

The reasons for the increase of the circulation during the war were numerous and mostly inevitable.

- (a) (i) The growth of total purchasing media through war financing would be likely to involve a proportionate increase in the active circulation.
- (ii) The increase in total purchasing media combined with a shrinkage in the supply of consumers' goods caused a rise in prices, though this was to some extent controlled by the Government through subsidies, etc. A large proportion of consumers' goods is normally paid for in cash, even by persons who have banking accounts. A rise in prices would therefore mean that the population would tend to keep a larger amount than usual of their purchasing power in the form of notes (and coin).
- (iii) Larger banking deposits as part of the increase in total purchasing media would involve a consequent increase in the Till Money (Notes and Coin) of the banks themselves. A proportional rise in Till Money did not in fact occur: indeed it had declined from over one-half of the banks' total cash reserves before the war to one-third by the end of 1944. The yearly average of Wednesday figures of Till Money rose by £25 million between 1939 to 1944. (Bankers' balances at the Bank of England increased in the same period by £80 million).

(b) Doubtless the most important factor was the full employment of a greater number of workers, the higher earnings they enjoyed and the larger proportion of the National Income they received. Industrial workers, and perhaps farmers, usually pay in cash for a greater proportion of their transactions than is customary with other classes of the population. Incidentally, it appears that the payment of wages imposed a considerable strain on large industrial concerns and that, in order to prepare for the weekly payments, they were apt to withdraw currency from the banks a day or two in advance of that normally selected. Since the currency would not be returned

to the

to the banks more quickly than before the war, perhaps more slowly, this circumstance, too, would have some effect on the circulation.

There were many other "frictional" causes delaying the return of notes, such as shorter banking hours, dispersal of the workers and H.M. Forces to places remote from banking offices, delays in the post, and divided households. Persistent air-raids, the evacuation of so large a proportion of the population and the consequent larger number of cross-country journeys all added to the general dislocation.

A contributory cause may well have been the diminution in the number of banking offices, due in part to enemy air attack and in part to efforts to release man power, which caused a lack of banking facilities especially in rural areas.

One reason for the increase of the circulation in 1943 and the first half of 1944 was the large number of Allied troops stationed in this country (who would be unlikely in most cases to open banking accounts).

Many persons who, perhaps for the first time, had accumulated savings may have been too unfamiliar with investing habits and procedure, in spite of the efforts of the National Savings Committee to educate them, to place their savings in the hands of a Government, which in any event offered a low rate of interest (though one more favourable to the small saver than to other investors), or would save up their cash with the object of making a large purchase later, e.g. of furniture. That people may have saved (hoarded) in this form is suggested by the fact that while the circulation rose indices of retail trade changed but little. Shortage of consumer goods, rationing and the purchase tax combined, of course, to restrict spending.

Yet another influence was the holding of notes, and in particular notes of the higher denominations, in order to evade taxation and foreign exchange restrictions, and for use in operations in the Black Market (see below). Though a secondary consideration, it was partly to counter their use for these purposes that the Bank eventually called in (1945) all notes of a denomination higher than £5 (none of which had been issued since the 22nd April 1943).

It is of interest to compare the effect of all these influences on the growth in the circulation with the rise in the net
National

National Income from £4,700 million in 1938 to £8,100 million in 1946, an increase of £3,400, or about 72% (Cmd.7371). In the same period, the active note circulation rose from £505 million (December 1938) to £1,405 million (December 1946), or by 178%.

The factors enumerated under (b) might be the chief causes and some measure of the excess in the percentage rise of the Note Circulation over that of the National Income. Nevertheless, because of the effective absorption of purchasing power through heavy taxation and Government borrowing, the expansion in the note circulation in the U.K. was much less than in any other belligerent country, including the U.S.A., Canada and Australia: less even than in South Africa, and only slightly greater than in the neutral countries Sweden and Switzerland.

The following comparison of the growth in the Active Circulation with that of the Wages, Salaries and Armed Forces Pay and Allowances Bill (National Income) shows that the note circulation and the "pay sheet" were more or less abreast until 1942, and that thereafter the circulation was far in excess of apparent needs.

Calendar Year	Active Circulation			National Income**	
	Average of Wednesdays	Increase on Previous Year	Percentage of 1938	Wages, Salaries & Pay & Allowances of Armed Forces	Percentage of 1938
	£mn.	£mn.		£mn.	
1938	485.6		100	2,923	100
1939	507.3	21.7	104	3,100	106
1940	574.7	67.4	118	3,706	126
1941	652.2	77.5	129	4,373	149
1942	808.3	156.1	167	4,874	167
1943	966.3	168.0	199	5,274	180
1944	1,135.7	169.4	238	5,480	187
1945	1,284.2	148.5	264	5,531	189
1946	1,357.8	73.6	286	5,249	179
1947	1,383.8	26.0	288	5,626	192
1948	1,253.7	- 130.1	258	6,071	208

The rise

The rise in the circulation made it necessary to expand the Fiduciary Issue on 19 dates between 6th December 1938 and 10th December 1946 and by £1,000 million up to the end of the war with Germany; by £50 million on all but two occasions. £70 million was considered necessary at the beginning of December 1942, though the proportion of the Reserve had been lower in June 1940 and was to sink to 1.3% on the day of the victory over Germany.

Just before the outbreak of war the Treasury proposed removing until further notice, the restriction on the amount of securities held against the Note Issue; and at first the Bank thought this a useful step. A few days later, however, on 5th September 1939, the Bank wrote to say that such a change might give an impression that the country was "proceeding straight away to uncontrolled inflation". They thought it better that the usual procedure of raising the limit as and when required should be followed.

The Bank's practice, therefore, during the war was to let the Reserve run down to very low figures and then ask for an increase of £50 million in the Fiduciary Issue. (As already mentioned, on one occasion £70 million was asked for, and at other times this figure had been contemplated.) Criticism of this practice as evidence of a desire by the Bank to increase its Banking Income, to which it might have been open in ordinary times, could hardly occur in wartime, with an Excess Profits Tax of 100%.

The Currency and Bank Note Acts of 1928 and 1939 stipulated that no increases in the Fiduciary Issue above £300 million should continue for more than two years without Parliamentary sanction. Accordingly, a new Defence (Finance) Regulation, 7AA, was passed on 15th August 1941 substituting 4 years for 2 years, and a further extension of the period was introduced in 1943, when 6 years was substituted for 4 by an amendment of 10th August. On this occasion the Bank reminded the Treasury that Parliament had for some time been dissatisfied with legislation by Regulation; but it was eventually thought unnecessary to pass an Act to raise the basic Fiduciary Issue from £300 million to, say, £1,000 million.

Suggestions were made in 1941/42 in the Press and elsewhere that the Fiduciary Issue should be raised by, say, £500 million at one time instead of by periodic increases of £50 million; but the question of an increase of more than £100 million at any one time does not appear to have been seriously considered within the Bank. Since there would have been insufficient securities available in the Banking Department an increase of £500 million would have involved the creation of a large amount of Government securities, with an equivalent increase in Public Deposits.

