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ENGLISH THEORIES OF CENTRAL BANKING CONTROL 1819–1858

With Some Account of Contemporary Procedure

BY

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To
MY WIFE
VIRGINIA POYTHRESS GALT WOOD

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**ENGLISH THEORIES OF CENTRAL
BANKING CONTROL
1819–1858**

ABBREVIATIONS FREQUENTLY USED

- Ev.** Evidence given before a parliamentary committee or commission
and included in the Report listed in the Bibliography, Section 1,
under the year cited
- P.P.** Parliamentary Papers. See Bibliography, Sections 1 and 2
- q., qs.** Question, questions
- Report . . .** Report of a parliamentary committee or commission, listed in the
Bibliography, Section 1, under the year cited

GENERAL INTRODUCTION

FOR many years preceding the World War the international gold standard was considered so nearly automatic that there was comparatively little interest in credit control. Central banks were supposed to have only a temporary modifying influence upon the monetary situation. But experiences with currency management during the past twenty-five years have led to an intensive analysis of central banking technique. At the same time a new interest has arisen in the historical development of procedure and in the theories which have accompanied it. The period 1819-1858 in England is of special interest, for it was then that the ideas which prevailed in the later nineteenth century were largely formed. Recent writers have already given the period careful study. The work of Feavearyear, Gregory, Hawtrey, King, Richards, Sayers, Silberling, Thomas, and Viner should especially be mentioned. A systematic review of recent writings seems unnecessary, but I shall comment upon them at particular points where there appear to be outstanding differences of opinion.

In order to criticize the contemporary theories it has seemed necessary to devote considerable attention to the actual procedure of control exercised by the Bank of England. It was not found possible to get a sufficient understanding of the procedure followed merely from the discussions of the Bank officials and other contemporary observers; it was necessary also to observe the curves of the weekly data (and other data where weekly figures were not available). It is the failure to take as a starting point a careful study of the statistical record which is the chief basis of criticism of modern discussions of the Bank's practices and policies during the period 1819-1858.

In this Introduction I shall give a summary statement of the Bank's procedure and a brief discussion of the problems involved. The Conclusion will give a general statement of contemporary theories and a criticism of them.

In discussing the procedure of control we are concerned, first, with the nature of the connec-

tion between the central bank and the other banks. Secondly, we are concerned with the character of the contacts which the central bank maintained with the money market and the various other technical devices for determining the conditions under which reserve money could be created.

Connection between the Bank of England and the London Banks

The Bank's influence over the London banks depended upon the fact that their reserves consisted of Bank notes and Bank balances. The practice of maintaining reserve balances did not begin until 1825, and as late as 1842 balances were under a million pounds a good portion of most years. In the 'fifties they rarely exceeded four million pounds until the panic of 1857. In contrast, note reserves were probably of the order of seven to ten millions during the period 1819-1858. Though the reserve money of the London banks was created by the Bank of England, it is important to see that the latter had no means of controlling their reserves at some predetermined level. There were several different channels through which the London banks could gain or lose reserves aside from changes in the Bank's earning assets, and the amount of the losses and gains were not under the control of the Bank. These channels were: changes in nonreserve deposits both public and private, the demands of the public and of the country banks for coin and Bank notes, and international bullion movements. Several accounts taken individually were of the same order of magnitude as the reserves of the London banks. Definite control of the amount of their reserve cash was therefore quite impossible aside from any question of the Bank's controlling its securities.

The Bank's Connection with the Country Banks

Control over the country banks was indirect. The reserves of the latter consisted for the most part of balances with the London banks and to only a small extent of Bank notes. The Bank's

control therefore operated through the financial center.

The country credit system was really subsidiary to that of London instead of being coördinate with it. An expansion (or contraction) of the London banks tended to improve (or impair) the liquidity of the country banks without causing any material loss (or gain) of reserve cash on the part of the London banks. However, there were some possibilities of their losing reserve in favor of the country. Any increased demand for Bank notes and coin for general circulation or for till money by the country banks would be passed on to the London banks.¹ Also, discounting at the Bank in London was to a certain extent alternative to discounting in the country. An easing of credit in London tended under some circumstances, therefore, to cause an absorption of the London banks' reserves in the repayment of country discounts. The extent to which this might occur was dependent upon the amount of discounts and upon the "stickiness" of the loan market in the country as well as in London — a matter that will be discussed more fully under discount procedure. The point to be emphasized, however, is that the expansion by the London banks did not tend to dissipate their reserve holdings among the rest of the banks in the country.

Modern critics have quite commonly taken the view that the country banks were not under effective control by the Bank, first, because of their unlimited privilege of issuing notes, and second, because of their reserve practices. I believe that this view is quite unfounded. With regard to the point that the note-issue privilege weakened control, the really important question is whether the variations in the country issues affected the reserve position of the London banks to an extent which the Bank found unwieldy. That is to say, it might be supposed that country banks would expand their issues at the expense of the Bank's issues, and that the Bank notes released from general circulation would be sent to London to build up the bal-

ances of the country banks and to increase the note reserves of the London banks. And it might be further supposed that the variations were of such magnitude that the Bank could not easily compensate them.

The answer to this line of argument is, in the first place, that there were no important fluctuations in the amount of Bank notes in use in the country after the panic of 1825. There was only a gradual increase. But of much greater significance is the fact that such sources of loss or gain to the reserves of the London banks were of a similar nature to changes in nonreserve deposits, Treasury advances, and the like. And the Bank was having constantly to deal with disturbances of this kind that were greater than those arising from variations in the amount of Bank notes in use in the country.

Let us consider the criticism that the country banks were not under effective control because their reserves consisted mostly of balances in London banks (instead of Bank notes) and because their reserve proportions fluctuated widely. The criticism presupposes that the real incentive for member banks to expand or contract is the state of their reserves in central bank funds in relation to requirements. This is a mistake. A member bank expands because its demand for liquidity as a whole has been more than satisfied. Liquidity for country banks can be *created* by the banks in the financial center — and will be if their own liquidity is sufficiently great. Thus if the central bank has an effective procedure for enforcing its policy in the financial center, there can be no question of the country banks' thwarting it. It is true that the variation in the liquidity preference of the country banks would render them to that extent less sensitive to credit conditions in London, but that is a characteristic of provincial banks under a system of regulated reserves. When we consider that London was the central market for commodities and securities and that it financed an appreciable margin of trade credit for the country, it seems likely that a failure on the part of the country banks to keep in step with the financial center would have exhausted their surplus liquid assets with great rapidity. Moreover, the country banks would take their cue with regard to the need for liquidity from the financial center. As a Liverpool

¹ Some banks had coin and Bank notes sent to them by their London correspondents. Others drew their supplies from the Bank Branches. But, since their balances at the Branches were so small, they had to replenish them by drawing on their London correspondents.

banker of the period expressed the matter: "When they contract, we contract."

I conclude, therefore, that neither the note-issue privilege of the country banks nor their manner of maintaining reserves prevented their being under the effective control of the Bank of England.

The Procedure for Determining the Conditions under which Reserve Money Could be Created; Open-Market Operations

Let us consider open-market operations, the Bank's contacts with the money market, and other technical devices for determining the conditions under which the banks could adjust their reserve position. Despite a common opinion to the contrary, open-market operations in the present-day meaning of the term were not a very important instrument of policy. Before 1819 the Bank seldom bought Exchequer bills except at the request of the Treasury. From 1822 to 1825 the Bank made a special agreement with the Treasury to take Exchequer bills in aid of the government's refunding operations. But the Bank did not take a predetermined amount of bills. It was really under engagement to make money rates sufficiently low for the new stock offering to be attractive to the public. The purchase of the Dead Weight (or annuity) was more like an open-market operation, since it involved the payment of definite amounts to the Treasury over a period of five years. Nevertheless there was no more flexibility in its amortized value in practice than there was in the permanent advance to the government: the Bank never sold any of it.

By about 1830 the Bank was evidently buying (or replacing) Exchequer bills at its own initiative. It was also in that year for the first time (at least in many years) that it bought government stock. I think we may consider that it was then that open-market operations in the modern sense of the word began. Such operations, however (as distinct from current advances to the Treasury), were on a very limited scale during the next three decades. For the most part the changes were gradual and, except for sales during crises, were not apparently made with particular reference to the credit situation.

According to the early twentieth-century

view, the object of selling securities was to force the market into dependence upon the Bank so as to make Bank rate effective. In the period we are dealing with this process was understood, but it was not for such a purpose that securities were generally sold. They were sold during increasing pressure, when the market was already dependent upon the Bank, as during the panics of 1825, 1836-37, 1847, and 1857. The reason commonly given by the Bank officials for sales during monetary pressure was that they desired to give increased accommodation to the discount market while at the same time preventing the growth of total securities. Actually, of course, such shiftings in earning assets were a tightening influence, particularly when associated with various restrictions as to the quality of commercial bills and the amounts for particular parties. I believe the real explanation is that the directors had a latent fear that an advance of the rate was not a sufficient corrective. Feeling the panic themselves, they sought desperate remedies to strengthen their position.

The Relation between Current Treasury Operations and Bankers' Reserve Cash; Temporary Advances by the Bank to the Market

Not only could the Treasury initiate changes in the reserve position of the market, but the market under some circumstances could adjust its position through the Treasury at its own initiative. Treasury operations have a further significance. Because of the magnitude of the seasonal accumulations of public funds, the Bank (after 1829) made temporary advances to the market during the part of each quarter when the accumulations were important at a rate usually lower than Bank discount rate and on broader terms of eligibility.

It has already been pointed out that the Treasury during the war and early post-war period very generally requested the Bank to buy bills in order to support the market. Such purchases were really in the same general category as direct advances to the Treasury. Since the Treasury had to renew a large amount of floating debt four times a year (later twice a year) in addition to fresh offerings for cash, the officials felt it necessary to have the assurance of the Bank's support in fixing the rate on the

new bills. Also, until 1838, the bills could be paid in for taxes at par and it was necessary to keep them at a premium in order to collect the revenue in cash. Actually the Bank was rarely called on to support the market after 1826, though the possibility always existed.

The change in procedure was not as fundamental as it might seem. A failure of the public to take all of the Supply bill offerings increased the amount for which the Treasury had to resort to the Bank for Deficiency and Ways and Means advances — the former for permanent charges against the Consolidated Fund and the latter for Supply services. (The Treasury might make up the difference from the Exchequer balance if it was sufficiently large, but this would release funds to the money market in the same way as an increase of Bank advances.) By raising the Exchequer bill rate the Treasury might avert such a situation, but only on the further condition that the market had direct contacts with the Bank through which it could adjust its position. That is to say, one entry to the Bank was used relatively little because another entry opened so readily.

On the other hand, the Treasury might deprive the market of funds by a greater than seasonal amount through an improvement in the revenue, through refunding operations, or through increasing its offerings of Exchequer bills to the public: but again provided that the market could make up the funds lost more readily through direct contacts with the Bank than by refusing Exchequer bills. Thus the extent to which the Bank made advances to the Treasury, as compared with advances and discounts to the market, depended partly upon the amount of Exchequer bills offered to the public; but it depended also upon the relation between the Exchequer bill rate and the rates charged the market by the Bank. The probable reason why the market did not take Bank funds through the Treasury (by forcing an increase of advances to the Treasury) to a greater extent during the period after the panic of 1825, as it certainly did down through the panic, is that temporary advances were available to the market from the Bank direct.

Because of the fact that the Treasury regularly deprived the market of funds on a large

scale during each quarter, the Bank (after 1829) made temporary advances to the market at a rate commonly less than discount rate in order to prevent discount rate from becoming more effective. When the Bank, however, desired to tighten credit, the rate on temporary advances was at the same level as Bank rate. But even then the generally more liberal eligibility rules for advances made them of some real advantage to the public. Thus the rate for advances, coupled with the fact that through the Treasury's absorptions of funds the market was forced to apply for them, determined the effective terms of credit — within certain limits — during about half of each quarter.

Special Advances

Owing to very large special deposits the Bank in 1833 began making special advances to the market at a rate under discount rate. During most of the period 1833-1838 they were made only by private arrangement with the discount houses, but during several months in 1835-36 they were made to the public at an advertised rate. The advances were considered at the time as of an exceptional nature to meet a particular situation, but they became a permanent feature of Bank procedure. It is certain that advances to the discount houses at less than Bank rate by private arrangement were available part of the time from 1838 to 1844. After 1844 advances against government securities were available to the public continuously at Bank rate (which of course was nearer market rate than it had been), and usually at less than Bank rate during the periods when seasonal absorptions of funds by the Treasury were large, and when from special causes absorptions of funds from the market were large.

The point to be stressed with regard to advances is that they formed an important channel by means of which the market could adjust its reserve position without making it necessary for the bill brokers, or even merchants with prime bills, to discount at the Bank. Even when advances were charged the equivalent of Bank discount rate, they were of real aid to the public, since many classes of borrowers would have had to pay a higher rate than discount rate if the only channel for the release of funds had been discounts.

Discount Procedure

Before 1830 Bank discounting was nearly altogether for the merchants and traders. A shortage of reserve caused the London banks to restrict credit to the traders, which sent some of them to the Bank. The London banks did not have a rigid tradition against rediscounting during that period, but they rarely resorted to it. During the panic of 1825, however, they obtained accommodation from the Bank to a large amount. The bill brokers may also have applied to the Bank occasionally, but such was apparently not part of the normal procedure.

After 1830 the bill brokers went to the Bank for both discounts and advances when they could not obtain funds more cheaply elsewhere. But it is to be emphasized that until long after 1858 discounting for traders was greater in volume than for the discount houses. Under ordinary conditions the London bankers were willing to accept a lower rate for call money from the bill brokers than the rate they charged on discounts. Thus if the market rate for first class bills rose to the level of Bank rate they might continue to supply the bill brokers at less than Bank rate, in which case the latter would not be driven to the Bank. But the traders, finding an inadequate supply of credit with the private banks and bill brokers at a rate equal to Bank rate or having to pay a higher rate than Bank rate, would be driven to the Bank, and their going there would enable the private banks to adjust their reserve position. However, in a period of acute credit shortage the bill brokers could not obtain all the funds they required from the private banks, and were themselves compelled to apply to the Bank. But the pressure on traders to go to the Bank was also great at such times, since the bill brokers charged a higher rate than Bank rate. What has been said applies only to discounts for bill brokers. They regularly went to the Bank for the quarterly advances at less than Bank rate and sometimes received special advances.

When the Branches were established in 1826, the Bank began discounting for a few country banks within certain agreed limits at a rate of 3 per cent in return for their agreeing not to issue. The Branches discounted also for other nonissuing banks in periods of difficulty and to

some extent for country traders. These discounts provided another channel through which the supply of bank reserve in London was adjusted to the demand. For though discounts in the country were rationed, the Bank actually responded to the demand to a greater extent when there was pressure in the London money market.

One should not get the impression that discounts were merely negligible whenever the London rate for prime bills was less than Bank rate. Though the Bank until 1844 applied the same rate to all parties (except the country banks under agreement), different grades of bills from the market standpoint were eligible. This was true of bills taken in London as well as in the country. After 1844 the Bank could defend itself by charging higher rates than the minimum for second-grade paper, but then the minimum rate after 1844 was nearer the market rate. The result was that even a moderate shortage of credit would cause some merchants to come to the Bank.

The Bank never depended solely upon the rate in periods of great credit scarcity. During the Restriction period it had limited the amount of accommodation to individual parties and had limited the term of eligible bills to sixty-one days. During the panic of 1825 — before credit was finally relaxed — it refused such bills as it deemed necessary. At the Bank Charter inquiry of 1832 the Bank officials implied that the various other methods of restricting accommodation besides the rate were owing mainly to the usury laws. While it is true that the Bank depended principally upon the rate after their repeal, it continued to use other methods of restricting accommodation when occasion arose. It sometimes refused advances against government securities, it limited the amount of accommodation to particular parties, it limited the term of bills which it would take at all from discount houses, and when such bills were taken from traders they were charged higher rates.

