ (from Table 16).

The government debt becomes manageable again, even without tapping the potential source of additional Treasury credits provided by the possibility of requiring 100\% backing for forms of deposit other than current accounts.

TABLE 15
Central government borrowing requirement: how it could have been

|  | Debt interest | Less <br> Interest saved ${ }^{\text {a }}$ | Notional <br> debt <br> interest | Other net payments | Notional borrowing requirement |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1946 | 484* | 79* | 405* | 363* | $768 *$ |
| 1947 | 517* | 90* | 427* | -313* | 114* |
| 1948 | 507* | 94* | 413* | -859* | -446* |
| 1949 | 505* | 108* | 397* | -729* | -332* |
| 1950 | 505* | 113* | 392* | -818* | -426* |
| 1951 | 548 | 122* | 426* | -295* | 131* |
| 1952 | 607 | 152* | 455* | $-1{ }^{\text {c }}$ | 454* |
| 1953 | 637 | 148* | 489** | $-110^{\text {c }}$ | 379* |
| 1954 | 635 | 137* | 498* | $-432{ }^{\text {c }}$ | 66* |
| 1955 | 705 | 165* | 540* | -259 ${ }^{\text {c }}$ | 281* |
| 1956 | 720 | 196* | 524* | -669 ${ }^{\text {c }}$ | -145* |
| 1957 | 702 | 200* | 502* | -531 ${ }^{\text {c }}$ | -29* |
| 1958 | 776 | 199* | $577 *$ | -696 ${ }^{\text {c }}$ | -119* |
| 1959 | 770 | 194* | 576* | $-614^{\text {c }}$ | -38* |
| 1960 | 857 | 223* | 634* | -550 ${ }^{\text {c }}$ | 84* |
| 1961 | 893. | 226* | 667* | $-660^{\circ}$ | $7{ }^{*}$ |
| 1962 | 874 | 213* | 661* | -939 ${ }^{\text {c }}$ | -278* |
| 1963 | 930 | 211* | 719* | -777 ${ }^{\text {c }}$ | $-58{ }^{\circ}$ |
| 1964 | 937 | 246* | 691* | -503 ${ }^{\text {c }}$ | 188* |
| 1965 | 968 | 283* | 685* | $-358^{\text {c }}$ | 327* |
| 1966 | 1,036 | 288* | $748^{*}$ | -493 ${ }_{\text {c }}$ | 255* |
| 1967 | 1,105 | 290* | 815* | $50^{\text {c }}$ | 865* |
| 1968 | 1,240 | 352* | 888* | -477 | 411* |
| 1969 | 1,280 | 423* | 857* | -2,173 | -1,316* |
| 1970 | 1,298 | 420* | 878* | -1,962 | -1,084* |
| 1971 | 1,384 | 462* | 922* | -747 | 175* |
| 1972 | 1,596 | 596* | 1,000* | 4 | 1,004* |
| 1973 | 1,835 | 748* | 1,087* | 496 | 1,583* |
| 1974 | 2,232 | 980* | 1,252* | 1,291 | 2.543* |
| 1975 | 2,759 | 1,113* | 1,646* | 5,586 | 7,232* |
| 1976 | 3,736 | 1,293* | 2,443* | 3,050 | 5,493* |
| 1977 | 4,642 | 1,354* | 3,288* | -173 | 3,115* |
| 1978. | 5,632 | 1,785* | 3,847* | 2,739 | 6,586* |
| 1979 | 6,934 | 2,217* | 4,717* | 3,496 | 8,213* |
| 1980 | 8,661 | 2,588* | 6,073* | 2,493 | 8,566* |