If the Government had been content to maintain Public Deposits at a high figure and notes had been issued only to meet the Bankers' requirements there would not appear to have been any question of actual inflation. The Government, it is true, could hardly have retained such an abnormal amount on Public Accounts, and might have felt bound to use the funds gradually to reduce the floating debt. The net result of such action would have been to force the banks to hold larger cash balances. To avoid inflation in these circumstances would have required co-operation between the Bank and the other banks; but experience suggests that means to make this successful would have been found.

The public would hardly have tolerated payment of interest by the Government on borrowed money while it had some hundreds of millions at the Bank of England; and the response to War Loans and to saving in general might have been discouraged. The choice of some large figure would have been hazardous and would have appeared to indicate that the Authorities expected the note circulation to rise by that amount at least.

By the Summer of 1943 the Fiduciary Issue was £1,000 million, and when the next rise occurred the Bank took the opportunity to explain the nature of the Fiduciary Issue to the Press, and also to point out that the carrying of unnecessary notes by private individuals had been a factor in raising the Issue, that many minor tragedies occurred every year through the loss or destruction of hoarded notes, and that it was in everyone's interest that all money not required for immediate use should be paid into a bank.

A table of changes from January 1938 is as follows:-

000's omitted

FIDUCIARY ISSUE

✓ Print on form
 (to place in 20th case) + get rid of all these receipts.

Date of Movement	At close of business on previous day			Inter-vening Weeks	Amount of Increase or Decrease	At close of business on date of movement		
	Fiduciary Issue	Notes in Reserve	Proportion			Fiduciary Issue	Notes in Reserve	Proportion
1938		X						
13 Jan.	220,000	64,274	37.4	-	20,000	200,000	45,094	27.0
6 Dec.	200,000	40,170	26.2	47	30,000	230,000	70,260	45.0
1939								
6 Jan.	230,000	71,754	38.7	4	170,000 ^f	400,000	44,894	25.1
1 Mar.	400,000	49,318	32.3	8	100,000*	300,000	47,966	30.8
6 Sept.	300,000	15,737	10.2	27	280,000 ^p	580,000	30,216	18.3
1940								
11 June	580,000	4,280	3.1	40	50,000	630,000	52,866	30.4
1941								
30 Apr.	630,000	6,274	3.8	46	50,000	680,000	56,892	28.7
30 Aug.	680,000	15,553	8.9	18	50,000	730,000	65,576	35.1
2 Dec.	730,000	15,797	8.4	13	50,000	780,000	64,026	33.3
1942								
21 Apr.	780,000	12,928	7.4	20	50,000	830,000	62,131	33.3
28 Jul.	830,000	10,461	6.2	14	50,000	880,000	57,400	30.2
1 Dec.	880,000	6,063	3.7	18	70,000	950,000	74,381	38.6
1943								
13 Apr.	950,000	7,352	4.1	19	50,000	1,000,000	56,616	28.5
5 Oct.	1,000,000	9,404	5.2	25	50,000	1,050,000	58,690	28.3
7 Dec.	1,050,000	10,985	5.7	9	50,000	1,100,000 ^r	58,418	27.4
1944								
7 Mar.	1,100,000	10,655	4.9	13	50,000	1,150,000	59,807	26.0
1 Aug.	1,150,000	7,577	3.2	21	50,000	1,200,000	55,971	22.1
4 Dec.	1,200,000	5,038	2.8	18	50,000	1,250,000	52,306	21.3
1945								
8 May	1,250,000	1,998	1.3	22	50,000	1,300,000	50,300	20.8
3 Jul.	1,300,000	7,200	5.0 2.2	8	50,000	1,350,000	56,700	17.1
10 Dec.	1,350,000	6,100	4.8 2.1	23	50,000	1,400,000	50,400	2.0 17.6
1946								
10 Dec.	1,400,000	11,500	3.7 3.9	52	50,000	1,450,000	56,600	1.6 17.9
1948								
7 Jan.	1,450,000	111,200	2.2 26.3	56	50,000	1,400,000	68,900	16.5
4 Feb.	1,400,000	139,800	2.8 34.6	4	50,000	1,350,000	92,600	23.1
3 Mar.	1,350,000	114,100	3.0 27.9	4	50,000	1,300,000	63,700	15.8
21 Dec.	1,300,000	5,500	4.2 2.1	42	25,000	1,325,000	29,100	7.6
1949								
4 Jan.	1,325,000	42,800	9.6	2	25,000	1,300,000	20,900	5.3

MOVEMENTS OF GOLD

1939			
6 Jan.	To E.E.Account	£200,002	
* 1 Mar.	From E.E.Account	£5,567)
	Bars written up	£259,195) £100,000
	Coin written up	£35,238)
12 Jul.	From E.E.Account	£20,003)
6 Sept.	To E.E.Account (Bars)	£185,824) After writing up to
	(Coin)	£93,081) £8.8/- per ounce.

Examination and Counting of 10s. and £1 Notes

In June 1942 the system of counting and examining all low-denomination notes paid in at the Head Office and Branches was reviewed, and it was decided that in view of the urgent calls on man-power the process of examining each individual note could no longer be justified.

H.M. Treasury agreed, and it was arranged that all such notes should, if necessary for the remaining period of the war, be subjected to only a percentage count and examination; it was hoped that the proportion to be so dealt with would not exceed 50%. By having notes paid in at the Branches sent to London for examination, about 50 women clerks were released from the Branch service; while there was a considerable reduction of note examiners in London. By these means a "pool" of women clerks in the Issue Office was formed who could be used, at any time, at the expense of the percentage counted, for dealing with any routine operation of magnitude, such as a "vesting" of securities. Under the arrangement the average up to the end of 1945 of notes not fully examined was . Full examination was re-instated in November 1946, and was only interrupted when exceptional sickness temporarily depleted staff.

Contact with the banks continued to work smoothly and there was no reason to suppose that the change of practice had become apparent to them. Every endeavour was made to refer as soon as possible to the banks all errors detected when notes were examined; but under a system of a proportionate check at a later stage (i.e. in the Bank Note Office), further differences from time to time came to light. On such occasions, if the amount in question was appreciable, the bank concerned was approached and the difference adjusted; but in the case of trifling differences not discovered until several weeks had elapsed, it was thought preferable not to take the matter up. Any "overs" and "shorts" which were not, for one reason or another, settled were, with Treasury agreement, carried to the Note Issue Expenses Account.

Nevertheless, although experience during recent years had

shown that the number of forgeries of the denominations involved was quite negligible, the Bank decided to re-instate the 100% check as soon as practicable.

Life of £1 and 10s. Bank Notes

As part of their emergency plans which were drawn up prior to the outbreak of war, the bankers agreed that, as they would probably have to carry reserves above their ordinary requirements to relieve the strain on transport and the concentration of supplies in London, they would discontinue the supply of denominational silver coin and re-issue soiled notes of all kinds if necessary, and would instruct their branches to supply currency to competitor banks in case of need to the utmost extent, provided such facilities were only sought in case of real necessity.