The main conclusion to be drawn from a study of the Bank's actual procedure of internal control is that securities were not controlled by the Bank at some predetermined figure. The movement of total securities was associated only to a relatively unimportant extent with open-market operations. But, more important,

there were various channels by means of which the public had access to the Bank at their own initiative. Entirely too much significance is attached to the statement that Bank rate was normally higher than market rate. As has been stated, the fact that the prime bill rate in the market was under Bank rate did not mean that all traders stayed away from the Bank. Moreover, discounts were not the only channel by means of which the public had access to the Bank. The reason why discounts were not larger than they were was that other channels for adjusting reserves came into use with less pressure from the market.

Many modern critics claim that the Bank could have controlled its discounts if it had only regulated rates properly. I believe they forget that commercial banks make desperate efforts to maintain reserves at minimum requirements, and that, if their ability to maintain reserves is in question, requirements become greater. I believe they also assume that gold movements during the period under consideration were much more sensitive to contraction in England — so that discounts would be replaced by imported bullion — than was in fact the case.

To say that the Bank could not establish the amount of its securities at some predetermined level does not mean that it had no control over the willingness of the banks to lend or over the volume of business commitments. It had an effective procedure for governing the terms of credit in the market. Furthermore, the economic system of England of that period was probably more sensitive to changes in the cost of credit than either the American or the English system of our own day. The real difficulty was not the lack of an effective procedure of internal control but the requirements of the international standard.

The Strategy in Maintaining International Equilibrium

This brings us to the Bank's strategy in dealing with gold movements. One point is clear: Bank policy was never reduced to a simple formula, and the directors always resisted attempts to have their freedom of action curtailed. (Even the Act of 1844, which many of them favored, was not really an exception, since they

were told that they were to be allowed to manage the Banking Department with greater freedom than previously.) The principle was thoroughly engrained in the minds of the business community that good bills were convertible into Bank funds, and, regardless of the state of the reserve, there were only two occasions (1825 and 1847) when this principle was called into question. On those occasions the Bank's action was quickly reversed after an understanding with the Government. Until 1847 the Bank displayed a general willingness to get along on a small reserve, that is, to reduce the rate with a comparatively small increase in the reserve and to refuse to raise the rate drastically in the face of a drain. In 1839, when there was a question of the Bank's ability to maintain gold payments, the Bank nevertheless maintained a rate of only 6 per cent and supported the exchange with funds borrowed in Paris and Hamburg. As Palmer explained at the time, a higher rate would only have increased the alarm and affected the exchange adversely. During 1840 and 1841, when the bullion fluctuated around £4,000,000, the rate was left at 5 per cent. In the few decades following 1847 there was greater confidence in the ability of high rates to turn the exchange. From 1857 to 1873 Bank rate was raised to 8 per cent on eight different occasions. From one standpoint this was much more drastic action than was taken during the previous period; but on the other hand there was no serious threat that good bills on London could not be turned into the international currency of account.

The Bank officials claimed to regulate the rate with reference to the reserve. But in practice they refused to follow any formula. As a governor once stated, the Bank considered, in addition to minor gold movements at the time, probable future gold movements, the state of trade, the condition of borrowers, the markets for produce, the harvests, and home and foreign politics. To my mind, this meant really that the Bank had no formula. While gold movements were a very important factor in regulating the rate, there was no automatic or predictable relation between the two.

I have taken the view that the Bank, instead of adjusting its position to an international gold standard that was governed automatically by

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natural law, managed the international standard. The banks in other countries were sensitive directly to credit conditions in London for the reason that their liquidity depended so largely upon their position with regard to London — their supplies of London bills and balances and their ability to convert other assets into sterling. This was because of the custom which had grown up of settling international obligations in London and of holding London bills and balances for that purpose. But the

Bank's management of the standard was not on a secure footing. While it could influence within limits the willingness of foreign banks to hold gold, it could not really compete with them for gold if they were determined to have it at the expense of their sterling holdings. The Bank, being the bank of last resort for gold the world over, could refuse to extend credit only by destroying the system of payments in pounds sterling. This would have meant greater pressure than the City showed any willingness to tolerate.

CONTROL OVER THE COUNTRY BANKS: THE PROBLEM

BEFORE discussing the contemporary theories of the control exerted by the Bank of England over the country banks it seems desirable to describe the main characteristics of the country banking system, particularly those which might have a bearing upon the problem of control. It also seems appropriate at this point to consider the problem from the standpoint of modern monetary theory. These are the aims of the present chapter. The next chapter will deal with the contemporary theories of control.

1. *Salient Features of the Country Banking System*

The next ten pages or so are necessarily detailed and the reader who desires to do so may turn at once to the summary of the features of the country banking system given at the end of this section. It may be noted, however, that the writer has taken a position with regard to the control over the country banks at variance with the usual view presented by modern writers, and the following detailed account forms an essential part of the supporting argument.

As late as 1826, Liverpool and Robinson, the Prime Minister and the Chancellor of the Exchequer, could say that within the memory of many then living there were no country banks except in a few great commercial towns, the currency consisting of Bank of England notes and coin.¹ There was undoubtedly a rapid development of country banking in the late eighteenth and early nineteenth centuries.² Accord-

ing to Thornton, many of the country banks began as a subsidiary part of the merchants' business. To accommodate their customers the merchants issued drafts on London and paid out or received gold. They issued notes payable on or after a certain date, but they found that those circulated best which were payable on demand.³

Thornton estimated the number of country banks at 353 in 1797, and 386 in 1800.⁴ Table 1 shows the number of banks and number of licenses to issue⁵ commencing from 1809. Though the data are no doubt representative of the change in the number of bona fide bankers, some of those appearing on the lists, according to Burgess, were not bankers in the real sense of the word, but only tradesmen who issued notes.⁶ The decline in the number of banks following the Act of 1826⁷ was no doubt owing largely to the consolidation of private into joint stock banks,⁸ but there had also been a large decline before that.

Since official returns of the amount of the country circulation go back no further than 1833, we are dependent for earlier years upon estimates calculated from the stamp returns and estimates based upon sample reports.

¹ Henry Thornton, *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain* (1802), ch. vii. Even as late as 1832 Stuckey refers to *cash notes* and *notes given for deposits*, the latter bearing a government stamp like the rest, though paying interest (Evidence, 1832, questions 945-947, P.P. 1831-32, vi).

² Thornton, *Paper Credit*, p. 154. Cf. Ellison, *Ev.*, H.C. 1797, p. 69.

³ Burgess states that a license was required for each branch issuing notes as well as for the parent bank (*Ev.*, 1832, q. 5154). J. W. Gilbart says that branches in excess of four required no further license (*The History and Principles of Banking*, third ed. 1837, p. 110).

⁴ *Ev.*, 1832, q. 5175.

⁵ 7 Geo. IV, c. 46.

⁶ Stuckey, for example, was a partner in five different banks, which he united after the Act (*Ev.*, 1832, q. 1008).

¹ *Communications between the First Lord of the Treasury and the Chancellor of the Exchequer, and the Governor and Deputy Governor of the Bank of England*, Parliamentary Papers 1826, (2), xix. From other evidence it appears that only a very small amount of Bank notes circulated in the country. See below.

² Cf. R. G. Hawtrey, *The Art of Central Banking* (1932), p. 118.

TABLE 1
NUMBER OF COUNTRY BANKS AND NUMBER OF
LICENSES TO ISSUE NOTES, 1809-1842^a

For the year ending October 10	Number of country banks ^b			Number of licenses to issue ^c
	Private	Joint stock	Total	
1809	755	...	...	702
1810	783	...	...	782
1811	741	...	...	779
1812	739	...	...	825
1813	761	...	...	922
1814	733	...	...	940
1815	699	...	...	916
1816	643	...	...	831
1817	585	...	...	752
1818	576	...	...	765
1819	587	...	...	787
1820	...	...	...	769
1821	521	...	...	781
1822	526	...	...	776
1823	547	...	...	779
1824	547	...	...	788
1825	544	...	...	797
1826	554	0	554	809
1827	465	6	471	668
1828	456	7	463	672
1829	460	11	471	677
1830	439	15	454	671
1831	436	19	455	641
1832	424	25	449	636 ^d
1833	416	35	451	
1834	416	47	463	
1835	411	55	466	
1836	407	100	507	
1837	351	107	458	
1838	341	104	445	
1839	332	108	440	
1840	332	113	445	
1841	321	115	436	
1842	311	118	429	

^a Sources: Report, H.C.1819, app. 35; H.L.1819, app. F9; Report, 1832, app. 98; P.P.1843, (85), LII. Compare with Report, 1857, app. 21.

^b From 1809 to 1819 the number of banks given refers to those licensed to issue. However, at that period there were few nonissuing banks. From 1821 the number refers to those registered with the Office of Stamps and Taxes, and includes nonissuing banks.

In 1844 there were 208 private and 72 joint stock banks of issue. The exact number of nonissuing banks is not available, but there must have been about 120. Cf. Report, 1857, app. 21. For 1859 Gilbart gives the following data for country banks: 153 private and 63 joint stock banks of issue; 90 private and 22 joint stock banks not issuing. The branches of the banks (in addition to the main offices) were respectively 203 and 394; 50 and 67. There were also 99

Table 2 gives the simplified estimate of J. Sedgwick, Chairman of the Board of Stamps. It was based upon the assumption that stamps sold represented new notes issued and that a third of those issued (in any one year) passed out of circulation at the end of a year, two thirds at the end of two years, and the remainder at the end of three years.

TABLE 2
CIRCULATION OF THE COUNTRY BANKS, 1807-1825, AS
ESTIMATED BY J. SEDGWICK, CHAIRMAN OF THE
BOARD OF STAMPS^a
(Year ending October 10. Amounts in thousands of pounds.)

1807	18,022	1817	15,898
1808	16,872	1818	20,507
1809	23,702	1819	17,367
1810	23,894	1820	11,767
1811	21,453	1821	8,414
1812	19,944	1822	8,067
1813	22,597	1823	8,798
1814	22,709	1824	10,604
1815	19,011	1825	14,147
1816	15,096		

^a Sedgwick's method of estimating the amount of notes outstanding in any given year was to add together the notes stamped during that year, two thirds of those stamped the year before, and one third of those stamped the second year before. See Report, H.L.1819, app. F8, where the data are given for the years 1811-1818. For earlier and later years, see Robert Mushet, *An Attempt to Explain from Facts the Effect of the Issues of the Bank of England* (1826), p. 215.

Gurney claimed that the stamp returns were a fallacious guide to the amount of the circulation, since stamped notes remaining in the hands of the country bankers might be very large. He thought the country circulation during the period 1822-1824 probably did not exceed £8,000,000.⁹ The critics generally were anxious to show that the estimate greatly exaggerated the increase from 1822 to 1825. (It should be noted that a resolution of the House of Commons in 1819 required the small notes of the

⁹ Samuel Gurney, *Ev.*, 1832, qs. 3633-34. Stuckey also stated that estimates based upon the stamp returns were quite inaccurate (*ibid.*, q. 1043).

country branches of the London and County Bank. (*The Elements of Banking*, 4th ed., 1860, pp. 78-86.)

^a A license was required for each branch which issued notes up to a total of four branches.

^b From October 11, 1831 to June 26, 1832.

country banks to be redeemed in 1825 and that a subsequent act in 1822 extended the redemption date to 1833.¹⁰ Henry Burgess, Secretary to the Committee of Country Bankers,¹¹ claimed that, following the Act of 1819, the country circulation declined and that the country bankers did not want to buy new stamps while they had old stamped notes. After the privilege of issuing small notes was prolonged in 1822, the bankers laid in a supply of new notes. About the same time some banks discarded their old notes and had new ones printed that were better proof against forgery. Moreover, he stated, Sedgwick's estimate of the average life of a note was too small.¹² In support of his contention Burgess submitted index numbers of the circulation of 122 banks which he claimed were representative.¹³ In Table 3 I have averaged his index numbers for individual banks and compared the resulting index with one computed from Sedgwick's estimate. Tooke favored Burgess's general estimate as against Sedgwick's.¹⁴ He

£7,000,000 in 1821, and that there was a large increase from 1822 to 1824.¹⁶ Palmer thought there was a great enlargement from 1823 to 1825 but he did not specify how much.¹⁷ Everything considered, I believe Sedgwick's estimate of the country circulation greatly exaggerates the extent of the fluctuations.¹⁸

To what extent did the country issues consist of denominations under £5? Tooke thought that in 1811 they amounted to no more than £4,000,000 or £5,000,000.¹⁹ Palmer estimated the small notes for 1819 at £7,000,000 or £8,000,000,²⁰ a little less than half the total country issues, using Sedgwick's estimate of the total. Wilkins's £1 issue was one half of his total issue in 1828.²¹ Beckett's £1 issue was considerably more than one half until 1826.²² However, Stuckey's banks prior to 1826 issued less than a fourth in £1 notes.²³ After the panic of 1825 the Government, reversing its position of 1822, decided to prohibit small notes after 1829.²⁴ Actually it refused at once, though apparently without legal authority, to issue any more stamps for country small notes.²⁵

We are interested in having the facts regarding the country circulation as complete as possible so that we may test the numerous state-

TABLE 3

INDEXES OF THE COUNTRY CIRCULATION, 1818-1825

Year	Index from Sedgwick's data	Index from Burgess's data
1818	100	100
1819	85	98
1820	57	94
1821	41	93
1822	39	88
1823	43	88
1824	52	95
1825	69	102

thought computations of the amount of notes based upon stamp sales were "the most vague and unsatisfactory imaginable."¹⁵ Ward, on the other hand, estimated that the country circulation fell from £20,000,000 in 1818 to

¹⁰ Palmer, Memorandum to the Bank Charter Committee (following his evidence), Report, 1832. The date for the redemption of the small notes of the Bank was set for 1823 but extended also to 1833. The Bank redeemed most of its small notes in 1821 and made no use of the extension of the privilege except for the period of the panic and shortly after.

¹¹ Made up mostly of private bankers.

¹² Burgess, *Ev.*, 1832, qs. 5484-86.

¹³ *Ev.*, 1832, qs. 5155-65.

¹⁴ Thomas Tooke, *A History of Prices, and of the State of the Circulation*, II (1838), 128-131. See also pp. 114-115.

¹⁵ *Ibid.*, vol. I, p. 148. See also p. 370n.

¹⁶ *Ev.*, 1832, q. 1909.

¹⁷ Memorandum to the Bank Charter Committee, Report, 1832.

¹⁸ Silberling, however, believes that the amount of notes stamped each quarter affords a safe index of the variability of the issues ("British Prices and Business Cycles, 1779-1850," *Review of Economic Statistics*, vol. V, 1923, p. 243). For a criticism of Silberling's use of the stamp returns in deriving a series for the country circulation, see Jacob Viner, *Studies in the Theory of International Trade* (1937), pp. 163-165.

¹⁹ *History of Prices*, vol. I, p. 370.

²⁰ Memorandum to Bank Charter Committee. As can be seen from Chart VII in the Appendix, below, this was about the same as the amount of small notes of the Bank of England in 1819.

²¹ *Ev.*, 1832, qs. 1618-22.

²² *Ev.*, 1832, qs. 1306-07. Beckett's £5 note issue doubled between 1826 and 1832, which fact he attributed to the decline in his £1 issue (*ibid.*, qs. 1338-43).

²³ *Ev.*, 1832, qs. 1094-95.

²⁴ Communications between the Government and the Bank, P.P. 1826, (1), XIX. This decision was put into effect by 7 Geo. IV, c. 6.