[^3]TABLE 16
Funding of the central government borrowing requirement: how it could have been

|  | Notional borrowing requirement | Funded by: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Noter and coin | Treasury credits (excluding notes) | Other funding (excluding government securities) | Iseue of government securities sequired |
| 1946 | 768* | $50 *$ | 574* | 763** | -619* |
| 1947 | 124* | $0^{*}$ | 99* | 534* | -519* |
| 1948 | -446* | -120* | 199* | 90* | -615* |
| 1949 | -332* | 30* | 6* | 157* | -525* |
| 1950 | -426* | 30* | 84* | -357* | -183* |
| 1951 | 131** | 80* | -40* | -521* | 612* |
| 1952 | 454* | 100 | -51* | 381 | 24* |
| 1953 | 379* | 87 | 83* | $191{ }^{\text {b }}$ | 18* |
| 1954 | 66* | 126 | 171* | $151{ }^{\text {b }}$ | -382* |
| 1955 | 291* | 136 | -171* | $538^{\text {b }}$ | -222* |
| 1956 | -145* | 124 | -51* | -87 | -131* |
| 1957 | -29* | 126 | -96* | $74{ }^{\text {b }}$ | -133* |
| 1958 | -119** | 42 | 76* | -94b | -143** |
| 1959 | -38* | 85 | 183* | $376{ }^{\circ}$ | -682* |
| 1960 | 84* | 123 | -292* | $36{ }^{\text {b }}$ | 217* |
| 1961 | 7* | 97 | -244* | 354 | -200* |
| 1962 | -278* | 6 | 429* | -670 | -43* |
| 1963 | -58* | 154 | 375* | $136{ }^{\text {b }}$ | -723* |
| 1964 | 188* | 157 | $-10^{*}$ | $391{ }^{\text {b }}$ | -350* |
| 2965 | 327* | 193 | -54* | $195{ }^{\text {b }}$ | -7* |
| 1966 | 255* | 148 | -174** | 178 | 103* |
| 1967 | 865* | 152 | 508* | $474{ }^{\circ}$ | -269** |
| 1968 | 411* | 186 | 233* | 1,083 | -1.091* |
| 1969 | -1,316* | 197 | -109** | -1,273 | -131* |
| 1970 | -1,084** | 231 | 374** | -623 | -1,066* |
| 1971 | 175* | 243 | 1,174* | -2,967 | 1,725* |
| 1972 | 1,004* | 578 | 866* | 1,541 | -1,981* |
| 1973 | 1,583* | 544 | -99:* | 244 | 1,786* |
| 1974 | 2,543* | 788 | 1,091* | 2,071 | -1,407* |
| 1975 | 7,232* | 673 | 1,106* | 2,464 | 2,989* |
| 1976 | 5,493* | 837 | 343* | 550 | 3,763* |
| 1977 | 3,115* | 1,044 | 3,693* | -3,868 | 2,246* |
| 1978 | 6,586* | 1,286 | 2,711* | 2,033 | 556* |
| 1979 | 8,213* | 1,199 | 1,919* | -914 | 6,009* |
| 1980 | 8,566* | 392 | 1,209* | 58 | 6,907* |
| Sourc <br> acomm <br> Not <br> Gati | Tables 12 reial banking trictly compe ate | 14 and 15. creation of able with la | credit, Tabl ter figures. | 12 (page 31). |  |

## APPENDIXA - ADDITIONAL TABLES

TABLE 17
United Kingdom notes and coin outstanding
(amounts in $\mathbf{£}$ million for the average of December for each year ${ }^{a}$ )
Notes and coin outstanding

| Bank of | Scottish | Northern <br> England | banks $^{\text {Ireland }}$ | Coin $^{\text {c }}$ |
| :--- | :--- | :--- | :--- | :--- |$\quad$ Total