So far as could be judged, the bankers, aided by informal promptings and by the return from time to time of packets of new or insufficiently used notes, loyally carried out their undertaking, with the result that the life of low denomination notes was considerably extended in comparison with pre-war standards. This result was achieved in the face of persistent demands on the banks by Government Departments, the Forces and contractors for new notes to simplify, in the interests of the war effort by economy in man-power, the payment of wages and Service pay.

Average Currency of £1 and 10s. Notes

	<u>1938</u>	<u>1939</u>	<u>1940</u>	<u>1941</u>	<u>1942</u>	
			(months)			
10s.	4	5	8	8½	9	
£1	5	7	12	15	17	
	<u>1943</u>	<u>1944</u>	<u>1945</u>	<u>1946</u>	<u>1947</u>	<u>1948</u>
10s.	9½	9½	10	9	8	6¾
£1	19	20	22½	20½	19¾	12½

New Design for the £1 and 10s. Notes

For more than five years before the war the Bank had been working on a new design for these notes, and thought of making a fresh issue either in 1944, the 250th Anniversary year, or in 1948,

twenty years after the Currency and Bank Note Act of 1928. But the approach of the war introduced new considerations. Suppose the enemy sought to create a lack of confidence in the currency as a whole by dropping large quantities of forged notes from the air: would it be advisable to have a new issue in reserve? If so, to proceed with the proposed design (Houblon Note) would not do, since it could not be satisfactorily printed by lithograph, as would be necessary in wartime. But in any case would a new note be sufficient protection; for it, too, might soon be reproduced by the enemy?

On the other hand it was urged that it would not be difficult to give the public guidance in the detection of such forgeries, which would only form a very small proportion of the total issue.

In June 1939 the Bank proposed two measures, to which the Treasury gave consent. First, to create a reserve of notes of, say, £400 million, and of the existing design and colour but retaining the metallic thread*. And secondly, in the event of war, to print notes lithographically and of the same design but with different colours and with the metallic thread. Printing by lithography would save both labour and money and expedite production.

Before the first of these proposals could be carried through, however, (though the work was well under way) the war broke out and the Bank at once followed their emergency plans, which involved the closing down of the plate printing of £1 and 10s. notes at St. Luke's, and the production of a new type by lithograph process both at St. Luke's and Overton.** These notes were of the same size and design as the previous type, but (except for the numbers) were in different colours and were printed on threaded paper. They were put into circulation at the end of March and beginning of April 1940, but no attempt was made to expedite the return from circulation of the outstanding notes, which were re-issued for some time until the supply of the new notes was sufficient to take their place.

The use

*Introduced by the Bank some years previously.

** See also "St. Luke's".

The use of the same colours as before - green and brick red for £1 and 10s. notes respectively - would have been both confusing and dangerous because the lithographed note would have been a poor copy of the superior plate printed note. The lithographed notes were found to be satisfactory throughout the war period. There were, however, other reasons for introducing yet another form of note. Some of the reasons applied to the whole bank note issue, since it was desirable to segregate the internal issue from notes held on the Continent and elsewhere abroad, but as a new issue of low sum notes would probably require a series of years for its introduction, this consideration was not of very practical importance.

A further consideration, relevant to low sum notes only, arose from the fact that the Currency & Bank Notes Act of 1928 appeared to envisage a period of 20 years for the currency of any particular issue, since the profit on notes which had been destroyed or lost could not become available to the Treasury until 20 years after the date of their last issue. Difficulties of labour and material, and the large growth in the circulation during the war, made it unlikely that the Houblon note could be prepared and issued much before 1948, the year in which the Treasury would become entitled to the profit on the transferred Currency notes.

There was also the fact that since the abandonment of the Gold Standard the wording of all notes seemed to require a change. They bore the promise of the Chief Cashier to pay them; but as the Bank could only pay one note by the issue of another of the same amount, or others of smaller denominations, or by crediting its value to an account, the promise had long seemed to be inappropriate. The Act of 1844, however, refers to Promissory Notes of the Bank of England, so that legislation appeared to be required if an alternative wording such as "This note is legal tender for £ ", or a bald statement of the amount of the note, were adopted. This point was raised at a late stage and after the new design had been prepared, and it was no doubt largely for this reason that the case for a change was not more fully investigated.

The new design - the Houblon note, so called from the fact that a portrait of the first Governor was to be a main feature - had been perfected before the war. Further consideration began to be given to it in the Summer of 1944. The final specimens of the finished note were forwarded to the Treasury in December and received the Chancellor's approval in February 1945.

Notes of the Higher Denominations

The proposal that such notes should be withdrawn from circulation appears to have been first made by the Bank's Post-War Committee, in their Interim Report of July 1942 and (less definitely) in Mr. Cobbold's memorandum on "Sterling after the War" (sent to the Treasury on 7th April 1943*). The suggestion was made in view of the probable abolition after the war of the Postal Censorship. It was also believed that such notes were used in the Black Market, for hoarding and to avoid taxation; forgeries were prevalent on the Continent; and the increased use of cheques made notes for large amounts less necessary. But these were secondary considerations.

Towards the end of April 1943** the Chancellor announced that the Bank of England would issue no further notes of denominations of £10 and upwards and would withdraw those already issued as opportunity offered. On 21st April 1943¹ there were some £65.7 million of such notes in circulation, but three months later, largely because of the return of those held in the tills of the Clearing Banks, the figure had dropped to £43.6 million. The calling in of these notes did not come for some time since the Bank hesitated to suggest an amendment of the law by means of a Defence Regulation (and such Regulations were of course of a temporary nature only).*** However, in August 1944 the matter was taken up. At this time it was thought that about half of the remaining notes was held abroad; as the import of notes was prohibited by the Defence (Finance) Regulations, a withdrawal could only affect the other half.

On 7th

*See Part I. "Exchange Control after the War".

**The Commercial Banks had previously been consulted. O.C. 22.4.1943

***See Deputy Governor's letter to Treasury 13.10.43.

¹After this date the Bank ceased to issue notes over £5.

On 7th September Mr. Cobbold wrote to the Treasury on several aspects of the note issue, and urged that notes of £10 and over should be demonetised at the earliest possible moment. As from a given date the notes would cease to be legal tender in the U.K.; they would, however, continue to be exchanged at the Bank of England into notes of smaller denominations or paid to the credit of a resident account. From the Exchange point of view "it would be an advantage if the £5 note could be similarly demonetised. But it is felt that in view of the large numbers of this denomination in the hands of the public and its wide use for commercial transactions the balance of advantage lies in retaining the £5 note: moreover, if it were not retained early demonetisation of high sum notes would not be physically possible". On the previous day the Committee of Treasury had confirmed these recommendations. The objections to issuing a Defence (Finance) Regulation seem now to have carried less weight with the Bank.

On 4th November the Treasury approved, and advised that Parliamentary Counsel were of opinion that a Regulation would be intra vires. At this stage it appeared likely that an amendment to Section 6 of the Bank Act of 1833 would have to be included and that sub-section 1(3)(b) of the Currency & Bank Notes Act of 1928 might have to be repealed; and there were objections from Parliamentary Counsel to the use of the words "calling in". Meanwhile, the Bank wished to widen their general powers under the last-named Act to enable them to call in all bank notes of whatever denomination on giving proper notice. They had it in mind to call in £5 notes at a later date, though mainly for different reasons.