²⁵ P. M. James, *A Summary Statement of the One Pound Note Question* (1828), pp. 19-20; also Gilbert, "Laws of Currency," *Journal of the Statistical Society*, XVII (1854), 290; and Thomas Attwood, *The Scotch Banker* (1828), p. 18.

ments that the country banks could turn out a flood of notes to finance speculation and that such issues were practically beyond the control of the central bank. To the extent that the country circulation consisted of small notes, it seems hardly likely that it could have initiated a speculative movement.²⁶

For what kinds of payments, according to contemporary observers, were the notes used? Robert Mushet reasoned as if the country banks discounted bills largely with notes,²⁷ but David Robinson claimed that country notes were rarely used to discount bills unless the money was for the purpose of paying wages.²⁸ The country bankers who gave evidence before the Bank Charter Committee also claimed that they paid out notes only for wages or other local expenses. In discounting bills they would use either Bank of England notes or bills on London unless they knew the money was to be spent locally.²⁹ Beckett (of Leeds) stated that about two thirds to three quarters of the wages in his district were paid in gold and silver and the remainder in country notes.³⁰ Forster (of Walsall) placed the proportion paid in gold at one half to two thirds.³¹ Before the Select Committee of 1841, Hobhouse (Chairman of the Committee of Country Bankers) argued that country bankers would pay out their own notes only when they knew the money was to be spent locally. About one third of his payments were in his own notes. If a banker discounted bills with his notes (assuming the money was

not wanted for local payments) they would probably be returned the following day.³² Stuckey seldom gave his notes in discounting bills or in paying deposits, as the funds would ordinarily be used outside the district. Advances to farmers were made in notes. Also a farmer selling livestock in London might convert the check received in payment into local notes in Somersetshire, though he might leave his money on deposit with Stuckey's bank, since he could readily buy more cattle with his own check.³³

Let us consider what the circulation of the country consisted of and where the notes of the country banks circulated most. Thornton in 1797 thought that few notes of the Bank of England circulated beyond twenty or thirty miles from London.³⁴ In 1826 a Treasury paper stated that Bank notes circulated nowhere beyond London and its immediate neighborhood and in Lancashire.³⁵ (Notes in bank reserves were evidently not taken into account.) Palmer in 1832 estimated that no more than £2,500,000 of Bank notes, not including those in bank reserves, circulated beyond twenty miles from London.³⁶ By 1832 the yearly average circulation of the Branches of the Bank was £2,695,700. It rose to £4,087,005 in 1839, to £7,127,604 in 1845, and was only £6,975,406 in 1856.³⁷ But the returns of the Branches do not give an accurate account of the amount of Bank notes in actual circulation in the country, since a considerable amount was held as till money by the country banks and since some notes issued in London were held in the country.³⁸ Thomas Joplin in 1844 estimated that about a fourth of the Branch notes were held in

²⁶ In *The Pound Sterling* (1931), p. 218, A. E. Feavearyear claims that the boom in many industries (in 1824 and 1825) was "financed largely with small notes." This statement does not seem to accord with the discussions of banking methods by contemporary observers. Cf. William Smart, *Economic Annals of the Nineteenth Century, 1821-1830* (1917), pp. 339-341.

²⁷ *Effect of the Issues of the Bank of England*, p. 148. Silberling also considers that "advances of credit" were mostly in the form of notes (*Review of Economic Statistics*, v, 242).

²⁸ "Public Distress," *Blackwood's*, xix (1826), 435-436.

²⁹ William Beckett, *Ev.*, 1832, qs. 1367-1425; C. S. Forster, *ibid.*, qs. 1464-70. Forster said he could discount bills with his notes, as they were payable in London, but that actually he discounted few bills that way.

³⁰ Beckett, *Ev.*, 1832, q. 1302. Weguelin stated that "formerly" it was very much the practice to pay half a dozen men a note, which was exchanged at a retail shop. *Ev.*, 1857, q. 51.

³¹ *Ev.*, 1832, qs. 1472-74.

³² *Ev.*, 1841, qs. 31-34, 129-135.

³³ *Ev.*, 1841, qs. 456, 494, 515.

³⁴ *Ev.*, H.C.1797, p. 77.

³⁵ Communications between the Government and the Bank, P.P. 1826, (2), xix.

³⁶ *Ev.*, 1832, q. 414.

³⁷ Report, 1857, app. 3; Report, 1838, app. 4. The yearly averages of the circulation of the Bank Branches were, in millions of pounds:

1828.....	.6	1834.....	3.2	1840.....	4.0
1829.....	1.0	1835.....	3.3	1841.....	4.2
1830.....	1.8	1836.....	3.6	1842.....	4.9
1831.....	2.4	1837.....	3.8	1843.....	5.4
1832.....	2.7	1838.....	4.0	1844.....	6.5
1833.....	3.1	1839.....	4.1	1845.....	7.1

The first four years (only) include small amounts of Bank post bills.

³⁸ Cf. Palmer, *Ev.*, 1832, q. 3; Gilbert, "Laws of Currency," pp. 302-303.

the tills of the country banks.⁴⁰ Undoubtedly the Bank circulation tended to displace the circulation of the country banks after 1826, though it is difficult to estimate to what extent. The country bank circulation increased until 1839. From 1839 to 1845 it declined more than £4,000,000, whereas the Branch circulation increased £3,000,000. It is probable, however, that the decline of the country bank circulation was more largely in the agricultural districts—owing to the depression and to the increased use of deposits—and that the increase of the Branch circulation was more largely in the manufacturing districts, particularly Lancashire.

It was generally agreed that country bank notes did not circulate in Lancashire to any appreciable extent.⁴¹ According to Gilbert, large Bank of England notes were used in Liverpool for the payment of customs duties and small notes in Manchester for wage payments, but the remaining circulation in Manchester and Liverpool consisted of bills of exchange down to 1826. After the Branches were established at those places the notes of the Bank grew gradually at the expense of bills of exchange.⁴² Bills were used as a substitute for bank notes not only by tradesmen; even banks paid out bills which they had previously discounted.⁴³ Burgess said that, until the high stamp duties drove them out, bills as small as £5 were in circulation. They still (in 1832) formed the "great" currency of Lancashire. In the West Riding of Yorkshire nine tenths of the circulation was in bills; they formed a great part in Warwickshire and Staffordshire and in general in the manufacturing districts of England.⁴⁴ Apparently, then, bills were used as a

circulating medium in other manufacturing districts, though not to the exclusion of country bank notes to the same extent as in Lancashire.⁴⁵

The sphere of circulation of the country bank notes changed decidedly in the half-century ending in 1844. In the late eighteenth century they circulated mostly in a few great towns.⁴⁶ With the development of hundreds of country banks in the late eighteenth and early nineteenth centuries, the use of their notes became common in the agricultural districts. Following the establishment of the Branches of the Bank of England, country bank notes were confined more largely to the agricultural districts. It is not certain how far this transition had proceeded by 1825. But, judging by the rapid development of country banking which had occurred, it seems probable that more than half of the country circulation was in the agricultural districts by that time. David Robinson claimed that in 1826 the manufacturing districts and seaports, excluding London, Liverpool, and Manchester and their neighborhoods, had scarcely any other circulating medium than country bank notes.⁴⁷ This statement merely

ter to the Right Hon. George Canning . . . (1826), pp. 19, 83.

⁴⁰ Robinson claimed that in the country towns good bills with no more than sixty days to run were taken by business men without discount, though banks, of course, charged a discount ("Public Distress," *Blackwood's*, 1826, XIX, 435). Sir Henry Drummond estimated the bills used as currency in Great Britain in 1826 at £8,000,000 (*Elementary Propositions on the Currency*, 4th ed., 1826, p. 33). J. W. Bosanquet (*Metallic, Paper, and Credit Currency*, 1842, p. 91) quotes the following from William Leatham, a banker at Wakefield: "When the origin of Bills is bona fide and legitimate, I place them, with the security of the drawer, acceptor, and perhaps twenty endorsements on the back, in the first class of our Currency—before Notes, and next in rank only to Gold."

⁴¹ "I know no purpose of Money except wages to which Bills are not applicable, in the provinces throughout this kingdom, though not seen in London in making payments." (*Letters to William Roynor Wood on the Currency*, 1841, p. 38.) See also Alfred Marshall, *Money, Credit, and Commerce* (1903), p. 142B.

⁴² In a paper submitted by the Government it is stated that they circulated only in a few great towns (Communications between the Government and the Bank, P.P. 1826, (2), XIX). Stacey, however, stated that country banks had made advances in their own notes to farmers from "time immemorial" (*Ev.*, 1842, q. 494). It is possible that "time immemorial" in 1842 meant fifty or sixty years back.

⁴³ "Public Distress," *Blackwood's*, XIX, 434.

⁴⁰ *Currency Reform: Improvement not Depreciation* (1844), pp. 22-23.

⁴¹ See the evidence of Geste, 1832, q. 4715, and Dyer, q. 4190-94.

⁴² Gilbert, "Laws of Currency," p. 291. He stated that these bills were all made payable in London, so that Bank notes were not required to pay them. Robinson pointed out that the bill circulation depended upon the country banks, since they received the bills on account and sent them up to London for payment ("The Country Banks and the Bank of England," *Blackwood's*, XIX, 1827, p. 737).

⁴³ Gilbert, "Laws of Currency," p. 307; I. C. Wright, *Ev.*, 1842, q. 1635-36. Stacey said that he did not circulate bills as they did in the North (*Ev.*, 1832, q. 1180).

⁴⁴ Burgess, *Ev.*, 1832, q. 5328-33. See also his *Let-*

allows us to believe that the country notes still circulated generally in all sections, Lancashire excepted. In 1841, however, Rodwell (a banker at Ipswich) claimed that by far the greater proportion was held in the agricultural districts.⁴⁷ Taking notes of the private banks alone, Hobhouse thought that little if any more than half a million pounds were in use in the commercial and manufacturing districts.⁴⁸ As is apparent from Chart xvi in the Appendix, below,⁴⁹ the seasonal patterns of the two sorts of notes (private and joint stock) are so nearly alike that the conditions of the demand for them must have been very similar. Therefore, if the notes of the private banks circulated largely in the agricultural districts, those of the joint stock banks probably circulated largely there also.

Before considering the reserves which the country banks maintained it seems desirable to consider the kinds of demands which were commonly made upon them. A large proportion, but by no means all, of the country notes were payable in London. Stuckey's notes had been payable in London since about 1770, though he pointed out that such was not the practice in many parts of England, particularly Devonshire.⁵⁰ The replies to the Select Committee of 1836 show that the notes of nearly all the joint stock banks were payable in London.⁵¹ The Bank of England, at least after 1825, accepted country notes on deposit provided they were payable in London and presented them to the appropriate London correspondent for payment.⁵² As for the local exchanges among banks, Stuckey cleared notes and checks with banks in the same town every day, and paid differences in London funds — in some cases once a week and in others every other day.⁵³ Forster said

the country bankers commonly paid (local) differences in Bank notes before the Branches were established.⁵⁴ After 1832, he implies, they paid in funds at the Branch if one was near. Wilkins exchanged with some banks weekly, with some fortnightly, and with others monthly, and paid differences "in London" — presumably, he meant in London funds.⁵⁵ The Edinburgh banks cleared weekly and paid differences in London funds down to 1834. After that they settled in Exchequer bills — amounts for less than £1000 in Bank notes.⁵⁶

The discounting of bills did not apparently entail the keeping of a large amount of till money in the country.⁵⁷ As we have seen, the bankers would commonly discount bills with their own bills on London, though in some cases with Bank notes.⁵⁸ And the bills, being payable in London, would be taken up for the customer from the country banker's London deposit.

Until 1829 (when the £1 note was abolished) the banks could meet most of the demands over the counter in their own notes provided they were not in discredit.⁵⁹ After 1829 they had to keep gold and silver to provide for payments under £5, which, as we have seen, included the larger portion of wage payments. With the growth of nonissuing banks (or the nonissuing

⁴⁷ Ev., 1832, q. 1549.

⁴⁸ Ev., 1832, qs. 1693-95.

⁴⁹ James Pennington, paper in *Tooke's Letter to Lord Grenville* (1829), pp. 121-122; A. W. Kerr, *History of Banking in Scotland* (2nd ed., 1902), p. 221. It should be noted, however, that the agreement among the Edinburgh banks called for a redistribution of Exchequer bills held for exchange purposes whenever any bank held a disproportionately large or small amount, the bank receiving additional bills making payment in London funds to the bank giving them up. The consequence was that any large variation in reserve affected a bank's supply of London funds.

⁵⁰ For a discussion of the amount of bills in use, see William Newmarch, "An Attempt to Ascertain the Magnitude and Fluctuations of the Amount of Bills of Exchange . . . 1828-1847," in the *Journal of the Statistical Society*, vol. xiv (1851); and his Appendix xi, in *Tooke and Newmarch, A History of Prices*, vol. vi. It should be noted that Newmarch referred to all bills current as in "circulation." Most of them probably did not circulate in the sense that bills were said to circulate in Lancashire, as substitutes for bank notes.

⁵¹ Beckett said he discounted with Bank of England notes (Ev., 1832, qs. 1400-25).

⁵² Joplin, *Views on the Currency* (1828), p. 154.

⁴⁷ Ev., 1841, q. 699.

⁴⁸ Ev., 1841, q. 9.

⁴⁹ See pp. 216-217.

⁵⁰ Ev., 1832, qs. 947-964. Stuckey said that it was under the forbearance of the Bank that joint stock banks made their notes payable in London. Cf. 7 Geo. IV, c. 46, sec. iii.

⁵¹ Report, 1836, appendix. The notes of Wilkins (at Brecon) and of Beckett (at Leeds) were not payable in London, though Beckett stated that it was a common practice in other parts of England (Ev., 1832, qs. 1693-95, 1427-28).

⁵² Palmer, Ev., 1832, q. 329.

⁵³ Ev., 1832, q. 1184. Notes of any one of Stuckey's fourteen branches were payable at another branch in practice, though there was no legal obligation to that effect (*ibid.*, qs. 948-950).

branches of issuing banks)⁶⁰ beginning after the panic of 1825, particularly in the manufacturing districts, Bank notes were required as till money in place of their own. On the other hand, gold and Bank notes were more conveniently accessible to the country banks after 1826, when the Branches were started. Issuing as well as nonissuing banks were permitted to have accounts at the Branches for the purpose of obtaining coin; and they were permitted to shift deposits from the account with their London correspondent to their account at the Branch and *vice versa*.⁶¹ However, some of the country banks were not conveniently located near a Branch, and so continued to get gold through their London correspondent.⁶²

It is evident, therefore, that a very large proportion of the demands which were made upon a country banker could be liquidated in London funds; though we must not overlook the fact that some bills were discounted with Bank notes and some clearing balances paid in notes. As Pennington stated, "the book debts of the London bankers, and not Bank of England notes, are the solvent of the country circulation."⁶³ Considering also that gold and notes were more accessible to the banks because of the Branches, it is not surprising that the country banks were said to keep very small reserves in gold and Bank notes.

The statements regarding reserve proportions are rather misleading, as they almost invariably give the reserve as a proportion of the notes outstanding, when in fact it was held against notes and deposits. I do not mean to imply that the two kinds of liabilities should have been added together in order to arrive at a significant reserve ratio. Though some till money would be needed against notes outstanding, the till money (not including the banks' own unissued notes) required against deposits would be less. The need for till money really depended

upon the size of the fluctuations in the public's holdings of that particular kind of money, and the size of these fluctuations would not vary with the amount of country notes or deposits. No doubt the country bankers arrived empirically at the *amount* of till money necessary.