| 1945 | 1,388 | 66 | 16 | 125 | 1,595 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1946 | 1,438 | 71 | 16 | 133 | 1,657 |
| 1947 | 1,450 | 69 | 14 | 138 | 1,671 |
| 1948 | 1,310 | 67 | 12 | 159 | 1,548 |
| 1949 | 1,338 | 69 | 11 | 159 | 1,577 |
| 1950 | 1,369 | 71 | 10 | 152 | 1,602 |
| 1951 | 1,438 | 77 | 9 | 152 | 1,676 |
| 1952 | 1,550 | 86 | 9 | 151 | 1,796 |
| 1953 | 1,655 | 92 | 8 | 158 | 1,914 |
| 1954 | 1,755 ${ }^{\text { }}$ | 98 | 8 | 161 | 2,023 |
| 1955 | 1,888 | 105 | 8 | 166 | 2,168 |
| 1956 | 2,013 | 114 | 10 | 173 | 2,311 |
| 1957 | 2,113 | 120 | 10 | 180 | 2,423 |
| 1958 | 2,170 | 121 | 9 | 182 | 2,483 |
| 1959 | 2,275 | 124 | 9 | 185 | 2,593 |
| 1960 | 2,388 | 128 | 9 | 191 | 2,716 |
| 1961 d | 2,463 | 131 | 8 | 204 | 2,806 |
| $1962{ }_{\text {d }}$ | 2,469 | 127 | 8 | 213 | 2,816 |
| $1962{ }^{\text {d }}$ | 2,469 | 127 | 8 | 205 | 2,808 |
| 1963 | 2,613 | 129 | 7 | 206 | 2,955 |
| 1964 | 2,770 | 131 | 7 | 208 | 3,116 |
| 1965 | 2,925 | 134 | 8 | 212 | 3,279 |
| 1966 | 3,063 | 135 | 9 | 221 | 3,428 |
| 1967 | 3,213 | 141 | 10 | 225 | 3,589 |
| 1968 | 3,338 | 146 | 13. | 238 | 3,735 |
| 1969 | 3,450 | 153 | 13 | 334 | 3,950 |
| 1970 | 3,670 | 160 | 20 | 349 | 4;199 |
| 1971 | 3,865 | 173 | 25 | 345 | 4,408 |
| 1972 | 4,380. | 189 | 28 | 359 | 4,955 |
| 1973 | 4,830 | 215 | 30 | 383 | 5,458 |
| 1974 | 5,631 | 248 | 31 | 415 | 6,325 |
| 1975 | 6,310 | 283 | 35 | 450 | 7,078 |
| 1976 | 7,075 | 310 | 38 | 483 | 7,906 |
| 1977 | 8,144 | 362 | 43 | 509 | 9,058 |
| 1978 | 9,300* | 413* | 47* | 560* | 10,320* |
| 1979 | 10,300* | 448* | 50* | 600* | 11,400* |
| 1980 | 10,800* | 499* | 55* | 650* | 12,000* |

Source: Bank of England, Statistical Abstracts 1 \& 2, Quarterly Bulletins aAverage of Wednesdays for Bank of England and London Clearing Banks; average of four weeks approximating to December for Scottish and Northern Ireland banks All but a very small amount is backed by Bank of England notes included in their total callowing for coin lost or destroyed. dFrom 1962 there was a change in the method of estimating wastage of coin. Figures are shown both ways for 1962.
*Estimate

TABLE 18
Notes and coin outside the Benk of England (\& million), 1919-44 Annual averages (average of weekly figures)

## Held by banka (till money)

1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
$1929^{\text {a }}$

- 107

106
19319
19329
193310
1934102
1935
1936
1937
1938
1939
1940
1941
1942
1943
2944

116
110
115
111
107
107
107
106
108
108
107
106
99
95

106
112
117
121
132
141
142
147
149
155

In circulation with the public

414
429
401
365
353
356
350

- 452

343451
$341 \quad 449$
332439
$328 \quad 434$
$331 \quad 430$
$337 \quad 432$
343444
350452
362468
$394 \quad 506$
440 • 557
446 . 567
459591
$525 \quad 666$
$608 \quad 750$
769 . 916
933 1,082
1,105 1,260

Total outaide the Bank of Ehgland

Source: Bank of England Quarterly Bulletin, March 1981.
aThe figure for ciralation with the public and for till money is affected by a change in geographical coverage following the isgue of notes by banks in the Irish Free State (Republic of Ireland); figures before 1929 are not strictly comparable vith those from 1929.