Eventually a Regulation satisfying all parties was drawn up and published by Order in Council on 24th January 1945:

"His Majesty, in pursuance of the Emergency Powers (Defence) Acts 1939 and 1940, and of those Acts as extended to the Isle of Man* and of all other powers enabling Him in that behalf, is pleased, by and with the advice of His Privy Council, to order,
and it

*Neither the Treasury nor the Bank were able to find an Act or Acts establishing Bank of England notes as legal tender in the Isle of Man.

and it is hereby ordered, that after Regulation seven AA of the Defence (Finance) Regulations 1939, there shall be inserted the following Regulation:-

"Power to call in notes of five pounds and upwards." 7AB. The Bank of England shall have power, on giving not less than one month's notice in the London, Edinburgh and Belfast Gazettes, to call in any of the notes of the Bank of any denomination of not less than five pounds on payment of the face value thereof, and on the expiration of the notice so given with respect to any such notes they shall cease to be legal tender."

At the date of this Order notes of £10 and upwards outstanding amounted to £35,399,000.

On 23rd March 1945, at which time there were approximately £31 $\frac{3}{4}$ million outstanding, the Bank of England issued a notice in the three Gazettes calling in these notes on 30th April. When the notice became effective there were only some £25.85 million in circulation, most of which were believed to be abroad.

Empire Central Banks, the National Bank of Egypt, the Federal Reserve Bank of New York and the State Bank of the U.S.S.R. were informed, and varying arrangements were made (usually without official publicity) to facilitate the repatriation of notes from the Sterling Area, Russia and Canada: evidence of past evasion of the Regulations or possible enemy taint were for the most part to be overlooked.

Commercial Banks had been asked in February 1942 to give information of operations which seemed to be a misuse of banking facilities, such as tax evasion and Black Market dealings. This information was collected for the benefit of Government Departments concerned such as the Inland Revenue, Ministry of Food and Board of Trade, and a large number of successful prosecutions followed.

After the high denomination notes ceased to be legal tender banks of course did not re-issue them, and some of them asked how long a period must elapse before they could be sure that notes paid

in to

S.R. & O. No. 73, 1945. An explanatory note was added, probably because persistent attacks on "Government by Regulation" had made H.M.G. keep new Regulations down to a minimum and caused them to be as persuasive and forthcoming as possible about any they introduced.

in to the Bank had been accepted. The Bank felt it impracticable to fix a period after which notes could be considered genuine, but offered to examine specially any notes on which a quick decision was needed.

£5 Notes

The withdrawal of all notes of £10 and upwards left nothing but the £5, £1 and 10s. denominations. The proportion of small notes, £1 and 10s., in the U.K. to total circulation was already before the withdrawal far greater than in other countries. In the U.S.A., for example, notes up to and including \$5 were only 17% of the circulation, and in Canada 29%: in New Zealand and Australia the proportion of small notes was 34% and 42%, respectively. The £1 and 10s. notes of the Bank of England, however, represented no less than 88% of the circulation.

Similarly, the £5 note was much less popular in this country than equivalent denominations abroad. It was only 8% of the Bank of England's circulation as compared with 16% in Canada, 29% in U.S.A., 35% in Australia and 50% in New Zealand.

The increase in the Bank of England's active circulation in 1943 and 1944 was almost all in £1 notes.

It was clear that to call in notes of £5 and leave no note of a value greater than the unit would introduce a state of affairs unique among important note-issuing institutions, to say nothing of the Scottish and Irish banks. As a result of the discontinuance of the £10 and higher denominations after April 1943 the number of £5 notes issued naturally increased in partial replacement. Later, however, in the Spring of 1945 there appeared to be a gradual decline in the popularity of the £5 note, notwithstanding the continued rise in the total circulation. The Bank attributed this to the possibly temporary influence of rumours about forgeries, and it seemed that some of the banks were inclined to pay in £5 notes rather than re-issue them.

And although there was no longer any question of abolishing the £5 note, it had indeed become important to change its design. Hand-made paper and letterpress printing had been adequate

protection against forgery for many decades. But Continental forgeries, believed to be of German State origin, were now so improved as to make their detection very difficult, and during the Autumn of 1944 a new note was prepared. For security reasons it was thought advisable to introduce a metallic thread in these, as in the case of the small notes. This could not be inserted in the thin hand-made paper, and mould-made paper had to be accepted. A decision to print by lithograph instead of by letterpress considerably reduced the cost. The Printing Department would have liked to introduce further safeguards, in particular the printing of the main design in colour; but the Bank were too attached to the old note to accept this proposal or the inclusion of a portrait vignette and other features suggested. Some changes were made in the watermark, which previously had shown the year and the week of the year in which the ^{paper} note was made; with mould-made paper this was not practicable, and the year only, with an indication of the position of the particular note on a sheet of eight notes was substituted.

A specimen of the new note was sent to the Treasury at the end of March 1945 and was shown to the Chancellor. It was returned with the remark that the Chancellor had seen it "with a twinge of regret".

A table of denominations follows which will illustrate the above changes. From these figures it can be seen that in six years to the end of 1948 the increase (£54.1 million) in the circulation of £5 notes has been rather less than the decrease in that of denominations £200-£5,000 (£58.6 million).

BANK OF ENGLAND NOTES IN CIRCULATION: BY DENOMINATIONS

(\$ millions)

BANK OF ENGLAND NOTES IN CIRCULATION: BY DENOMINATIONS

(£ millions)

<u>End of Year</u>	<u>10/-d.</u>	<u>£1</u>	<u>£5</u>	<u>£10</u>	<u>£20</u>	<u>£50</u>	<u>£100</u>	<u>£200* - £5,000</u>	<u>£1,000,000</u>	<u>T O T A L</u>
1938	58.1	307.0	40.2	15.3	4.6	12.9	28.2	18.7	19.7	504.7
1939	64.9	360.5	40.8	14.7	4.0	11.4	22.6	14.2	21.7	554.6
1940	74.7	418.9	42.2	14.2	3.8	10.7	21.7	7.8	22.9	616.9
1941	83.3	526.8	47.1	15.0	3.8	11.8	24.0	7.6	32.3	751.7
1942	92.0	664.7	56.6	16.1	4.0	12.6	25.2	7.6	44.6	923.4
1943	99.1	818.9	77.3	8.8	2.7	7.5	15.9	5.1	53.4	1,088.7
1944	103.4	946.5	93.0	7.6	2.5	6.8	14.6	4.7	59.5	1,238.6
1945	107.7	1,104.2	82.7	3.4	1.6	3.6	8.2	3.0	65.6	1,379.9
1946	104.4	1,155.2	85.0	2.1	1.0	2.2	5.0	2.3	70.9	1,428.2
1947	98.3	1,073.2	101.3	1.7	.8	1.8	3.8	1.5	67.3	1,349.7
1948	96.2	1,014.9	110.7	1.3	.6	1.3	2.6	1.1	64.4	1,293.1

* i.e., £200, £300, £500, £1,000 and £5,000.