Stuckey in 1819 considered that a reserve in Bank notes equal to 5 per cent of his circulation was sufficient. According to his evidence in 1832, he held in ordinary times Bank notes and gold equal to 10 per cent of his circulation, though sometimes 20 or 25 per cent. It is not clear, however, that he was not including his "money in the Branch Bank," which, as he noted, could be converted into gold immediately.⁶⁴ Beckett held coin equal to one seventh and coin plus Bank notes equal to one half of his circulation.⁶⁵ The reason for this larger percentage was apparently that his bank, being in a manufacturing district, held more deposits relative to the circulation than Stuckey's bank. Forster held no Bank notes at all, though he stated that the general practice was for country bankers to keep some. His gold had been equal to a third of his circulation, but since he had arranged to get a supply near at hand it was apparently less. Sometimes, however, his reserve had been equal to his circulation.⁶⁶ Wilkins, who could obtain gold and Bank notes from the near-by Branch at Swansea, held from 10 to 20 per cent in his till. Before the Branch was established his reserve had been twice that.⁶⁷ Burgess stated that practices varied, but that in general the country banks held a reserve in coin and Bank notes equal to one fourth of their circulation, though some banks kept no Bank notes at all.⁶⁸ Palmer, referring to gold alone, stated that they held less than one fourth.⁶⁹ A minute of the Bank directors stated that the joint stock banks held no larger

⁶⁰ Issuing banks had offices in Liverpool, for instance, but they did not issue there (Gilbart, "Laws of Currency," pp. 306-307).

⁶¹ Palmer, Ev., 1832, qs. 60-66, 419, 449-451, 458. Issuing banks could not, however, open accounts for "general purposes," i.e., for discounts.

⁶² Palmer, Ev., 1832, q. 288. Forster, though located near a Branch, would not use it. He obtained his gold from an unnamed source near by. See his evidence, 1832, q. 1479.

⁶³ Paper in Tooke's *Letter to Lord Grenville*, p. 127.

⁶⁴ Ev., H.C. 1819, p. 245; Ev., 1832, qs. 1135-44. In discussing facilities for obtaining gold, he said that the Branches took the risk and maintained a supply "rather than ourselves." He omitted any reference to his deposits in speaking of the reserve.

⁶⁵ Ev., 1832, qs. 1282, 1338-61.

⁶⁶ Ev., 1832, qs. 1465-1507. He refused to use Bank of England notes because he regarded the Bank as a dangerous rival.

⁶⁷ Ev., 1832, qs. 1756-58.

⁶⁸ Ev., 1832, qs. 5557-59.

⁶⁹ Ev., 1832, q. 415.

reserve than was required to meet ordinary demands, so that in any extraordinary pressure they were required to sell securities in order to obtain gold at the Bank.⁷⁰ Palmer reiterated this point in his pamphlet in 1837.⁷¹ According to Hobhouse, in 1841, the reserve in Bank notes and coin was from one fifth to one seventh of the circulation, though rising to a much greater proportion in times of panic.⁷² Fullarton in 1844 claimed that the gold reserve in the country banks was less than £500,000.⁷³

In view of these varying statements and of what we know of the kinds of demands which were made upon country banks for coin and Bank notes, it seems reasonable to conclude that the Bank notes held as till money in 1819 were of the order of 5 per cent of the country circulation. As time went on the proportion of Bank notes and coin to country bank circulation increased, partly because the £1 note was prohibited, partly because the public used a greater proportion of Bank notes to country notes, and partly because the business of the country requiring coin grew relative to the country circulation.⁷⁴ Still, Burgess's estimate of 25 per cent in 1832 seems too large — very much too large for banks located near a Branch of the Bank. To make my conclusion concrete, I should think that during the 'thirties an average of 15 per cent was more nearly correct, though the percentage varied from bank to bank. But the precise percentage is not so important. What is important is to see that the country banks held in their tills only such cash as they deemed necessary to take care of their immediate needs, so that a more favorable balance of payments with London did not represent a potential drain of cash from London to the provinces unless the volume of trade and employment and the level of prices (particularly retail prices) increased.

It is not possible to give an estimate of the

⁷⁰ *Correspondence . . . on the Subject of the Renewal of the Bank Charter*, P.P. 1833, (352), XXIII.

⁷¹ *The Causes and Consequences of the Pressure upon the Money-Market* (1837), pp. 38-39.

⁷² *Ev.*, 1841, qs. 115-135.

⁷³ John Fullarton, *On the Regulation of Currencies* (1844), p. 194.

⁷⁴ As pointed out above, the till money required depended upon the probable demand for such money regardless of the notes outstanding.

amount of reserve deposits which the country banks maintained with their London correspondents. In referring to the reserve, bills and government securities were often combined with London deposits. Thornton, for example, stated that a country banker had only to provide himself with a credit with his London correspondent, stock, Exchequer bills, or discountable bills in order to obtain cash as he needed it.⁷⁵ The size of the London balance was determined not merely by the need for a balance as such. The balance was viewed as a means of compensating the London bank for its services in collecting and paying bills, checks, and bank notes — the maintenance of a certain minimum being an alternative to paying a commission.⁷⁶ One suspects that, when bills could be readily discounted, Exchequer bills easily sold, and continuation loans on stock obtained at low rates, the country bankers did not consider the size of their London balance of great importance, and viewed their correspondent primarily as an agent for transacting business for them. They looked principally to their secondary reserve. In periods of pressure they undoubtedly converted bills into London balances. By the 'thirties some of the country bankers maintained balances with bill brokers in order to obtain interest. Cassels, in addition to keeping funds on deposit with his broker, kept bills there ready for discount, the broker not charging discount unless the money was actually withdrawn.⁷⁷

⁷⁵ *Ev.*, H.C.1797, p. 80. See also his *Paper Credit*, pp. 185-186, which is to the same effect.

⁷⁶ Gilbert stated that the country banks could compensate the London and Westminster Bank by maintaining a satisfactory balance, by a commission, or by the payment of a fixed sum (*Ev.*, 1837, q. 1972). As late as 1819 the London banks had allowed interest on country bank balances. Stuckey stated that the rate was 3 to 4 per cent; though a certain amount had to be kept without interest to compensate the London bank for transacting the country bank's business (*Ev.*, H.C.1819, p. 245). Gurney stated that in some cases interest was allowed and that the rate was 4 per cent (*Ev.*, H.C.1819, p. 173). Before 1832, probably beginning with the depression in 1826, the practice was discontinued (Glyn, *Ev.*, 1832, qs. 2934, 3128).

⁷⁷ *Ev.*, 1836, qs. 1757-64. See also Gibbins, *Ev.*, 1836, qs. 992-996. Glyn pointed out that the country bankers dealt with the bill brokers directly and not necessarily through their correspondents (*Ev.*, 1832, qs. 2935-36). Newmarch (*History of Prices*, VI, 603) estimated that in 1850 the provincial banks (including those of Scotland) held

The country banks kept balances at the Bank Branches also if one was near by. These balances were for the purpose of obtaining till money conveniently, and they were also required as a condition to obtaining discounts.⁷⁸ They could not have been large, however, since total Branch deposits amounted to little more than half a million until 1842, and were a little over a million in 1846. Even though the Bank did not encourage private accounts,⁷⁹ aggregate traders' balances must have amounted to a substantial portion of total Branch deposits, so that country bankers' balances must have been quite small.

We may conclude at this point that a condition of greater liquidity of the country banks was reflected mainly in increased holdings of bills eligible for discount with the London banks and bill brokers, in Exchequer bills, and in balances with London banks and (after about 1830) with bill brokers. There is no statistical evidence that the country bankers shifted deposit balances (in the net) from London banks to the Branches in appreciable amounts over a period of a few months. A condition of greater liquidity had little effect upon the amount of till money unless the requirements of the public increased.

It remains to consider the extent to which the deposit business of the country banks had developed. Thomas Attwood estimated that the liabilities of the bankers to the public in 1828 were £200,000,000. This estimate, probably no more than an intelligent guess, included London liabilities as well as notes and deposits of the country banks.⁸⁰ Robinson stated that a large part of the "capital" of every bank in 1825 consisted of "deposits of solid money,"⁸¹ which would imply at least that country deposits were important. Deposits grew at the expense of bills as well as bank notes. Some idea of the growing importance of deposits may be obtained from the fact that, of the joint stock banks established from 1826 to 1836, 93

were banks of issue (at least at some of their offices) and 21 were not, whereas from 1837 to 1844 only 7 were banks of issue while 30 were deposit banks only.⁸²

The relative amounts of country bank notes and deposits as reported by the country bankers in 1832 varied widely. Four samples are as follows:⁸³

	Notes	Deposits
Forster (Walsall)	17%	83%
Beckett (Leeds)	20%	80%
Wilkins (Brecon and Methyr Tydvil)	34%	66%
Stuckey (Bristol and County of Somerset)	50%	50%

Stuckey's evidence is of particular interest since it covers a long period. In 1819 his deposits were only a third as much as his circulation, whereas by 1841 they somewhat exceeded his circulation.⁸⁴ Norman estimated total country deposits in England and Wales at £40,000,000 in 1840, which was approximately four times the country circulation at that time.⁸⁵ Newmarch estimated deposits and capital together (for England and Wales outside of London) at £84,000,000 to £91,000,000 for 1850.⁸⁶ He made no estimate of capital alone beyond saying that it was "very considerable," but, even if we assume that the capital equities were of the order of one fourth of the total, the country deposits (in England and Wales) would have

⁷⁸ Report, 1857, app. 21.

⁷⁹ Forster, *Ev.*, 1832, q. 1459; Beckett, q. 1282; Wilkins, q. 1583; Stuckey, *qs.* 1169-71. The witnesses did not give precise percentages, but only rough estimates.

⁸⁰ *Ev.*, H.C. 1819, p. 245; *Ev.*, 1841, q. 558. It is not quite certain whether these estimates are on a uniform basis, because the term "deposit" varied in meaning. However, in stating these proportions, the witnesses appeared to include both time and demand deposits.

⁸¹ *Ev.*, 1840, q. 2565. He estimated deposits in Scotland at 18-20 million pounds; Ireland, 10-15 million; London, including the Bank of England, 30 million. Stuckey, however, considered this estimate much too large. His own figure for London and English country deposits was three times the Bank of England deposits, which would have been only about 25-30 million pounds, as against Norman's figure of 60-62 million, leaving out Bank of England deposits. (*Ev.*, 1841, *qs.* 562-564.)

⁸² *History of Prices*, vi, 599-603. His estimate of the capital and deposits for Scotland (in 1850) was £33,000,000; and for Ireland £12,000,000.

£30,000,000 of bills which had been obtained from the London bill market.

⁸³ Issuing banks could not of course discount at the Bank. See Chapter VIII, section 3.

⁸⁴ Stuckey, *Ev.*, 1832, q. 1116; Glyn, q. 3054.

⁸⁵ *The Scotch Banker*, p. 12.

⁸⁶ "Public Distress," *Blackwood's*, xix, 440.

been very large. Such evidence as we have, therefore, points to the conclusion that the deposit business of the country banks was highly developed by 1844, and that deposits were probably five or six times the amount of their notes.⁸⁷ Consequently, a business revival would not be financed mainly by an expansion of country notes or by the withdrawal of money from London. This point should be emphasized, since it has been asserted by some modern writers that deposit banking relative to the issuance of notes was in a backward state at the time of the Bank Act of 1844.⁸⁸

It would be interesting to know to what extent these deposits were drawing accounts and to what extent they were savings accounts and bore interest, but there are few contemporary estimates. Stuckey (in 1832) paid interest on about a third of his deposits.⁸⁹ Hobhouse, whose deposits were in manufacturing towns, paid interest on a very small proportion (in 1841).⁹⁰ It was a general practice for country banks to pay interest on time deposits⁹¹ and to charge a commission upon amounts paid from drawing accounts, though not all banks charged a commission.⁹² One gets the general impression that

⁸⁷ Compare Feavearyear's estimate that "deposits formed at least one-half of the liabilities of every country banker" (*The Pound Sterling*, p. 289). Perhaps Feavearyear has given too much weight to the late development of check clearing. Even if a merchant could not send his check to another town, he could purchase a bill on London from his banker out of his drawing account, which was better than sending notes. Let us not forget that in the great commercial and manufacturing towns notes played little part at that time. In Liverpool there were no country bank notes.

⁸⁸ Ludwig von Mises, for example, states that the growth of deposits at the expense of notes was largely owing to the Act of 1844 (*The Theory of Money and Credit*, 1935, pp. 369-371).

⁸⁹ *Ev.*, 1832, qs. 1169-71.

⁹⁰ *Ev.*, 1841, qs. 129-130.

⁹¹ The word *deposit* as used in London meant a demand deposit; in the country it was supposed to mean a time deposit, or at least one on which interest would be sacrificed if withdrawn before a certain time, in contrast with a *drawing account*. See Beckett, *Ev.*, 1832, q. 1272, and P. M. James, *Ev.*, 1841, q. 1570. In actual discussion the connotation varied. Stuckey, for example, used the word to include both kinds of deposits.

⁹² The interest paid in 1832 varied from 2 to 3 per cent. See Beckett, *Ev.*, 1832, q. 1247; Forster, q. 1539; Wilkins, q. 1592; Stuckey, qs. 939-944; Loyd, q. 3278. The commissions on withdrawals varied from an eighth to 1 per cent (Glyn, *Ev.*, 1832, qs. 2865-66; Beckett, q. 1278; James,

interest-bearing deposits made up an important part of the total.

Since practically no Bank of England notes under £5 circulated after 1821 (except for a short period in 1825 and 1826), and few small notes of the country banks after 1829, the great mass of retail and wage payments in England (though not in Scotland and Ireland) had to be made with coin. The directors of the Bank approved the estimate that £30,000,000 in specie had been in circulation before the Restriction, all of which, it was believed, had been exported.⁹³ Drummond estimated the precious metals in 1826 at £20,000,000⁹⁴ for Great Britain. Mathew Marshall (Chief Cashier of the Bank) roughly estimated the gold in circulation and in the Bank at £44,835,000 on January 1, 1848. He estimated the silver at £11,000,000.⁹⁵ Newmarch estimated the gold in circulation in the United Kingdom at £46,000,000 for 1844 and at £70,000,000 to £75,000,000 for 1856. His figures of course exclude the bullion in the Bank but not the till money of the other banks.⁹⁶ Weguelin's estimate, which like that of Newmarch was based upon the amount of light-weight coin turned in following the proclamation of 1842, was £33,000,000 to £36,000,000 for the period 1844-1851 and £45,000,000 (at least)

Ev., 1841, qs. 1492-93). Wilkins charged no commission unless the account was overdrawn (*Ev.*, 1832, q. 1597). Practically all of the joint stock banks paid interest on time deposits in 1836. The most prevalent rates were 2½ and 3 per cent (Report, 1836, appendix).

⁹³ Resolution of the Court of Directors, March 25, 1819, Report, H.C. 1819, p. 262. Newmarch gives Sir George Rose's estimate of gold for 1798 as £40,000,000 (*History of Prices*, vi, 703).

⁹⁴ Drummond, *Elementary Propositions on the Currency*, 4th ed., p. 33.

⁹⁵ Morris, *Ev.*, H.C. 1848, qs. 3483-85.