TABLE 18a
Notes and coin outside the Bank of England ( $\mathbf{~}$ million)
Annual averages ${ }^{\text {a }}$ At end-year ${ }^{\text {b }}$
Held by bankg

(till money) \begin{tabular}{l}
In circulation <br>
with the public

$\quad$

Total <br>
outside the <br>
Bank of England

$\quad$

In circulation <br>
with the public
\end{tabular}

| 1945 | 153 | 1,263 | 1,416 | 1,287* |
| :---: | :---: | :---: | :---: | :---: |
| 1946 | 159 | 1,341 | 1,500 | 1,366* |
| 1947 | 172 | 1,361 | 1,533 | 1,387* |
| 1948 | 177 | 1,239 | 1,416 | 1,263* |
| 1949 | 191 | 1,248 | 1,439 | 1,272* |
| 1950 | 199 | 1,244 | 1,443 | 1,268* |
| 1951 | 206 | 1,291 | 1,497 | 1,316* |
| 1952 | 220 | 1,370 | 1,590 | 1,396* |
| 1953 | 228 | 1,462 | 1,690 | 1,490* |
| 1954 | 240 | 1,551 | 1,791 | 1,580* |
| 1955 | 268 | 1,657 | 1,925 | 1,688* |
| 1956 | 281 | 1,765 | 2,046 | 1,799* |
| 1957 | 303 | 1,842 | 2,145 | 1,877* |
| 1958 | 315 | 1,905 | 2,220 | 1,941* |
| 1959 | 324 | 1,969 | 2,293 | 2,006* |
| 1960 | 339 | 2,062 | 2,401 | 2,101* |
| $1961{ }^{\text {a }}$ | 358 | 2,151 | 2,509 | 2,192* |
| $1961{ }^{\text {a }}$ | 385 | 2,119 | 2,504 | 2,192* |
| 1962 | 409 | 2,130 | 2,539 | 2,202* |
| 1963 | 433 | 2,172 | 2,605 | 2,251 |
| 1964 | 485 | 2,286 | 2,771 | 2,451 |
| 1965 | 515 | 2,426 | 2,941 | 2,636 |
| 1966 | 548 | 2,563 | 3,111 | 2,695 |
| 1967 | 561 | 2,633 | 3,194 | 2,815 |
| 1968 | 586 | 2,766 | 3,352 | 2,859 |
| 1969 | 640 | 2,871 | 3,511 | 3,006 |
| 1970 | 682 | 3,067 | 3,749 | 3,320 |
| 1971 | 705 | 3,332 | 4,037 | 3,589 |
| 1972 | 653 | 3,644 | 4,297 | 4,079 |
| 1973 | 703 | 4,091 | 4,794 | 4,37.7 |
| 1974 | 764 | 4,591 | 5,355 | 5,085 |
| 1975 | 791 | 5,341 | 6,132 | 5,904 |
| 1976 | 784 | 6,106 | 6,890 | 6,714 |
| 1977 | 812 | 6,832. | 7,644 | 7,699 |
| 1978 | 849 | 7,943 | 8,792 | 8,904 |
| 1979 | 914 | 9.031 | 9,945 | 9,701 |
| 1980 | 945 | 9,763 | 10,708 | 10,411 |

Sources: Bank of England Quarterly Bulletin, March 1981; Annual Abstract of Statistics; Bank of England Statistical Abstract Number 2, 1975.
$a_{\text {Average of }}$ weekly figures 1945-61; ayerage of monthly figures 1961-80. Figures are shown both ways for 1961. Estimated before 1963 on the basis of annual averages increased by $1.9 \%$ (the actual difference for 1963)
${ }^{C}$ These amounts form the basic quantity for 'money stock' dExcludes Bank of England notes held as backing for issues of Scottish and Northern Ireland notes in excess of their fiduciary issue.
*Estimate