The last £200 note was issued on 20.11.1928 (dated 20.6.1918).
3.8.1949 and none had been paid since 8.4.1941.

There were 21 notes (£6,300) outstanding on

The last £300 note was issued on 26.11.1887 (dated 14.2.1885).
3.8.1949 and none had been paid since 1.4.1948.

There were 88 notes (£17,600) outstanding on

SLIGHTLY LARGER

Forged Notes£5 and upwards

At the outbreak of war five varieties of forged high denomination notes, the numbers of which justified classification, were being received, and up to May 1945 six new varieties had come to light.

The first of these fresh varieties was presented on 2nd April 1941. This type (designated "Z") had been lithographed from a plate, or stone, prepared with the aid of photography, and an extremely high degree of skill was evident, especially in the fine lines of the flourishes and scroll-work; but the general appearance compared with a genuine note was blacker, this being particularly noticeable in the Britannia. The numbering, including the cipher, had been printed separately by letterpress, and the water mark was the best imitation seen for a long time. The poorest feature was the paper, which was limp. This type was of £10 and £100 and was traced to Palestine, Switzerland, Belgium and France. There were relatively few of these notes, and their numbers showed no tendency to increase.

On 21st September 1942 nine forged £10 notes of a most dangerous likeness to genuine notes were received from Tangier. This variety (the "BB" type) had been produced on similar lines to the "Z" type and was thought to be the work of the same forger.

It was apparent that this type had been produced by craftsmen who had at their disposal machinery comparable to that at the Bank's Printing Works. The only means of detection at this early stage was in the "feel" of the paper. A quartz lamp now purchased was of great assistance, as a note when placed in a beam of ultra-violet rays, in darkness or subdued daylight, became self-luminous, the colours produced depending on the chemical content of the paper; and as an inferior paper without similar chemicals to those used in the manufacture of Bank note paper was used, this test was successful. After prolonged microscopic examination of many specimens only one small consistent irregularity in the printing was found in this type (in the reproduction of the hair falling to the

SLIGHTLY LARGER

right side of the face of Britannia).

In August 1942 the Banque Nationale Suisse were asked for a report - covering the war period - on the traffic of forged Bank of England notes in Switzerland: news of the confiscation by Swiss banks of forgeries to a nominal value of about £40,000 had been received from various sources. A comprehensive report was not obtained, but soon after the receipt of the first specimens of the "BB" type the Banque Nationale Suisse became suspicious of the genuineness of a parcel of notes comprising 6,000 of £10 and 4,000 of £5 which had come from a neighbouring country. A sample of each denomination was forwarded for examination and both were found to be forgeries of this type. This was the first, but by no means the last, news that this particular type of forged note was in circulation in Switzerland as many enquiries seeking guidance as to how detection could be undertaken subsequently reached the Bank. Little assistance could be given as it was not the Bank's practice to publicise defects in forgeries; hence specimens of suspected notes were often forwarded for examination.

Denominations of £5, £10, £20 and £50 were produced in this type, and up to 8th May 1945 the following had been received:-

6,008	@	£5	(68 different ciphers)	
2,736	@	£10	(56 do.)
1,062	@	£20	(13 do.)
<u>183</u>	@	£50	(15 do.)
9,989				

Prior to the invasion of France by the Allies the bulk of the production must have remained abroad but a large number reached this country in spite of the regulations. Smugglers of notes were often traced by having, no doubt unwittingly, brought in forgeries. Several diplomats and consular officials accredited to this country were among ^{those who brought in forged notes.} ~~smugglers~~.

It will also be seen from the above figures that 152 different ciphers had been used; there was no evidence to disprove the assumption that 100,000 forgeries had been printed to each cipher, as was the Bank's practice, making a total production of over 15 million.

It seemed highly probable from the excellence of the reproduction, the large scale production, and from information received from confidential sources that these forgeries were German; as was subsequently proved when the American Forces captured plant and large quantities of unissued forgeries.

32,690 high denomination forgeries of all types were received through normal channels from 1939 to 31st December 1945 -

<u>Year</u>	<u>£5</u>	<u>£10</u>	<u>£20</u>	<u>£50</u>	<u>£100</u>
1939	14	26	18	-	1
1940	48	71	38	-	1
1941	37	33	7	1	-
1942	32	54	-	1	13
1943	400	234	1	2	8
1944	458	497	189	18	16
1945	<u>15,544</u>	<u>8,041</u>	<u>4,831</u>	<u>1,769</u>	<u>187</u>
	16,533	9,056	5,084	1,791	226
	=====	=====	=====	=====	=====

The majority of the forgeries received in 1945 were of the (German) BB type. In addition, despite efforts made by the Germans immediately before their surrender in 1945 to destroy all trace of their forgery activities, the Allied occupying Forces seized some $1\frac{3}{4}$ million forgeries of this type, with face value of more than £26 million.

10/- and £1

All serious forgeries of 10/- and £1 notes were produced in this country; therefore, with national registration and the direction and control of labour, a decline in forgeries was expected.

This decline became apparent in 1941 and continued to 1943, and during this period only 173 forged 10/- and £1 notes were received as compared with 2,523 in the previous three years. But in 1944 and 1945 the trend in forged £1 notes was sharply upward.

The Axis distributed forged notes during the Libyan campaign; crude photographic reproductions of £1 notes and American notes with Arabic characters on the back. These were not dangerous from the forgery angle and were used for propaganda purposes.

Certain
~~The following~~

Certain American dollar notes were reproduced in similar fashion and later a slightly larger reproduction of a £1 note made its appearance with different Arabic characters. 234

The following is a translation of the Arabic on the back of the £1 Notes:-

"The Signs of Dissolution

If you would consider this bank note it will certainly remind you of that time when you were paid ten times its weight in shining, tempting gold.

Because this bank note was guaranteed by the British Empire with all it possessed of power, wealth and greatness.

But this greatness has gone and its wealth just as this bank note become worthless.

What is its value to-day? You are doubtless well aware.

Every day that passed of this war which England induced; every battle that England lost, was the cause of depreciation of the British currency.

The day is approaching when even the street beggar will refuse to accept the sterling even if you would give to him in bundles.

So God approved the dissolution of Britain and so it will be."

and the following ~~translation~~ of the Arabic on the back of Sterling and Dollar Notes:-

"Moslem brother!

You see here the picture of the bank note by means of which the English and the Americans have tried, and are still trying, to enslave the world. Remember, O Moslem brother, that the blood of thy innocent brethren has flowed like rivers in order that the wealth of those brigands who lord it over Allah's countries and His worshippers might be increased. Look at the events of the present time and at the misfortunes which have befallen all Moslem countries as a result of the ill-starred Anglo-American occupation.

Awake and arise and hasten to the rescue of the remnant by joining your efforts to the efforts of the other nations which have risen against tyrannical Anglo-American imperialism. The time for action has come, for if you put it off until tomorrow you will find that the opportunity has passed. Consider, O Moslem brother, that the defeat of the Anglo-Americans, the hated enemies of Islam, will guarantee your life and the lives of your children, and will remove the danger of occupation by the Jew, who has always sucked your blood and who covets the Moslem lands."