⁹⁶ *History of Prices*, vi, 701-703. He estimated that the gold in the banks of the United Kingdom other than the Bank of England was not much less than £20,000,000, of which £5,000,000 was merely to satisfy the legal requirements of the issuing banks of Scotland and Ireland. Newmarch had undoubtedly made careful inquiry into the facts, but a ratio of £15,000,000 of till money to £50,000,000 in the hands of the remainder of the public seems far too great, and it is not in accord with what other witnesses have stated regarding the tendency of the banks to economize on the use of till money. Fullarton estimated the gold in the United Kingdom outside the Bank of England at £24,000,000 in 1844, less than £500,000 of which, he thought, was in the country banks (*Regulation of Currencies*, pp. 194, 220).

for 1857. Neave's estimates for the same periods were £45,000,000 and £50,000,000.⁹⁷

Let us summarize the salient features of the country banking system which would have a bearing upon the problem of control by the central bank. The issuance of notes and deposits was in the hands of several hundred banks. Though the number tended downward from 1810, there remained 429 separate firms in 1842. The larger portion of the country bank notes was probably held in the agricultural districts even in 1825 — at least an important part of the manufacturing districts did not use them — and by 1840 the great bulk of the notes was held in the agricultural districts. Until 1826 few Bank of England notes circulated outside the metropolitan area and Lancashire. From then on the use of Bank notes in the country increased, particularly in the manufacturing districts, while the notes of the country banks declined, relatively at first and absolutely after 1839.⁹⁸ By 1844 the Bank circulation in the country (excluding notes held by banks) was probably not a great deal less than the circulation of the country banks. Accompanying this increased use of Bank notes in the country there was also a decline in the use of bills as a circulating medium. But it should not be overlooked that bills readily discountable in London continued to satisfy the demand for liquid resources to *hold*, and substituted to no small extent for reserves in the form of cash. The use of bills for this purpose was deeply engrained in the habits of both traders⁹⁹ and bankers.

The classes of payments for which coin and notes were used were naturally more numerous than they were later in the century, but retail and wage payments constituted the bulk of them even then. The country banks issued their notes for the most part where they knew the money was to be used for local payments. Bills for large mercantile transactions were discounted with either bills on London, Bank of England notes, or deposit credits. Traders with large balances would not have wanted to hold them in the form of country bank notes. Nor

were they of course available for the larger portion of wage and retail payments (after 1829), which were for amounts under five pounds.

By 1844 the deposits of country banks far exceeded their note issues. Undoubtedly country deposits grew rapidly from 1825 to 1844 — partly at the expense of country bank notes and partly at the expense of bills — but they were probably larger in 1825 than has been commonly supposed.

A very large proportion of the demands which were made upon a country banker could be met with London funds, though some balances among banks were paid in Bank of England notes. As a result, the amount of gold and Bank of England notes held by most of the country banks was no greater than was required to meet the current demands of the public. And this amount was still further reduced for banks located near a Branch of the Bank of England, where till money could be obtained at a moment's notice. Consequently, a more favorable balance of payments with London did not cause a drain of cash to the country except to the extent that the requirements of the public increased. A condition of greater liquidity of the country banks was reflected in larger balances with London banks and bill brokers and in increased holdings of bills and government securities. And since the London banks paid no interest, there was a tendency to increase secondary reserves at the expense of bank balances.

The final result was that expansion of credit in the country required comparatively little increase of reserve in the form of notes and deposits of the Bank of England. However, severe pressure which impaired confidence caused the country banks to increase their holdings of gold and Bank of England notes, and also to shift from bills to London balances. And the London banks under such circumstances, fearing a drain, felt impelled to strengthen their reserves of notes and deposits of the Bank — mostly notes during this period.

2. *Restatement of the Theory of Control*

Silberling considers that the country banks were little controlled by the Bank of England. They redeemed to a large extent in drafts on their London balances — i.e., their reserves con-

⁹⁷ *Ev.*, 1857, qs. 117-125. Compare Feavearyear, *The Pound Sterling*, p. 294.

⁹⁸ The amount had been greater during the war but probably not since 1825.

⁹⁹ Thornton, *Paper Credit*, pp. 39-41.

sisted of balances rather than Bank of England notes. The London banks, which gave rediscounts to the country banks, could erect credits without any definite limit on almost no reserve at all. He is inclined, therefore, to agree with Wheatley that the Bank's issues, instead of governing those of the country banks, were in large measure dominated by them.¹⁰⁰ Angell also takes the view that the credit and note issues of the country banks were not controlled by the Bank. The idea that the London-country relationship was "unilateral" — i.e., that the Bank acted upon the country banks but was not acted upon by them in a similar manner — has in his view led to much confused thinking.¹⁰¹ Modern writers generally, with the notable exception of Jacob Viner,¹⁰² take the position that the country banks were very little under the control of the Bank.¹⁰³

¹⁰⁰ Norman J. Silberman, "Financial and Monetary Policy of Great Britain during the Napoleonic Wars," Part II, "Ricardo and the Bullion Report," *Quarterly Journal of Economics*, XXXVIII (1924), 399, 419-420. See also his "British Prices and Business Cycles, 1779-1850," *Review of Economic Statistics*, v (1923), 243.

¹⁰¹ J. W. Angell, *The Theory of International Prices* (1926), pp. 44, 52-53, 478-479, 490-491.

¹⁰² Viner considers that the lack of definite reserve proportions on the part of the country banks made control over them more difficult. But he believes that the Bank was in a position to reduce their cash when they threatened to expand too far by economizing it (*Studies in the Theory of International Trade*, 1937, pp. 154-165).

¹⁰³ See, for example, Feavearyear, *The Pound Sterling*, p. 223; S. E. Thomas, *The Rise and Growth of Joint Stock Banking*, vol. 1, *Britain: to 1860* (1934), pp. 58-64; and J. F. Rees, *A Short Fiscal and Financial History of England, 1815-1918* (1921). Rees practically adopts the view of Peel, that country banks ought to have been directly responsive to the foreign exchange, and that they were in fact responsive neither to the exchange nor to the measures taken by the Bank. At the time of Resumption, he states (p. 95), convertibility seemed a sufficient guarantee against overissue. "In the crises of 1825 and 1836-9 experience went to show that this belief was ill-founded. The banks were allowed to exercise their own discretion about the amount of gold they held against their issues, the obligation to cash their notes on demand being supposed to act as a check. But the country banks were tempted to expand their issues even when the state of the exchanges and the drain on the reserve of the Bank of England gave cause for anxiety. Failures had been frequent and disastrous. It appeared therefore that it was necessary to prevent the banks from indulging in an excessive issue of notes when a boom in trade presented them with apparently sound opportunities for advancing credit. For, if they went beyond a certain point, the convertibility of their notes was merely nominal."

This view of the weaknesses of the system is in keeping with what is perhaps the outstanding modern theory of the control of member banks by the central bank. I believe the chief tenets of this theory are as follows: (1) It is assumed (at least implicitly) that the proper measure of the result of a given monetary policy is the quantity of member-bank money. (2) As a condition to controlling the actual amount of member-bank money as precisely as possible, the member banks must seek to maintain constant reserve proportions; and (3) the central bank must have a close control over the aggregate of member-bank reserve money.¹⁰⁴ Judged by such tests the English country banks in the first half of the nineteenth century were under a loose control indeed. According to contemporary evidence, reserve proportions fluctuated a great deal. Furthermore, there was no possibility of the central bank's controlling the aggregate of country reserves since (a) the central bank issued its media both to the general public and to the banks, and (b) the country banks used for the most part other forms of reserve money than that created by the central bank.

Nevertheless, I believe that the country banks were under adequate control by the Bank. That the power which a central bank possesses

¹⁰⁴ See, for example, J. M. Keynes, *A Treatise on Money* (1930), II, 68-78, 225-233. Keynes's statement and supporting argument that the first necessity of a central bank "is to make sure that it has an unchallengeable control over the total volume of bank-money created by its Member Banks" (p. 225) do not seem to me consistent with his thesis in the chapter on "The 'Modus Operandi' of Bank-Rate" (vol. 1, ch. xiii). In this chapter other measures of results are considered more significant than the volume of bank money. But if the volume of bank money is not the most significant measure of results, why seek to control it so rigidly?

Lauchlin Currie, in his *Supply and Control of Money in the United States* (2nd ed., 1935, chs. vi, xv, and *passim*) states very clearly that his purpose in wanting to control reserves within narrow limits is to control the volume of deposit money within narrow limits.

It is interesting to note that the Committee on Finance and Industry, in keeping with the current view, have recently recommended that the provincial banks should be required to maintain reserve deposits with the Bank of England instead of with their London clearing agents, and that the reserve proportions should be regulated by the Bank. The Committee believe that "the power of the Bank of England to control the aggregate volume of credit in the country by means of open-market operations and other measures essentially depends on the rigidity of this ratio." (Report, 1931, pp. 157-160, esp. p. 160.)

to accelerate or retard commitments and expenditure rests upon its ability to set the conditions under which money is created is not open to question. But it does not follow that the most significant measures of results are the actual quantities of reserve money and member-bank money, whether in the form of notes or deposits. There are other gauges of the responsiveness of the banking and business structure to a given course of central banking action, and under some circumstances they are more significant. Modern theorists who seize upon a single criterion of inflationary and deflationary action make the same type of mistake as the Currency School, who judged of the responsiveness of the country banks solely by their circulation.

It is necessary at the outset to observe the importance of the financial center in the mechanism of control. The London banks were, with some qualification, a self-contained system. The country banks were not *coördinate* with them but a distinct system *subordinate* to them. A relaxation of credit by the London banks did not cause them to lose reserve money in favor of the country banks as it would have done if they had all been *coördinate* members of a system. The country banks allowed their increase of liquidity for the most part to take the form of deposits created by the London banks and open-market paper.

There were, however, possibilities of some losses of reserve cash in favor of the country. Let us consider the more important of these.

(1) To the extent that the expansion in London led (indirectly) to an increase of the requirements of the public in the country for Bank of England notes and coin, the London banks would lose reserve money. However, since the country banks could expand their own circulation to take care of part of this demand (i.e., for notes of five pounds and over in the agricultural districts and to some extent in the commercial districts), the drain from this cause was lessened.

(2) The country banks could vary their till money, which of course tended to change London reserves in the opposite direction. They were not likely, however, to increase their till money when credit was relaxing in London except to the very moderate extent that increased

trade activity increased the volume of counter payments or clearing payments made in Bank notes. Any sudden increase of till money would be the result of contraction, and any marked reduction would be the result of improved confidence in the business situation. Thus the change in the country banks' preferences for till money as against balances or liquid securities would tend to cause them to move in the same direction as London. It might in fact amplify a given impulse from London.

But I should minimize the importance of variations of the country banks' holdings of Bank notes and coin. In the first place, the till money was small in amount except in the case of threatened panic. Of greater significance is the fact that the Bank's actual procedure was not to fix the circulation at some predetermined level. As I shall attempt to bring out in later chapters, the reserves of the London banks were adjusted to requirements semiautomatically and changes in the holdings of Bank notes and coin by the country banks were small in comparison with the many sources of loss and gain to the reserve position in the financial center.

Conceivably the country banks as they became more liquid might have decided to shift reserve deposits from London private banks to Branches of the Bank. It was also possible for country traders to make a similar shift. But there is no evidence that net transfers of appreciable amounts over short periods actually were made.

It has often been stated that the country banks could defeat restrictive action by the Bank by expanding their circulation at the expense of Bank notes in the country and so enlarging the reserves of the London banks. There is no statistical evidence that this actually occurred, and *a priori* I see no reason why the banks should be able to extend their circulation *in consequence* of a contraction by the Bank, or find it necessary to contract their issues in consequence of an expansion by the Bank.¹⁰⁶

(3) To a certain extent, borrowing at the Bank by the country was alternative to borrowing by London. If, when credit was relaxed in London, the country banks or their customers

¹⁰⁶ This point is discussed in detail in the next chapter.

were in debt at the Bank Branches, they would tend to reduce those debts with cheap London money. Consequently, London discounts at the Bank would tend to increase (or their repayment to be retarded) or the reserve position of London banks be weakened, in either of which case the relaxation of credit in London would be checked. Conversely, a tightening of credit in London would tend to be offset in part by an increase of country borrowing at the Bank Branches, which would supply fresh reserves to London.

With these exceptions the relaxation of credit by London improved the liquidity of the country banks *without* reducing that of the London banks, while a contraction deprived the country banks of what to them was reserve without causing any gain in cash to the London banks. That is to say, the credit superstructure of the country rested upon that of London, which in turn rested upon the Bank of England.

Let us suppose a contraction of credit by the Bank. The terms of credit would be stiffened by the London banks and bill brokers. The country banks would be required to move in the same direction, for if they did not they would gain bills at the expense of London balances and bills less readily negotiable at the expense of bills quickly convertible into cash in the London money market. That is to say, traders and manufacturers usually discounting in London would tend to turn toward the country. Country banks in the agricultural districts were normally buyers in the London bill market; those in the manufacturing districts were normally sellers. The former (assuming a refusal to follow the lead of London) would tend to buy more and the latter tend to sell less. But as this tendency would impair the liquidity of the country banks, they would be quickly forced to move in the same direction as London.

In the meantime there would be a contraction of outlay by London traders. Here we have a *direct* cause of a contraction of outlay in the country. We do not need to assume that the contraction in the country was brought about chiefly by the country banks. Markets in the country were directly sensitive to those in London. Moreover, an important margin of traders' indebtedness in the country was financed in London and was directly sensitive to the

London bill rate. But, in so far as outlay in the country did not contract fast enough, the liquidity of the country banks would be impaired, so that by this route also they would be forced to keep in step with the contraction in London.

Those who consider that the only adequate measure of results is the amount of bank money, and that the only way to insure the proper reduction of it is to have unquestionable control over reserves (along with fixed reserve proportions) would object to this view of member-bank control as loose and indefinite. The answer is, first, that the real aim should be the contraction of outlay. The country banks could safely create such notes and deposits as the public demanded so long as their doing so did not interfere with the appropriate contraction of outlay. It was a common practice for traders to hold bills as a form of reserve, and in periods of pressure they would want to shift from bills to balances as a precautionary measure. Meeting an extra demand of this sort would not be inconsistent with the appropriate contraction of outlay.

Secondly, the objection presupposes that the member bank under the modern English or American system pays attention almost exclusively to that portion of its cash resources which is subject to regulation or rigid convention, whereas it is its condition of liquidity as a whole which influences it to expand or contract. Reserve cash which serves no other purpose than of meeting rigid reserve requirements is so much subtracted from liquid resources. The liquidity of provincial banks depends fundamentally upon credit conditions in the financial center. By causing a contraction in the financial center the central bank makes it more difficult for the customers of the country banks and for the country banks themselves to maintain a proper condition of liquidity.

Undoubtedly the willingness of the country banks to vary their *liquidity as a whole* would render them somewhat less sensitive to credit conditions in London; though this is a characteristic of provincial banks under any system of regulations. But I do not believe that a change in the country banks' liquidity preference could give them any appreciable degree of independence. The mass of transactions between London and the provinces was so great

that a contraction of outlay in London leading to a shift in the balance of payments of small order of size would nevertheless be of large order in relation to the liquid resources of the country banks. Any disposable margin would be rapidly absorbed.

Nor would a variation in the country banks' preference for London reserve balances — as against a variation of general liquidity preference — have had any special significance. A willingness to get along with smaller balances would only have reduced the reserve requirements of the London banks to a slight extent or added a relatively small amount to traders' balances. The London banks would have gained no cash from the proceeding.

In this brief statement the technical difficulties connected with the Bank's control over the money market have had to be ignored. They will be considered in detail in Chapters V–VIII.

I conclude that the country banks were not in a position to pursue a policy contrary to that of the Bank of England. The monetary difficulties from which the country suffered are to be attributed partly to the failure to master the art of central banking by those in control, but to a greater extent to weaknesses inherent in the international standard of the period. The rather general condemnation of the country banking system by modern critics is, I believe, due fundamentally to their failure to appreciate the part played by the financial center in the machinery of control. Believing that efficient control is essentially control over the quantity of bank money, they suppose that it is necessary for all member banks to be related directly to the central bank through reserve requirements and through their holdings of central-bank money. The mistakes of the contemporary critics were somewhat different, but they were essentially of the same order.