TABLE 19
Money stock, $M_{1}$ and $M_{3}$ sterling

| (amounts in f | million; end-year) |  |
| :---: | :--- | :--- |
| Notes | Private Money |  |
| and coin | sector | stgek |
| With the sight | $\mathrm{M}_{1}$ |  |
| public | deposits |  |


| 1945 | 1,287* | 3,419* | 4,706* | 1,970* | na | 6,676* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1946 | 1,366* | 4,007* | 5,373* | 2,296* | ne | 7,669* |
| 1947 | 1,387* | 4,152* | 5,539* | 2,433* | na | 7,972* |
| 1948 | 1,263* | 4,359* | 5,622* | 2,534* | na | 8,156* |
| 1949 | 1,272* | 4,361* | 5,633* | 2,530* | na | 8,163* |
| 1950 | 1,268* | 4,467* | 5,735* | 2,605* | na | 8,340* |
| 1951 | 1,316* | 4,424* | 5,740* | 2,603* | ne | 8,343* |
| 1952 | 1,396* | 4,387* | 5,783* | 2,799* | na | 8,582* |
| 1953 | 1,490* | 4,467* | 5,957* | 2,896* | na | 8,853* |
| 1954 | 1,580* | 4,644* | 6,224* | 2,902* | na | 9,126* |
| 1955 | 1,688* | 4,462* | 6,150* | 2,724* | na | 8,874* |
| 1956 | 1,799* | 4,388* | 6,187* | 2,769* | ne | 8,956* |
| 1957 | 1,877* | 4,304* | 6,181* | 3,007* | na | 9,188* |
| 1958 | 1,941* | 4,406* | 6,347* | 3,119* | na | 9,466* |
| 1959 | 2,006* | 4,641* | 6,647* | 3,406* | na | 10,053* |
| 1960 | 2,101* | 4,502* | 6,603* | 3,635* | na | 10,238* |
| 1961 | 2,192* | 4,365* | 6,557* | 3,947* | ne | 10,504* |
| 1962 | 2,202* | 4,591* | 6,793* | 3,991* | na | 10,784* |
| 1963 | 2,251 | 5,010* | 7,261* | 4,224* | 3,877* | 11,485* |
| 1964 | 2,451 | 5,043* | 7.494* | 4,634* | 4,276* | 12,128* |
| 1965 | 2,636 | 5,147* | 7.783* | 5,268* | 4,871* | 13,051* |
| 1966 | 2,695 | 5,084* | 7.779* | 5,714* | 5,304* | 13.493* |
| 1967 | 2,815 | 5,627 | 8,442 | 6,306 | 5,883 | 14,748 |
| 1968 | 2,859 | 5,925 | 8,784 | 6,973 | 6,583 | 15,757 |
| 1969 | 3,006 | 5,806 | 8,812 | 7,320 | 6,863 | 16,132 |
| 1970 | 3,320 | 6,315 | 9,635 | 8,031 | 7.530 | 17,666 |
| 1971 | 3,589 | 7,499 | 11,088 | 9,023 | 8,479 | 20,111 |
| 1972 | 4,079 | 8,578 | 12,657 | 12,786 | 12,161 | 25,443 |
| 1973 | 4,377 | 8,926 | 13,303 | 18,743 | 18,018 | 32,046 |
| 1974 | 5,085 | 9,654 | 14,739 | 20,561 | 19,905 | 35,300 |
| $1975{ }^{\text {d }}$ | 5,904 | 11,579 | 17,483 | 20,112 | 19,188 | 37.595 |
| 1976 | 6,714 | 12,753 | 19,467 | 21,693 | 20,772 | 41,160 |
| 1977 | 7,699 | 15,960 | 23,659 | 21,631 | 20,353 | 45,290 |
| 1978 | 8,904 | 18,631 | 27,535 | 24,527 | 23,215 | 52,062 |
| 1979 | 9,701 | 20,345 | 30,046 | 28,631 | 27,374 | 58,677 |
| 1980 | 10,411 | 20,803 | 31,214 | 38,361 | 36,786 | 69,575 |