Only

33cm x 40cm.

Only one new variety of a forged £1 note made its appearance - a reproduction of the emergency type note (containing the metal thread). This was the work of the same forger who reproduced reasonably good specimens of the pre-war green coloured £1 note. No effort was made to give the impression that the note contained a metal thread. From 9th August 1940 to December 1945 the Bank received through normal channels 2,351 specimens of the type of £1 note classified as "K¹". Suspicions that most of these came from Lancashire and Cheshire were confirmed by the arrest of the forger in early June 1945.*

The figures of 10/- and £1 forgeries received from 1939 to 1945 are given below:-

<u>Year</u>	<u>10/-</u>	<u>£1</u>
1939	833	161
1940	616	137
1941	33	70
1942	14	24
1943	3	29
1944	3	308
1945	<u>4</u>	<u>2,002</u>
	<u>1,506</u>	<u>3,731</u>

Apart from the above-mentioned types of all denominations, the usual number of tracings, photostat copies and drawings was received (about two dozen annually), the perpetrators in nearly all cases being quickly run to earth by the Police.

Note Storage with Commercial Banks

On 25th May 1938, the Bank of England suggested to the Treasury, who welcomed the idea in principle, that it might be advisable to hire strong rooms at Clearing Bank branches for a further distribution of reserves.

In June the Bank were thinking that the most desirable centres (apart from the eight Bank of England branches) would be

Nottingham,

*On 4th June 1945, Herbert Winstanley of Rusholme, Manchester, was charged with having in his possession a number of forged £1 notes of the pre-emergency issue - green notes "K" type, and of the current issue "K¹" type. Forged £10 and £5 notes were also found, together with a complete forger's outfit.

Nottingham or Leicester, Norwich and Cardiff (or some central town in Wales) and perhaps Lincoln.

The matter was taken up with the banks in July, when reference to outer suburban branches was also made. Though anxious to assist the banks stated that they had no separate strong rooms or safes available, but would be glad to accommodate safes provided by the Bank of England. They did not give any lead as to where the most suitable centres would be.

At the end of August the Bank had accepted an offer of the Committee of Clearing Bankers to store currency, and during September £11,780,000 in notes of £1 and 10s. were despatched to the following places:

Barclays Bank	Norwich	£1,260,000
do.	Richmond	1,000,000
Lloyds Bank	Swansea	1,260,000
do.	Watford	1,000,000
Midland Bank	Staines	1,000,000
do.	Dartford	1,000,000
do.	Redhill	1,000,000
National Provincial Bank	Nottingham	1,260,000
do.	Wimbledon	1,000,000
Westminster Bank	Enfield	1,000,000
do.	Epping	1,000,000
		<u>£11,780,000</u>

£9,400,000 was in £1 notes. The notes were packed in sealed wooden cases, and the responsibility of the banks was the same as for sealed boxes, etc., held for custody on behalf of customers.

In May 1940, in view of the seriousness of the military situation it was considered inadvisable to retain at Head Office a large special reserve of live Notes* (about £300 million in £1 and 10s. Notes alone) of the old design, and instructions were given to reduce and subsequently to liquidate this store both by cancellation and by destruction (at Battersea Power Station). In all some £120 million of uncanceled 10s. and £1 Notes were burnt at Battersea and cancellation of the remaining Notes was completed by the middle of August.

Simultaneously

*Paid but uncanceled notes, suitable for re-issue.

33cm x 40cm.

Simultaneously with this the distribution of Store Notes, which had been carried out on a small scale in co-operation with the Clearing Banks during 1938, was renewed on a much larger scale and over a wider area, with the result that by the middle of August 1940 over £162 million of Small Notes and about £77 million of High Denomination Notes had been deposited with branches of the Clearing Banks throughout the length and breadth of the land, except in the Eastern and South Eastern Counties and the Southern seaboard of England. In addition, £1 million Small Notes were lodged with Banks in Northern Ireland.

In June 1943, when notes of £10 and upwards were withdrawn from circulation the deposits of these were returned to London and replaced by £5 Notes.

Owing to temporary shortages of 10s. and £1 Notes at Head Office, deposits amounting to approximately £21 million were withdrawn in December 1942 and £26 million in the Autumn of 1943, and sent direct to Branches of the Bank of England to be taken into "Store". The withdrawal of the remaining Notes commenced at the end of July 1944 and was completed by December.

5s. and 2s. 6d. Notes

A brief reference to the preparation of these notes is made under the heading of "Silver", but some further remarks may be appropriate here.

8 million notes of each denomination had been delivered by the printers in January 1941, and after the stock had been dispersed about the country* a further 8 million of each were printed, to be held in London. The total stock, therefore, represented only £6 million, and had it been necessary to issue such notes more would have had to have been printed at once. This would have been very difficult: because of the labour shortage, the printers were generally in arrears with their existing programme. Moreover, though the shortage of dollars made it difficult to buy silver, there was also the need to economise in paper.

While there was some division of opinion within the Bank, on the whole it may be said that they viewed an issue of small notes with

*Returned to London in Spring of 1945.

with disfavour, and did not think that they would be welcomed by the public, as the notes would be easily soiled and loss would be suffered both by wear and tear and destruction. The difficulties of adequate examination, for the Commercial Banks, Post Offices and the Bank of England, would give increased scope to the forger, and claims in respect of damaged notes would be an additional burden. The Treasury does not seem to have urged their issue on the Bank, and in the event the notes were not used.

Statistics: Changes due to the War

For many years before the war the annual pattern of the Note Issue had been more or less fixed. Christmas or summer holiday demands might be rather greater one year than another, but they recurred with regularity and their size had much the same relation to the size of the total circulation and their duration was of similar length from year to year.

From a low point towards the end of January, after the return of Christmas and year-end currency, the circulation rose pretty steadily until the August Bank Holiday, with a largish temporary out-flow at Easter and a much smaller one at Whitsun, and thereafter declined to a low point (the second lowest of the year) towards the end of November.

The total outstanding was at its lowest about 15-20 days after Christmas, though only a few million pounds lower than at the low point before the Christmas out-flow began. For all practical purposes, ignoring the Christmas out-flow, the circulation was at its lowest in the winter, and its expansion was due predominantly to recreational demands - natural enough features in a country where seasonal agricultural demands for currency are comparatively small.

During the war the position of the lowest point of the year shifted from late January to immediately before the Christmas out-flow; in other words, the pre-Christmas low point became for several years the lowest point. The pre-war low point had not re-established itself before January 1947.

The constant increase in the circulation during the war and up to late in 1947 (about £900 million or $2\frac{3}{4}$ times) was on a scale which makes comparison with pre-war behaviour far from easy; and the fact that customary holidays were partly suspended makes it even more difficult in the earlier years; though in the later stages of the war people took holidays with somewhat greater regularity. The set of graphs at the end of the chapter will show that the pre-war yearly cycle (or something like it) had hardly returned before 1948. Seasonal demands, however, recurred with some intensity, particularly at Christmas. After some years, of course, there would be larger savings available to sustain the customary amount of Christmas spending, and savings certainly suffered to some extent at that time of year. The fact is to be seen rather "in reverse" than in actual withdrawals - a slowing down of the rate of saving - as the following figures will show. Figures for later rather than earlier war years have been chosen advisedly.