CONTROL OVER THE COUNTRY BANKS: CONTEMPORARY THEORIES

LOGICALLY, the first problem in the contemporary theory of the control exerted by the Bank of England over the country banks is the question of how far the country circulation competed with the Bank circulation. Further questions concerning the Bank's control could scarcely arise unless it were found that the country banks were limited to some extent in serving as a source of money.

From the discussion of this first problem we shall turn (in section 2) to the theories of the nature of the Bank's control. The principal questions arising here are (a) the kind of equilibrium which the country banks were supposed to enforce — whether of prices, interest rates, or reserves as such; (b) the importance assigned to London as the focal point in control; and (c) the extent to which the influences of the gold-standard world were supposed to act through the Bank.

Finally, we shall consider the theories of those who asserted that the country circulation was governed only by the demands of the public, that the Bank influenced the advances of the country banks but that such operations were without monetary significance. The critics of this view, we shall find, instead of pointing to the monetary implications of the country banking operations as a whole, seized upon the circulation as the sole measure of the country banks' responsiveness.

1. *Did the Country Circulation Compete with the Bank Circulation to the Point of Impairing Control?*

Those who argued that the country circulation was a superstructure resting upon the Bank circulation early realized that they must show that the competition between the two kinds of issues was limited. Thornton, for instance, pointed out that if, when the Bank contracted, a supply of Bank notes came from the country

— an increase of country notes taking their place in the country — control would break down. But he reasoned that, though the Bank's notes did not circulate over any definable area outside of London, an increase of the country circulation would not come about *as a consequence* of a contraction by the Bank.¹

Ricardo followed Thornton's reasoning.² Replying to a question by Cobbett — "Does this writer imagine, that the country-bankers would not make money to supply the place of any reduction at the Bank of England?" — Ricardo stated that the country banks would have to call in as many of their notes as the Bank, if not more.³ Later he stated that both the country banks and the Bank contended to fill as many districts as they could with their respective notes. But his inference seemed to be that the competition might prevent a proportionate variation in the two kinds of issues and not that a *general* contraction by the Bank would permit the country banks to expand.⁴ Before the Committees on Resumption it was generally held that a contraction by the Bank would not afford the country banks an opportunity to enlarge the sphere of their circulation but would force them also to contract.⁵

It was clearly recognized, however, that any discredit of the country bank notes would lead to their partial displacement by Bank notes

¹ *Paper Credit*, pp. 229-230. Any sudden and severe contraction in London, he claimed, would *increase* the demand for Bank notes and gold in the country.

² The Bullion Committee followed the same reasoning implicitly (Report, 1810, p. 28).

³ *Three Letters on the Price of Gold Contributed to the Morning Chronicle (London) in August-November, 1809*, edited by J. H. Hollander (1903). See the letter of Sept. 20, 1809, p. 19. Cobbett's statement is given by the editor, p. 28.

⁴ *Ev.*, H.C. 1819, p. 134.

⁵ For example, see Samuel Gurney, *Ev.*, H.C. 1819, p. 174; Stuckey, *Ev.*, H.C. 1819, p. 246; Second Report of the Commons Committee, H.C. 1819, pp. 19-20.

(and that an improvement in their credit standing would lead to their reissue). The Committee on the Outstanding Demands of the Bank claimed that the difficulties of the country banks from 1793 to 1796 had caused more Bank notes to be used in the country.⁶ Thornton stressed the point particularly that a sudden restriction by the Bank would cause an increased demand for gold and Bank notes in the country because of the discredit of the country bank notes.⁷ Alexander Baring, though agreeing that the Bank had a certain measure of control, held that the small notes of the Bank varied in the opposite direction from the country notes⁸ (which were mostly in denominations of £1 and £5). In noting the general view that a contraction by the Bank would be speedily followed by a contraction by the country banks, the Commons Committee in 1819 stated that it was nevertheless obvious that, independently of any action of the Bank, the country circulation was liable to sudden contraction from discredit.⁹

It is clear, however, that these statements did not imply that the country banks could follow an independent course of action. This was the main question, and not whether as a matter of fact the two kinds of notes always changed in the same direction and proportionately.

The question whether the country banks could defeat restrictive measures of the Bank by extending their circulation became prominent again following the panic of 1825. Aside from the general question of the country banks' ability to act independently, there was the question whether they were able to do so in the special circumstances of the period 1822-1825. The Government, it will be recalled, after deciding in 1819 to stop the issue of country bank notes under £5 in 1825, decided in 1822 to prolong the period of issue to 1833.¹⁰ A member of the Bank Charter Committee claimed that the reissue of small notes (following the exten-

sion of the privilege) drove gold from the country to London where it tended to expand credit.¹¹ Drummond¹² and Palmer¹³ claimed that the extension of the privilege was a large factor in the country bank expansion.

Tooke,¹⁴ on the other hand, pointed out that the law suppressing the small notes had not come into operation when the privilege was extended in 1822. Moreover, following the opinion of Burgess, he contended that the country circulation declined from April (when the intention of the Government was announced) until the close of 1822, and that there was no large increase from 1823 to 1825. Tooke's argument seems convincing. There is no reason to suppose that the country banks would want to stop issuing their small notes several years before the law became effective. Nor does the change in the amount of notes stamped in 1822 and 1823 support the view that the extension of the privilege for small notes caused any appreciable increase in their issue. In the preceding chapter I have given reasons for believing that Sedgwick greatly overestimated the increase of the country circulation from 1823 to 1825.

The impairment of confidence in the country banks accompanying the suspension of about eighty of them¹⁵ during the panic of 1825 was an important cause of the internal drain of gold and Bank notes and thus aggravated the panic. The extent, however, to which the drain as a whole (for Bank notes and coin taken together) was due to the discredit of the country banks and particularly of their £1 notes has, I believe, been exaggerated. It is probable that the drain of gold alone was heavily influenced by the discredit of the £1 notes,¹⁶ but it was

⁶ Third Report, H.C. 1797, p. 9.

⁷ *Paper Credit*, p. 230.

⁸ *Ev.*, H.C. 1819, pp. 186, 201.

⁹ Second Report, H.C. 1819, pp. 19-20. Ricardo also noted that amounts of the two kinds of issues in circulation would be affected by the credit standing of the country notes (*Ev.*, H.C. 1819, pp. 134, 139).

¹⁰ *Correspondence between His Majesty's Government and . . . the Bank*, P.P. 1822, (316), XXI.

¹¹ *Ev.*, 1832, qs. 3064-69.

¹² *Elementary Propositions on the Currency*, 4th ed., p. 62.

¹³ Memorandum following his evidence, 1832.

¹⁴ *History of Prices*, II, 114-115, 118, 128-131. Tooke and most others placed the first date when the issue of country small notes should cease at 1823. Palmer placed it at 1825. See memorandum following his evidence, 1832.

Tooke, it may be noted, criticized the extension of the privilege in 1822 as "very weak and foolish" (II, 114).

¹⁵ Palmer stated that, of the eighty private banks which suspended during the panic, perhaps fewer than ten proceeded to bankruptcy (*Causes and Consequences of the Pressure upon the Money-Market*, p. 46).

¹⁶ Cf. Palmer, *Ev.*, 1832, q. 620, and memorandum appended to his evidence.

influenced also by the demands of depositors and all others who desired to add to their reserves of coin. The withdrawals of gold and £1 Bank notes were not so large as one might suppose from reading the discussions of the period. The reduction of the Bank's bullion on all accounts from November 26 to December 24 was only £1,985,200,¹⁷ and the increase of Bank of England small notes from December 10 to December 31, which was at the height of the panic, was only £852,350. On the other hand, the (nonseasonal) increase of Bank notes of £5 and over from December 10 to December 31 was £6,396,200.¹⁸ It is of course impossible to estimate the proportion of this amount which went to localities where the country notes circulated, but the increased demands of London and Lancashire, where country bank notes were not used, must have been large. Everything considered, I believe that the causes of the internal drain were more general than has commonly been believed. It is true of course that the demand for gold was far more serious than the demand for Bank notes, since the reduction of the bullion reserve was what provoked the severe measures by the Bank. But it is important to remember that the reserve was already dangerously low and that the Bank was refusing to discount before any serious runs on the country banks began.¹⁹ Their weakness was the last straw.

The alleged large increase of the country circulation during the period 1822-1825 and its partial discredit during the panic, instead of being treated as owing to special circumstances, were made the basis for the argument that the country banks were generally able to expand despite restrictive measures of the Bank, and that their notes after having financed speculation were liable to become discredited during the "inevitable reaction" and cause another panic.²⁰ It was now claimed that the two kinds

of issues competed to the point of impairing control. And since the Bank had established country Branches, whose circulation was gradually increasing, the argument appeared more plausible.

McCulloch, for example, stated that there was no doubt that an overissue of the provincial currency, if general, would render the currency of London redundant, for it would contract the sphere of circulation of Bank paper in the country and force it back upon its issuers.²¹ Palmer and Raikes (the Governor and Deputy Governor of the Bank) wrote to the Government that the Court were impressed with the belief that one of the evils of the system was the collision of the country issues with those of the Bank.²² Following the pressure of 1837, Palmer claimed that the joint stock banks had recently thwarted the contraction by the Bank.

throughout the country; (2) to establish Branches of the Bank; and (3) to permit joint stock banks of issue outside the London area. The object of the last two proposals was to improve the quality of the paper used in the country. (Communications between the Government and the Bank, P.P. 1826, (2), XIX.)

Smart reviews the discussion in Parliament regarding the country banks' connection with the panic (*Economic Annals of the Nineteenth Century*, pp. 339-348). Canning and Peel on the whole defended the country banks at this time. They pointed out that no country notes circulated in London and Lancashire, which contained two thirds of the wealth of the nation. David Robinson, writing in *Blackwood's*, also defended the country banks against the charge of having caused the panic (see his articles "Public Distress," vol. XIX, 1826, and "The Country Banks and the Bank of England," vol. XXII, 1827). At the Bank Charter inquiry Harman and Samuel Gurney denied that the country banks had caused the panic (Ev., 1832, qs. 2298, 2330, 3763). Thomas, however, believes that the country banks greatly enlarged their issues *pari passu* with their discounts. He blames them for increasing their issues without a larger metallic reserve—they had not the same excuse as the Bank, which held a large amount of gold. He supposes that the country banks ought to have considered themselves charged with a public responsibility for the regulation of credit. Implicitly he adopts the view common among those of the era about which he writes: that a period of boom inevitably leads to a reaction and that any well-informed person should have foreseen the panic. He speaks of the collapse as "inevitable," though at a later point he states that the panic vanished "like a dream" when the Bank again discounted freely. (*The Rise and Growth of Joint Stock Banking*, pp. 53-63.)

²¹ *Historical Sketch of the Bank of England* (1831), pp. 42-43.

²² Correspondence and Minutes on the Subject of the Renewal of the Bank Charter, P.P. 1833, (352), XXXII.

¹⁷ Report, 1832, app. 28 and 88.

¹⁸ Report, 1832, app. 83. See also Chart VII in the Appendix, below. There was a further increase of small Bank notes to April 1, 1826, of £344,980.

¹⁹ Cf. Feavearyear, *The Pound Sterling*, pp. 220-221.

²⁰ Liverpool and F. J. Robinson (the Prime Minister and Chancellor of the Exchequer) held that the principal cause of the panic was the rash speculation fostered by the country banks. As a remedy they proposed (1) to suppress the £1 notes with the aim of establishing a gold circulation

He doubted whether the joint stock banks of issue and the Bank could permanently exist together.²⁸ It is interesting to observe, however, that at the inquiry in 1848, when the matter was no longer a live question, he told Peel that it was immaterial whether the country banks were permitted to issue without restriction, provided their notes were adequately secured.²⁴

Loyd was moderate in his criticism of the country issues in his *Reflections* on Palmer's pamphlet. He doubted whether they were "utterly beyond the control of the central issuer," though he thought they might expand temporarily in the face of a contraction by the Bank.²⁵ But in his *Second Letter to J. B. Smith* he stated that the country banks were wholly responsible for the expansion of 1835-36, and quoted approvingly the Report of the Secret Committee of 1836 to the effect that the country banks might thwart attempts of the Bank to control the circulation.²⁶ In his *Remarks on the Management of the Circulation* he criticizes the view expressed before the Resumption Committee to the effect that the Bank circulation controlled the country circulation. The paper issues of different districts, he states, are not analogous to those of separate countries. On the contrary they are "competing issues," since an important portion of the Bank's notes circulates in the country. Where the issuers compete, a void in the currency caused by one may be made up by the expansion of another issuer. When the Bank contracts, the effect is felt principally in the immediate vicinity, but some scarcity is felt in the country. The country banks meet this scarcity in the first instance

not by contracting but by expanding.²⁷ Later, when in common with all other parties they are compelled to follow the lead of the Bank, their contraction is all the more rapid. He presents figures to show that when the Bank contracted between September 1834 and June 1836 the country banks expanded. These figures, however, do not indicate that the country bank circulation *displaced* the Bank circulation, for the circulation of the Bank Branches also increased during the period.²⁸

Drummond, Peel, and Torrens also claimed that the competition of the country issues prevented control by the Bank.²⁹ Torrens contended that the Bank should supply all or none of the circulation for the country. Even Hobsbawm, who denied that the notes of the private banks competed with those of the Bank, stated that those of the joint stock banks had displaced Bank notes from £1,200,000 to £1,300,000.³⁰ Tooke thought that the country bank circulation had not in fact interfered appreciably with that of the Bank, but that it might do so in the future.³¹

²⁴ *Remarks on the Management of the Circulation; and on the Condition and Conduct of the Bank of England and of the Country Issuers, During the Year 1839* (1840), Tracts, pp. 93-109. Norman's position was similar in 1832 (Ev., 1832, q. 2571). In 1840 he added that the country notes interfered with the London circulation because the country banks would sell securities in London to discharge their notes, thus producing a contraction in the London market (Ev., 1840, q. 2630).

²⁵ Taking monthly averages of weekly figures, the country bank circulation increased £1,504,000; the Bank circulation in London contracted £1,586,000; and the circulation of the Branches increased £239,000.

²⁶ Drummond, *Causes Which Lead to a Bank Restriction Bill* (1839), pp. 18-20; Sir Robert Peel, *Speeches . . . in the House of Commons, May 6th and 20th, 1844, on the Renewal of the Bank Charter* (1844), pp. 68-71; Robert Torrens, *A Letter to the Right Honourable Lord Viscount Melbourne, on the Causes of the Recent Derangement in the Money Market, and on Bank Reform* (1837), pp. 53-54. (But compare p. 48. Torrens attributes the competition of the two kinds of notes to the establishment of the Bank Branches.)

²⁷ Ev., 1841, qs. 49-56.

²⁸ *History of Prices*, III, 194-197. He therefore suggested that it might be desirable to suppress the country issues, his object being to compensate the Bank for maintaining a larger reserve as well as to give it more effective control over the circulation. His reasoning at this point as to the manner in which the country banks could compete with the Bank in extending their circulation was essentially the same as the reasoning of the Currency School: that it was by offering to lend at a lower rate than the Bank.

²⁹ *Causes and Consequences of the Pressure upon the Money-Market*, pp. 46-50.

³⁰ Ev., H.C. 1848, qs. 1966-71. Palmer now states also that he doubts whether it is possible to control the Bank circulation, since what the public require they will have. Whether the change in his attitude in this respect accounts for his indifference toward limiting the country circulation is not certain. Possibly his extreme dislike for the Act of 1844 affected his view.

³¹ *Reflections Suggested by a Perusal of Mr. J. Horsley Palmer's Pamphlet on the Causes and Consequences of the Pressure on the Money Market* (1837), reprinted in Loyd's *Tracts and Other Publications on Metallic and Paper Currency*, edited by J. R. McCulloch (1858), pp. 15-17.