Sources: Table 11; CSO, Financial Statistics; Bank of England, Statistical Abstracts $1 \& 2$
a From Table 11, 'net contribution' plus cash with banks and bank deposits. Other than private sector time deposits shown, the main item is public sector deposits. CThere have been a number of breaks in the series; a break from 1967 has been adjusted backwards here to 1963 . Before 1963 estimates are especially approximate. dFigures from 1975 are not strictly comparable with those of years before.
*Estimate. na $=$ not available

## APPENDIX B - NOTE ON ADVANCES AND DEPOSITS

In Table 10 the Commercial banking net contribution to money stock $M_{1}$ is measured by subtracting notes, coins and balances with the Bank of England from UK private sector sight deposits, and in the fifth column of Table 12 the Commercial banking net contribution to $M_{1}$ is called 'creation of credit'. To many people it may seem strange that the amount of new credit created by the banks is measured in terms of an increase in deposits rather than an increase in advances. In everyday language 'deposits' means 'real' money which has been deposited with the bank by a customer. He thinks of advances as credit and deposits as real money already existing.

For a long time the banks pretended that they did not actually create new money. It was Reginald McKenna, one time Chancellor of the Exchequer and Chairman of the Midland Bank, who first openly admitted the fact by saying in 1920 that 'every loan creates a deposit'. This expresses a simple fact of double entry book-keeping. When a bank agrees to make a loan to a customer it debits the amount of the loan to him, and to balance the books it has to credit this amount to him as a deposit. The loan is thus an asset in the bank's books and the deposit is a balancing liability. When the customer spends the amount of the loan the bank has to pay out the equivalent cash, and to balance the reduction in its assets it cancels the customer's deposit, which has now been used. The recipient of the cash will pay it into his own bank, which may either be the same bank or another, and they will credit it to him as a deposit. From then onwards that money is indistinguishable from the rest of the money in the banking system. But when the original customer repays his loan the equivalent amount of money is destroyed.

This is of course an over-simplified account of what actually happens. Thousands of such transactions take place every day
and are balanced against one another in the bank clearing system. It does make the point however that the amount by which the 'deposits' in the banking system exceed the notes, coin and balances with the Bank of England, on the assets side of the balance sheet, represents the total amount of credit which has been created by the banks. This comprises all the other items on the assets side of the balance sheet in Table 9 , and includes credit which the banks have created to buy Treasury Bills, Government Stock and other assets.

The 'deception' is still maintained when the control of the money supply is referred to in terms of the banks limiting their deposits, though in fact what is meant is limiting their advances, as pointed out on page 41.
LIST OF PUBLICATIONS
"Can We Afford Politicans?" by Patrick de Laszlo ..... 15p
Inflation and the Function of Monetary Policy in Britain by Edward Holloway ..... 40p
A Built-in-Basic-Economy Stabilizer by L. St. Clare Grondona ..... £1.10p
Inflation by Enoch Powell, MBE, MP ..... 25p
Producer Cartels by Susan Hart ..... 50p
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The Balance of Payments or Are import restrictions necessary? by Dr. Colin Clark, with a foreword by Sir Alec Cairncross ..... 50p
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Britain and Overseas - a quarterly digest of news and views on Britain's economy and our role in overseas trade. Subscription per annum ..... £2.00p
Apply to: Economic Research Council, 55 Park Lane, London W1Y 3DH.


[^0]:    *Estimate

[^1]:    ${ }^{\text {a From Table } 5 \quad \text { From Bank of England Reports, taking interest from }}$ government securities as a dercentage of government aecurities held (average of beginning and end amounts), for years beginning March ist.

[^2]:    *Estimate

[^3]:    Sources: Tables 13 and 14.
    From issue of Treasury credits ('Commercial Banks credit issuei), Table 13. From Table 14. Not strictly comparable with later figures.
    *Estimate.