<u>Period</u>	<u>Mean of Years 1942/44</u>		£ mns.
	<u>Average Quarterly Net Addition to "Small" Savings*</u>	<u>Average Quarterly increase in B/E Notes in Circulation</u>	
January/September	73.2	19.1	
October/December	58.1	76.2	

Thus, in the three years 1942/44, during which some £1,670 million (including accrued interest) were saved through Post Office and Trustee Savings Banks and National Savings Certificates, the circulation expanded, on an average, by £76 million in the last quarter of the year as compared with an average expansion of only a quarter as much in the first three quarters; the increase in Savings Banks Deposits and Savings Certificates averaged £73 million in the first three quarters of the year but only £58 million in the last quarter.

As

*P.O.S.B.; T.S.B.; and N.S.Certificates (London Gazette).

As mentioned above (Notes of the Higher Denominations) many millions of notes were known to be held by Black Marketeers and Income Tax dodgers. The former mostly held high sums, the latter low sums. After the withdrawal of denominations above £5 in November 1945, the total of denominations £10 - £5,000* outstanding fell by about £9 million (from £21½ million to £12½ million) during the fourteen months ended December 1946, and by a further £5 million in the next two years.

Payment of Income Tax ^{was} ~~has~~ certainly ~~been~~ avoided on a large scale by the hoarding (and subsequent judicious distribution no doubt) of low sum notes; but any estimate of their total has been quite impossible because of the enormous increase in the low sum circulation from other causes. Notes of denominations of £1 and 10^s/- accounted for £834 million of an increase of £874 million in the active circulation between December 1939 and December 1946, when it reached a maximum so far recorded of £1,429 million.

Seasonal variations did not maintain pre-war proportions of the total circulation which, like bank deposits, underwent a threefold expansion between 1938 and 1946. Apart from the Christmas withdrawals, which continued to increase more or less in proportion to the circulation, seasonal withdrawals during the war tended to be less regular, and not proportionately as large as the increase in the circulation.

By 1947, judged either by the active circulation or by estimated "Notes with Public" seasonal withdrawals, though not yet of customary pre-war proportions, were at least on the way to being

so.

*The largest denomination (£100,000) is here ignored; all these notes are held as cover for Scottish and N.Irish note issues and have no bearing on the present question.

so. Broad figures, for 1933/7 and for 1947, at the three principal periods affected were as follows -

	<u>Active Circulation</u>		<u>Notes with Public</u>	
	<u>Pre-War</u>	<u>1947</u>	<u>Pre-War</u>	<u>1947</u>
Easter	+ 8	+ 11	+ 8	+ 15
August	+ 10	+ 14	+ 9	+ 13
Christmas	+ 28	+ 66	+ 24	+ 64

These figures suggest that in 1947 Easter withdrawals were one and a half ^{times} to twice as heavy as before the war and withdrawals at the August holiday about one and a half times as large or rather less; the Christmas circulation expanded by at least two and a half times as much - all as features of a circulation expanded three times. Throughout the greater part of the war Christmas shopping, so far as goods were available (and doubtless often in the hope that suitable purchases might be made) caused withdrawals of £40 million or more. At Christmas the banks exercised varying degrees of caution and all the notes which they themselves ^{with-} drew were not always needed but remained in their tills. Christmas withdrawals are illustrated by a graph to the Annex which briefly explains the method of calculating seasonal movements.

Currency Economy by the Banks

Before the war the banks customarily held about one fifth of the circulation of both notes and coin. A slight precautionary increase in this proportion in 1939 and 1940 was followed by a further moderate increase in 1941 and 1942 in notes held, not appreciably ^{affecting} their proportion ^{of} the total circulation. Throughout the remaining war years the banks' tills were maintained at around £150 million, which amount was, of course, a steadily ^{falling} ~~varying~~ proportion of the growing circulation*.

By 1946

*	(1) <u>Notes in Circulation</u>	(2): <u>Notes in Clearing Banks</u>	(3) <u>Proportion of (2) to (1)</u>
1943	965	131.1	13.6
1944	1,134	136.7	13.1
1945	1,283	133.3	10.3
1946	1,357	135.0	10.0

35cm x 40cm.

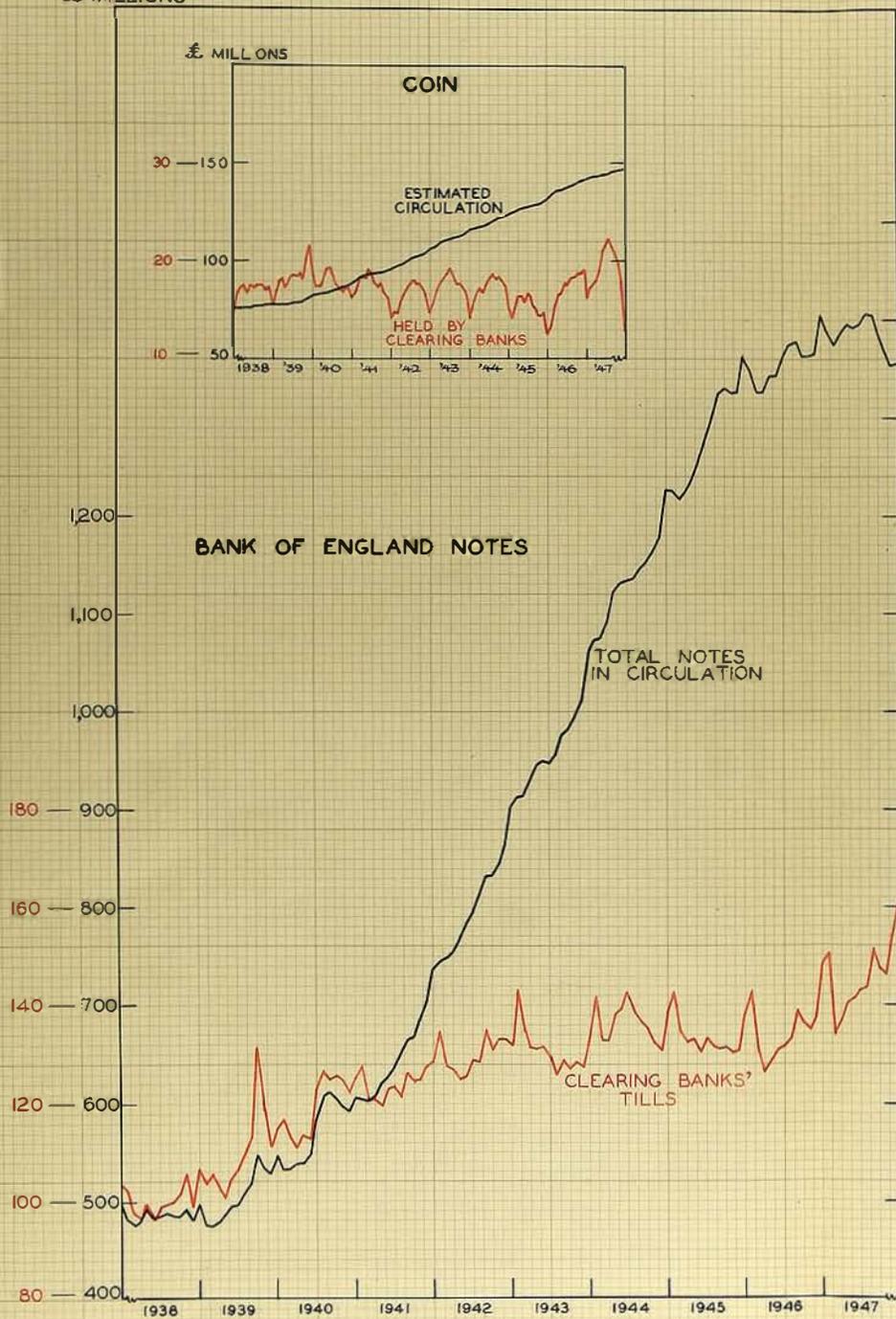
By 1946 the pre-war proportion had been halved.