³² *Effects of the Administration of the Bank of England: A Second Letter to J. B. Smith, Esq.* (1840), Tracts, pp. 196-223.

It is not unreasonable to suppose that the willingness of the public to use country bank notes might have fluctuated to such an extent as to constitute a problem for the central bank. An increase of the country notes at the expense of Bank notes would of course have tended to increase the reserves of the London banks. But there is no evidence that there actually was a problem of this kind (or the reverse) during the period for which the necessary data are available (beginning 1833), and, excepting only the discredit accompanying the panic, I do not believe that there was such a problem during the 'twenties.

Clearly we can not determine whether the country bank notes *displaced* Bank of England notes by following changes in the totals of the two kinds of issues; for Bank notes circulated mostly in London, and even those in the country were used partly as till money by the country banks. If we are to make a comparison we should use, instead of the total circulation of the Bank, the circulation of the Branches. At no time during the period 1833-1847 did the country bank circulation rise appreciably when the Branch circulation fell; though during a few periods, such as 1837-1839, it rose more rapidly than the Branch circulation. What impresses one most is the gradual rise of the Branch circulation at the expense of the country bank circulation. For answering the specific question whether the country bank circulation displaced that of the Branches over short periods, even this comparison is not altogether satisfactory, since, in addition to the fact that the Branch notes were used partly as bank till money, the country bank notes circulated largely in the agricultural districts, whereas the Branch notes were used more largely in the commercial and manufacturing districts. Nevertheless, taking such a comparison as the best available evidence, it does not point toward any noticeable displacement of the Bank issues by the country issues at any time.

Regardless of whether there was any appreciable displacement of one kind of issue by the other in a given community, the question remains: Were the variations in the demand for Bank notes in the country inconveniently large, and were they larger than they would

have been if the country bank issues had been fixed? When we place the variations in the demand for Bank notes in the country in juxtaposition with all other factors tending to affect the reserve position of London banks they seem small indeed. Also they appear obviously smaller than they would have been (assuming business fluctuations to have been the same) if the country issues had been fixed. It is true that, if the additional currency required by the public had had to come from the Bank in periods such as 1835-36 and 1838-39, the Bank would have had an additional lever on the market, but the Bank was not lacking in means of control at those periods, since the market was already heavily in debt to it.

In the single instance of the discredit of the country banks in 1825-26, a contraction of their issues greatly added to the problem of relieving the panic, considering the methods used. It should be observed, moreover, that the discredit did not arise until after the Bank refused discounts, which made it difficult or impossible for the country banks to convert good bills and government securities into cash and placed their London correspondents in difficulties.⁶⁸ Furthermore, there was nothing to prevent the Bank from issuing £1 notes sooner than it did.

We may conclude, therefore, that the sphere of circulation of the country bank notes did not change rapidly enough to constitute a serious problem for the Bank except during the panic of 1825, and that even then the difficulty was due to the delay in the Bank's issuing £1 notes.

The criticism to be made of Loyd is not merely that he exaggerated the extent to which Bank notes circulating in the country and country bank notes moved in opposite directions, but that he reasoned that the country banks could expand as a *consequence* of a general contraction of the Bank. He supposed that the contraction would be almost immediately followed by a reduction in that portion of the Bank's issues which circulated in the country. This was not the fact. And even on a *priori*

⁶⁸ According to Tooke, there was a severe run on several London banks, of which three or four besides Pole and Company suspended (*Considerations on the State of the Currency*, 1826, p. 58).

grounds there was no reason to believe that the public would be more willing to use country bank notes because credit was more difficult to obtain at the Bank — or, to use his own criterion of contraction, because the aggregate circulation of the Bank was less.

2. *The Nature of the Bank's Control over the Country Banks*

The idea that the country circulation was a superstructure resting upon the Bank circulation was probably a product of the Suspension of Cash Payments. The writers of the Restriction period, observing that Bank notes were the ultimate money of redemption (even though not formally legal tender), sought to explain the mode by which the country circulation was controlled so that it was maintained at the same value as the Bank circulation.³³ Now it was apparent that the connection between the Bank circulation and the circulation of the country banks was not direct, for the country banks dealt directly with the London private banks and maintained no considerable reserve of Bank notes. So the idea was developed that the Bank indirectly governed the paper of the country by virtue of its control over prices in London. The country banks, it was said, being under the necessity of meeting all demands which were made for London money, had to regulate the issues in their district in such a way that prices would be in equilibrium with those in London. We can not, of course, be positive to what extent they reasoned that the only source of an unfavorable balance with London was a disequilibrium of prices. But they seemed to reason as if that were the only source worth mentioning.

Somewhat later, other kinds of equilibrium which the country banks must maintain were given more attention. It was pointed out that interest rates in the country must bear a certain

relation to those in London. Also, the idea that the country banks must maintain an equilibrium of reserves — that there was a demand for reserve as such — was developed to a certain extent; though the great emphasis upon the necessity of satisfying conventional reserve requirements is more modern.

With the Resumption of Cash Payments the idea that the country circulation was a superstructure resting upon the Bank circulation was not altogether lost, but it was emphasized distinctly less. Many writers apparently believed that adherence to the gold standard had somehow fundamentally altered the mechanism of internal control. Logically one would have expected the new version to be that the discretion of the Bank was limited by the requirements of the foreign exchanges. Instead, they reasoned as if the credit superstructure of the country banks rested upon gold directly. Though it was generally recognized that gold affected the country banks through the London banks, I do not believe that the theoretical implications of London's position were as much appreciated as they had been during the Restriction period. The Currency School held that under a properly regulated system the country banks would feel the effect of the foreign exchanges directly. One of the important objectives of the Select Committee of 1841, for instance, was to determine whether the country banks regulated their issues by the foreign exchanges.

Let us consider the theories in more detail. Through a monopoly of the note issue in London, said Thornton, the Bank could control the issues of the Kingdom. He did not assume that this control depended upon the use of Bank notes as reserve by the country banks, for he had already pointed out that a country banker had only to provide himself with a credit with his London correspondent, government securities, or bills discountable in London.³⁴ The Bank, he reasoned, controlled prices in London, and the country banks had to regulate their issues so that prices would be in proper relation to those in London or they would have an excessive demand for bills on London.³⁵

This reasoning was approved by Francis

³³ The Bullion Report, for instance (P.P. 1810, III), states that "so long as the Cash payments of the Bank are suspended, the whole paper of the Country Bankers is a superstructure raised upon the foundation of the paper of the Bank of England" (p. 18; my italics). Thornton, however, pointed out that the Bank circulation governed the country circulation before suspension "exactly in the same manner as it has done since that event." The exchanges affected the country banks only indirectly (*Paper Credit*, pp. 231-233).

³⁴ Ev., H.C. 1797, p. 80.

³⁵ *Paper Credit*, pp. 216-221, 233, 247.

Horner in his review of Thornton's book. In a classic passage interpreting Thornton, he says:

If a particular country banker is imprudent enough to issue an extraordinary quantity of paper, while that of the Bank of England does not exceed the demands of London circulation, a local rise of prices will be produced within the district of that country paper, but prices in London will remain as before. In this situation, the holders of country paper, in order that they may purchase goods where they are cheaper, will return that paper to the banker, demanding in return Bank of England notes, or at least bills upon London. The excess of his notes will thus be continually returned upon the country banker, and he will at length find himself under the necessity of limiting his issue to that quantity, which the circulation of his own district can absorb. The quantity of Bank of England paper may thus be said to regulate the quantity of that which is issued by the country banks.⁴⁰

The Bullion Committee, of which Thornton and Horner were members, followed this view.⁴¹

Ricardo also had much the same theory in mind, but in his letter to the *Morning Chronicle* he stated that the country banks were obliged to redeem in Bank of England notes.⁴² This form of statement could be interpreted to mean that the country banks regulated their issues according to the state of their reserves in the form of Bank notes. Charles Bosanquet apparently interpreted the view of Ricardo and the Bullion Committee in this way, though the Bullion Report, which he was criticizing particularly, stated that the country banks must redeem in either Bank notes or bills on London.⁴³ The country banks, Bosanquet argues, regulate their issues according to the assets they have in London with which to pay them, and without much reference to the quantity of Bank notes in their till. "What is there in this evidence to sanction the opinion, that bank notes either generate or limit country notes?" Ricardo replies that there is no material difference whether the country banker pays in Bank notes or in bills on London. In the latter case his deposit in London which he considers necessary for the safety of his establishment is reduced, and he is required just as effectively to

restrict.⁴⁴ It is the relatively high prices in the country which cause the demand for bills on London and this demand can not be abated without restricting the amount of notes in the country.

It is evident that Thornton, Ricardo, and their contemporaries did not conceive of the problem as one primarily of maintaining proper reserve ratios.⁴⁵ Though they stated that the country bankers must maintain London balances (and quickly convertible securities) at a level consistent with the safety of their establishment, they thought of these reserves merely as working reserves, the size of which *per se* was not important. The equilibrium which they thought it necessary to restore was a *price equilibrium*; the loss of reserve was only a symptom. They considered that a failure to maintain price equilibrium would quickly impair the liquidity of the country banks, regardless of what it might be to begin with.

This belief that a disequilibrium would be registered in a change in price relationships between London and the country was the weakness in their theory. There would scarcely be a time sequence between the movements of prices in the two areas except for differences in the types of markets.⁴⁶ A lack of liquidity of the country banks was a symptom of a relatively excessive *outlay* by the country, including outlay in London; and the cure for it, in so far as it lay within the power of the country banks to bring about a readjustment, was a contraction of outlay. However, I do not regard this mistake as of major importance. They were correct in their main contention: that the country banks must maintain equilibrium with London, whereas the Bank could govern credit in London without effective intervention from the country.

⁴⁰ *Reply to Mr Bosanquet's Practical Observations on the Report of the Bullion Committee* (1811), ch. vii. Bosanquet's statements are quoted by Ricardo. See especially pp. 129-130, Gonner edition of *Essays*.

⁴¹ However, compare Viner, *Studies in the Theory of International Trade*, p. 158. It may be noted that Ricardo, in order to meet Bosanquet's argument, included the country banks' government security holdings in the same category with their Bank notes and London balances (*loc. cit.*).

⁴² Thornton in fact stated that a local rise of prices would be checked while still scarcely perceptible (*Paper Credit*, pp. 217-219).

⁴³ *Edinburgh Review*, vol. 1, p. 190 (October 1802).

⁴⁴ Bullion Report, P.P. 1810, III, 28.

⁴⁵ *Three Letters on the Price of Gold* (letter of Sept. 20, 1809), p. 19. This seems to be implied also in *The High Price of Bullion*, Gonner edition of *Essays*, p. 32.

⁴⁶ Bullion Report, P.P. 1810, III, 28.

The idea that the central bank, in order to compel the country banks to move in a given direction, must act through the financial center was an important contribution. We can not be certain, however, whether the general theoretical importance of the idea was fully appreciated or whether it was supposed to be applicable only to the case of a depreciated paper currency.

Joplin, in his earlier writings, follows the view that the kind of equilibrium which the country banks must maintain is an equilibrium of prices.⁴³ He also retains the idea that the influences bearing upon the country banks operate through the financial center.⁴⁴ However, England being now on the gold standard, he does not say that prices in London are governed by the Bank. The power of the Bank seems to be merely that of moderating the effect of gold movements.

In his later work Joplin seems to consider that the equilibrium which the banks must maintain is one of reserves to notes and deposits. Following Pennington, he explains how the London bankers "are enabled upon a deposit of any sum in gold or Bank of England notes, to create five times its amount in bank money," and then how this increase of London deposits leads to a "second new creation of money in the country."⁴⁵ Passages such as these clearly imply that member-bank money is governed by the quantity of reserve together with the reserve proportions.

But Joplin denies that the country circulation is governed either by the Bank or by the foreign exchanges.⁴⁶ Directly, he states, the

quantity issued reflects the relation between the "economy" and "expenditure" of the country. By this he means concretely that the state of confidence and degree of enterprise affect the volume of loans and through the latter the amount of the country circulation.⁴⁷ He believes that the possibility of multiple expansion and contraction causes the banking system to be inherently unstable. It is to prevent the multiple expansion as far as possible that he proposes that notes should have a gold reserve of 100 per cent (or what he regards as the equivalent).⁴⁸

Detailed criticism of Joplin seems unnecessary. Much of his argument is hopelessly confused. However, his views in many respects exemplify the transition from the theories of control prevalent in 1819 to those which were common in the middle of the century, particularly among those who favored the Currency Doctrine.

Pennington gave an excellent description of the credit machinery through which the Bank operated to produce such effects as it could, but it was not for the purpose of showing that the Bank had a close control over the country banks. Rather it was to support Tooke's argument that "country bank notes, private paper, and credit, are susceptible of considerable increase or diminution, without a corresponding enlargement or contraction of the basis on which they rest."⁴⁹ He first explains how the London private banks, as a system, can create deposit credits on the basis of a reserve of coin and Bank notes in a manner similar to the issuance of notes. He then explains how the country circulation is in turn dependent upon this "money created by the London bankers."⁵⁰ He does not assume, however, that the bankers (in either London or the country) have approximately constant reserve proportions, but that they vary

⁴³ "Not only must the currency of the kingdom, and its scale of prices, be at that level, which will bring its trade to a balance in commodities with foreign nations, but the currency and prices in each county must bear that proportion with the rest, which shall bring its trade with them to such a balance; and, when any inequality takes place, an internal balance of payments must arise, by which to adjust it" (*Views on the Currency*, 1828, pp. 155-156).

⁴⁴ "A banker's funds in London," he states, "are to him consequently, what gold is to the bank of England." Joplin proceeds to explain how all balances can be settled with bills on London (*Views on the Currency*, pp. 154-157).

⁴⁵ *Currency Reform* (1844), pp. 38-46, 57. Compare, however, the statement (p. 74) that deposits are local money "created by the public rather than by the bankers."

⁴⁶ *An Examination of the Report of the Joint Stock Bank Committee* (3d ed. 1837), pp. 54-57.

⁴⁷ *Currency Reform* (1844), pp. 24-28.

⁴⁸ *An Analysis and History of the Currency Question* (1832), pp. 163-166, 172; *Currency Reform*, pp. 61-84.

⁴⁹ Paper by Pennington in appendix to Tooke's *Letter to Lord Grenville* (1829), p. 117.

⁵⁰ *Ibid.*, p. 117 *et seq.* In a later communication to Tooke, Pennington shows that the London banks can use as reserve deposit credits at the Bank as well as Bank notes (*History of Prices*, II, 377-378). For further discussion of this point, see Chapters III and XI below.

materially.⁵¹ During periods when prospects are good, he states, bankers are willing to allow reserves to get relatively low in order to increase securities, whereas in periods of distrust they are anxious to increase reserves.⁵² Nevertheless, such control as Pennington supposes to exist operates through the necessity of maintaining an equilibrium of reserves to notes and deposits.

In view of Pennington's apparent understanding of the fact that the Bank could influence the reserve position of other banks, it is surprising that he did not suggest that the changing demand for reserve by the member banks could be compensated by the Bank. Instead, he supposes in much of his discussion that the banking system as a whole — the central bank included — expands until checked by an outflow of gold.⁵³ The provinces are left unchecked during the period before the exchanges create pressure. It is true that in a later pamphlet he suggests that the Bank should create abundance or scarcity of money as desired,⁵⁴ but he makes little of the point.

Torrens also emphasizes reserve relationships between the country banks, and he points out that reserve ratios are high in periods of confidence and low in periods of pressure. But, instead of supposing that these changes in the demand for reserve are the cause of the instability, he argues that, if the "circulating money" in the metropolis were all gold, there could be no overissue in the country for any considerable period.⁵⁵

Thus there was a gradual abandonment of

⁵¹ See particularly his letter to Tooke in 1838, *loc. cit.*, p. 369. Concerning Torrens's interpretation of his earlier paper (published in *Letter to Lord Grenville*), Pennington tells Tooke that he never intended to say that "every million of notes issued by the Bank of England forms the basis of five millions of deposits."