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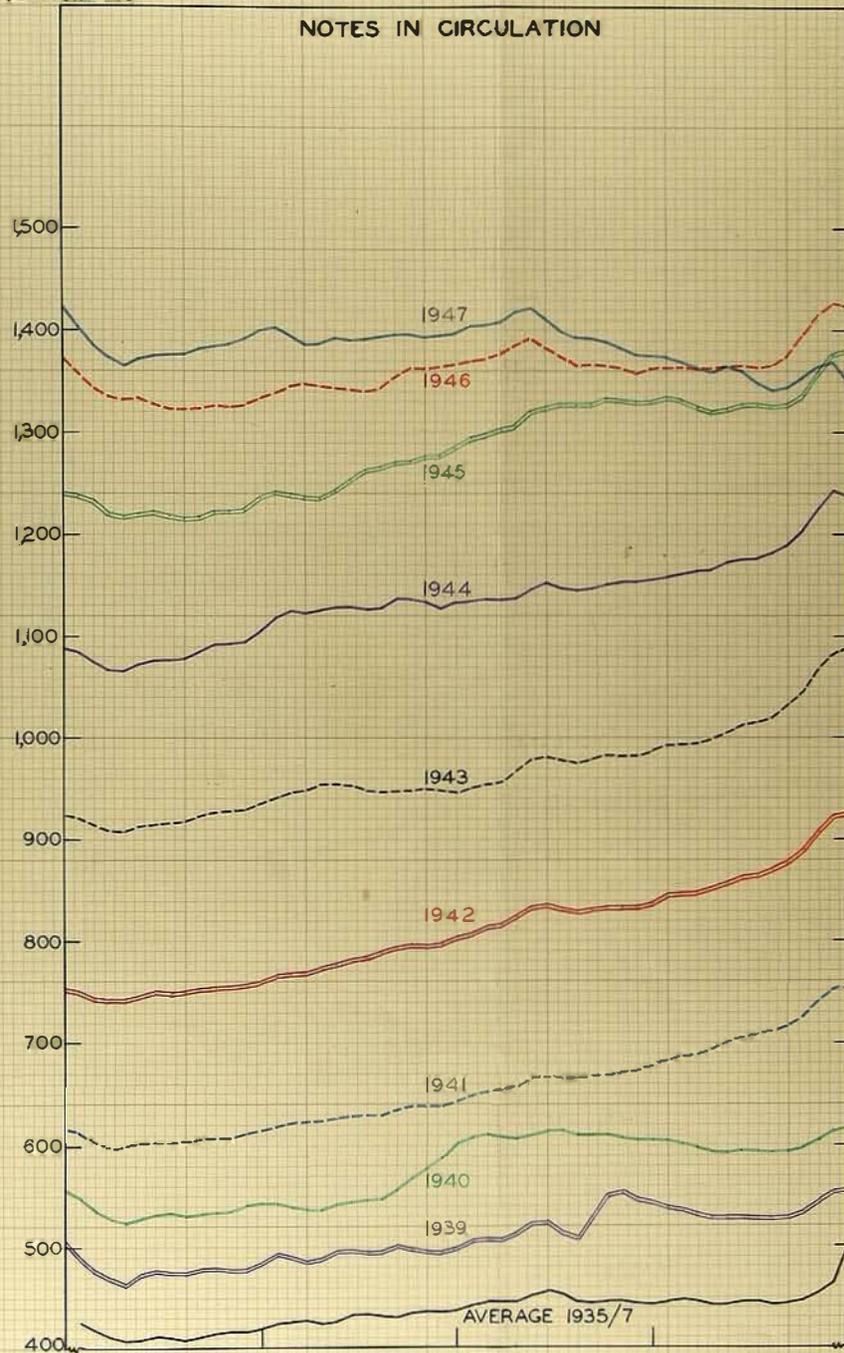
Coin

The amount of coin, also before the war about one-fifth of the total issued, fell from about £18 million in 1939 to under £16 million in 1945. Thereafter it rose again, with wide fluctuations, to about £23 million in 1948 and was then still rising, though it was still a long way from regaining its pre-war proportion of the total estimated circulation.

£ MILLIONS



£ MILLIONS



Method of Calculating Seasonal Withdrawals

The calculation of purely seasonal demands requires the development of a special technique:-

- (1) Removal of long-term trend when appreciable: the war-time upward trend was for some years of the order of £160-170 million a year;
- (2) The flattening of the yearly cycle so that ~~the~~ (e.g.) the gradual rise throughout Spring and Summer is removed: this means, in effect, reducing the circulation to a straight line, which ~~is~~ the process described in (1) above in turn reduces ~~it~~ to a horizontal line;
- (3) The special treatment at Easter, where the incidence of its date in conflict with the turn of the month (itself being an expansion of £5 million or more) varies so much. It is perhaps the most difficult seasonal movement to estimate.

The regular demand at Whitsun is comparatively small (£2 or £3 million at most, where it can be identified) and is not usually measured. Figures for some years were definitely misleading; the Coronation (King George VI) activities and those associated with Victory Day affected the circulation at Whitsuntide much more markedly than the regular holiday demand.

Christmas is always measureable since the holiday dates are all but invariable; the expansion begins regularly almost to a day a month before Christmas Day*; and August scarcely less so because the range within which the Bank Holiday can fall is the 1st to 7th of the month.

The main difficulty is the variable behaviour of the Clearing Banks, whose tills are by no means always replenished at the expected rate, and whose returns of the amount of notes held are two weeks in arrear (and occasionally more) and made only for Wednesdays.

Notwithstanding

*For the purpose of the graph attached, daily *figures* have been dated from 27 working days before Christmas.

Notwithstanding these difficulties, a series of figures has been derived from the available material covering a sufficient number of years to give a fair idea of the seasonal aspect of the circulation and departures from it. Graphs are attached showing -

- (1) the course of the active circulation during, before and after the war, and
- (2) the results of applying the above described process to the Christmas circulation in 1940, 1943 and 1947, compared with the average Christmas experience in 1933-37.