⁵² Paper in *Letter to Lord Grenville*, pp. 121-123.

⁵³ Letter to Tooke, *History of Prices*, II, 371.

⁵⁴ *A Letter to Kirkman Finlay, Esq., on the Importation of Foreign Corn, and the Value of the Precious Metals in the Different Countries* (1840), pp. 101-102.

⁵⁵ *Letter to Lord Melbourne* (1837), pp. 12-19, 48-54. In the *Inquiry into the . . . Renewal of the Charter* (2nd ed., 1844), pp. 39-43, Torrens reverts to the idea that the country banks are controlled — though in a faulty manner — by the necessity of maintaining price equilibrium, but it is price equilibrium with the outer world instead of with London merely.

the view that the country banks were required to keep in step by the necessity of maintaining price equilibrium with London. More emphasis was placed upon the relation of reserves to notes and deposits as such, but without any confidence that control through reserves was feasible. There was also an odd confusion as to the nature of the problem: the argument was likely to shift without warning to a supposed situation in which the country banks were required to maintain equilibrium directly with the international standard rather than with the Bank or with London.

The influence of the Bank upon the country banks by means of cheap credit was emphasized by some observers from about the time of the Bank Charter inquiry. Palmer is asked: What effect does an increase or decrease of the Bank circulation have on the country circulation? He replies that a material increase of the Bank circulation, "the pivot of the general circulation," tends to reduce the rate of interest, and so makes it difficult to find beneficial investment for money sent to London. Country bankers are forced to resort to their immediate neighborhoods for new channels for surplus money, which tends to increase the country circulation at an early period after the London circulation has increased.⁵⁶ Later, in referring to the pressure of 1836, Palmer states that the country banks adhering to a lower rate than the London rate had to take additional securities (i.e., bills), but as their "surplus funds" in London were soon absorbed they adopted the London rate.⁵⁷

Though Palmer evidently considers that the change in the terms of credit is made effective through the reserve position of the country banks, he does not intend to emphasize reserve relationships as such — any more than Thornton did when he stated that the country banks must reduce their issues when prices fell in London. I believe he has in mind an equilibrium of local discount rates with the London market rate, the latter being in turn influenced by the Bank.

However, Palmer stresses the point that the control over the country banks is very loose.

⁵⁶ *Ev.*, 1832, q. 361.

⁵⁷ *Causes and Consequences of the Pressure upon the Money-Market*, p. 37.

In his evidence he hastens to add that a diminution of London issues does not have an equally rapid effect in reducing the issues of the interior, and that the latter may increase without any originating cause at the Bank.⁵⁸

The influence of the London rate upon the country banks is explained also by Stuckey and Hobhouse. Stuckey states that when the gentlemen in London who manage the circulation "apply the screw," the country banks must restrict. But, unlike Palmer, he denies that a contraction of advances causes any appreciable contraction of notes. Notes contract only with a fall of prices, and the fall of prices is caused only by the action of the Bank and not by the country banks.⁵⁹ Hobhouse states that the lowering of the rate in London tends to reduce country bankers' money employed there and to increase investments in the country. While the country circulation might be indirectly affected it would not be the instrument either for increasing the country advances or raising prices.⁶⁰

Gilbart's position is fundamentally similar. Easy credit in London facilitates additional advances by the country banks, and, though the advances do not automatically increase the circulation, they may help stimulate trade and lead indirectly to an increased demand for notes. But he does not appear to see the monetary significance of the increase of advances, since he insists that if any other capitalist made

these advances they would have precisely the same effect.⁶¹

Thornton, Ricardo, and their contemporaries had not specially defined the kind of country media which the Bank controlled. It seems probable that the superstructure in the country which they really had in mind was the note circulation together with all credit substitutes, for they clearly recognized the effect of deposits and bills upon prices.⁶² Since it was the relation of prices in the country to prices in London which they considered important rather than the ratio of country bank reserves to certain liabilities of the country banks, it was not necessary for their purposes to state precisely which of the latter were significant for purposes of control. The Committees in 1819 and 1832 usually asked the question in some such form as: What effect does the Bank circulation have on the country circulation? No doubt in many instances they were merely adhering to the phraseology of a former period in which notes were the most important form of credit issued by the country banks, without any intention either of including or excluding deposits. If they thought about the matter they may have considered that the credit substitutes would vary generally with the notes.

The question of the kind of country bank media over which the Bank exerted control did not become important until the banks came under attack following the panic of 1825. Then the discussion took an odd turn. The Currency School contended that the control over the country banks which really mattered was control over their circulation, and that such control the Bank did not have for practical purposes. The country bankers and their supporters, on the other hand, claimed that the Bank could influence only their advances, but that such advances were *without any monetary significance*. The Bank's influence over the country circulation, they claimed, was entirely

⁵⁸ Ev., 1832, q. 361. Palmer is then asked (qs. 368-376) if the country circulation is not regulated by prices. He replies that there is no doubt of it; and he agrees that the country banks can not maintain a larger circulation than the wants of their district require. But it is clear that he considers that the advances of the country banks are to a large extent responsible for the situation out of which the demand for notes arises.

⁵⁹ Ev., 1841, qs. 460-472, 525-550. Stuckey mentions another point of contact between the London money market and the local rate. He says that, when money is tight in London, commercial houses demand prompt payment from customers in the country and the latter must apply to their country banker (qs. 643-644). See also Stuckey's evidence, H.C. 1819, p. 246. In his evidence in 1832 he states that, in principle, the country banks are liberal when the Bank is liberal (qs. 1024-28). See also Easthope's evidence to the same effect, 1832, q. 5913. James states that the first effect of scarce money is felt in London; those who can not get it there go to the country (Ev., 1841, q. 1505).

⁶⁰ Ev., 1841, qs. 205-234.

⁶¹ Gilbart, Ev., 1841, qs. 979, 1032-44. Even Loyd concedes that a rise in the Bank rate tends to "produce a contractive effect upon the country circulation, and still more on the state of confidence and of the auxiliary currency" (*Separation of the Departments of the Bank, 1844, Tracts*, p. 264).

⁶² Thornton, *Paper Credit*, pp. 39-43; Ricardo, *Proposals for an Economical and Secure Currency* (2nd ed., 1816), Essays, pp. 160-161.

indirect. It possessed such influence not through being able to induce the country banks to issue more notes, but by itself stimulating trade and making it easier for the country banks to increase advances, and so causing the public to require more currency. In the next section we shall consider theories of this order.

3. *Theories that the Country Circulation was Governed by the Demand and that the Bank Influenced it only through the Demand*

It should be borne in mind that the theories we are dealing with in this section were developed principally during the agitation for bank reform. Contemporary writers were interested in assessing blame for credit fluctuations. The Currency School were attempting to prove that the country banks were not responsive either to action taken by the central issuer or to the foreign exchanges. But, owing to the fact that they directed their criticisms at the circulation, which they considered the real source of the disturbances, the question whether the country banks could be adequately controlled tended to drift into the question whether banks had a peculiar power of initiating credit and price inflation through their note issues.⁶³ The country bankers, therefore, instead of arguing the question of control as such, concentrated their efforts on trying to prove that their note issues responded passively to the demand and so could not be responsible for credit fluctuations.⁶⁴

The question whether the country circulation was governed by the demand was argued on two different grounds, though frequently they were not kept distinct. First, did the demands of the public govern the issues of a system of banks in the same sense that it governed those of an individual bank? As the question was often phrased by contemporary writers, did the prompt presentation of notes serve as a check against a general overexpansion or merely against a disproportionate expansion by any given bank? Secondly, was the country

circulation in the aggregate capable of initiating or amplifying an increase of transactions and rise of prices?

The idea that an individual bank could not issue a disproportionate amount of notes goes back to Thornton and his contemporaries. Many of the country bankers, however, when the attacks upon them began in the 'twenties, argued that all banks taken together were prevented from overissuing by the prompt presentation of their notes by other banks. When they stated that they were limited by the demands of their customers they did not mean — at this stage — merely that notes were only one kind of circulating medium, the demand for which could be fully satisfied provided there were proper limitations on the creation of general purchasing power. They apparently meant — at least they allowed others to believe that they meant — that expansion was limited by the demands of the public, even supposing that note expansion represented general expansion. Kirkman Finlay, for example, stated that there could be no overissue in Glasgow because any notes in excess of the wants of the public would promptly find their way into some other bank and be presented for payment.⁶⁵ A similar mistake was made by the Lords Committee on Promissory Notes, by Mushet, and by many others.⁶⁶

The fallacy of supposing that prompt presentation was a guarantee against overexpansion by a system of banks was exposed by Joplin, Pennington, Palmer, and others. Joplin pointed out that banks were a check upon one another only in the sense of preventing any one bank from exceeding its due proportion of the whole.⁶⁷ Pennington stated that if any one bank should improvidently extend its discounts or other securities, it would be warned of its imprudence by an inconvenient diminution of its reserve. But the extension, he adds, does not

⁶³ Ev., H.C. 1826, p. 59.

⁶⁴ Report, H.L. 1826, pp. 5-6; *Effect of the Issues of the Bank of England*, p. 206.

⁶⁵ *Views on the Currency*, p. 153. Joplin was arguing against the point that competing banks in London would give adequate safeguards against overissue, but he did not limit the application of his principle. Compare McCulloch, *Historical Sketch of the Bank of England* (1831), pp. 47-48. McCulloch was arguing on the same side, but his explanation was defective.

⁶⁶ See, for example, the minutes of the Select Committee of 1840, *passim* (P.P. 1840, IV).

⁶⁷ Being not unwilling, however, to hold the Bank responsible for credit fluctuations, they argued that it could expand its issues and thereby generate speculation.

actually take place so suddenly or so largely as to create that sort of inconvenience.

It is slowly and gradually, when credit is high and expectation on the wing, and under circumstances which encourage extraordinary speculation, that bankers are induced greatly to extend their circulation; each being persuaded that, at such a period, his competitors will pursue the same course, and, by so doing, prevent the inconvenient payment to each other of large balances, at the period of mutual liquidation.⁶⁸

Despite this excellent refutation, many of the country bankers and their supporters continued to argue that prompt presentation of notes prevented overissue by a system of banks. Such, for example, was the position taken by Stuckey, Gilbert, and Fullarton,⁶⁹ though not by Tooke and Mill. The Currency School, on the other hand, continued to point out the error in this view.⁷⁰

It should not be supposed, however, that the argument of the country bankers that their circulation was governed by the demand rested simply upon such weak ground. Their chief argument was that country notes were only a small portion of the total paper credit of the kingdom, that they were issued only for local payments and not in the discount of bills for large mercantile transactions, and that consequently they could not influence speculative transactions or the price level. Here their argument was on somewhat better ground.

Some of the country bankers had stated before the Committees in 1819 that their circulation was governed by prices and the volume of transactions.⁷¹ The Committee of Country

⁶⁸ Pennington's paper in Tooke's *Letter to Lord Grenville*, pp. 121-122. See also his letter to Tooke in *History of Prices*, II, 370 *et seq.* Pennington showed clearly that one theory covered both deposit and note expansion.

Palmer held the same general position (Ev., 1832, q. 912 *et seq.*).

⁶⁹ Stuckey, Ev., 1841, q. 627; Gilbert, Ev., 1841, q. 1361; Fullarton, *Regulation of Currencies*, ch. v.

⁷⁰ Loyd stated that the frequent interchange of notes between banks preserved the proportions of their issues according to the state of their business; but it would not prevent all of them from overissuing simultaneously (Ev., 1840, q. 1867; see also Norman, q. 2148 *et seq.*).

⁷¹ Hudson Gurney (of Norwich), for instance, stated that his notes were limited by the demand for the transfer of goods, and were influenced by the Bank only through the medium of prices (Ev., H.C. 1819, p. 249). Samuel Gurney, who dealt with the country banks, stated that an increase of

Bankers (1833), of which Hobhouse was chairman, claimed that the country circulation was no more than a tenth of the total paper which might have a bearing upon depreciation and appreciation.⁷² Granting, therefore, that the country circulation was proportionately responsible for inflation, it was approximately true, they claimed, that it was governed by the demand. But they denied that it was in fact responsible at all for inflation. Speculation, they claimed, started with influential merchants, whose borrowings for the purpose of holding stocks of goods were not taken in the form of country bank notes.⁷³ In his evidence before the Select Committee in 1841, Hobhouse elaborated these points. The country notes, he said, were used almost entirely in agricultural districts. They were issued only for the purpose of making local payments. They were rarely used in discounting bills, and so could not be used for financing speculative mercantile transactions.⁷⁴

Stuckey's argument before the Committee was essentially the same and need not be given in detail. The point which he stressed most was that the country circulation was determined almost wholly by the money volume of transactions and the general prosperity in the agricultural districts.⁷⁵

Gilbart's position can also be given briefly. An increase of the country circulation, he stated, was the result and not the cause of a rise of prices or an increase of trade activity. His special contribution was his study of the seasonal variations of the circulation and of the factors which lay back of them. His aim, of course, was to show in detail how the circulation responded to the demand for it. He stated that the circulation of London, which at this

Bank paper gave such a facility to the payments of the kingdom that transactions became greater, and so a greater country circulation was required (Ev., H.C. 1819, p. 174).

⁷² Presumably *total paper* meant deposits, circulating bills, and notes.

⁷³ Memorial of the Committee of Country Bankers, June 12, 1833, P.P. 1833, (457), XXXIII. The Committee went to the extreme of stating that, considering the "distinctive character" of the country notes, they would be found to aid production and therefore to afford the means of paying for larger imports instead of causing them.

⁷⁴ Ev., 1841, qs. 9-47, 96-112.

⁷⁵ Ev., 1841, qs. 456-494, 515-531.

point he regarded as governed by the demand, the circulation of the English country districts, of Scotland, and of Ireland, each had its own seasonal pattern. Though he did not have available the statistics of the factors bearing directly upon the seasonal variations, his explanation was of the type which one would see today.⁷⁶

So far as the country circulation was concerned, Tooke, Fullarton, and Mill agreed with Gilbart and the country bankers.⁷⁷ But they took exception to the latter's statements that the Bank of England (unlike the country banks) issued notes at its own initiative.⁷⁸

The statements of the country bankers and their supporters that their note circulation depended upon the demands of the public have been interpreted by the Currency School and by some modern writers⁷⁹ to mean that the amount of their *advances* depended upon the demands of the public. Gilbart and Fullarton did indeed argue that the Bank of England could safely satisfy the legitimate demands of trade for discounts,⁸⁰ but they did not apply that theory to the country banks. The country

bankers, as well as Gilbart, insisted that the amount of their circulation was not determined by the amount of their advances. Though they had no exact conception of what governed their advances,⁸¹ they did not argue that the latter were governed by the legitimate demands of trade. Their position was that their ability to extend accommodation depended directly upon their available resources, which in turn were influenced by the liberality of the Bank in London.⁸² Tooke also pointed out that the country banks must attend to the "conduct" of the Bank in making advances.⁸³

The real weakness of their position lay in their denying the monetary aspect of their advances. Even though the level of the circulation did depend proximately upon the demands of the public, it was still true that the banks were able to contribute toward an increase of money outlay through the creation of deposits and notes taken together. But they denied that their influence on business commitments differed in any way from that of any other capitalist who advanced an equal amount.⁸⁴

Loyd, Torrens, and Peel, however, considered that the proper measure of the responsiveness of the country banks to the foreign exchange and to changes in the Bank circulation was the movement of their circulation. In view of the fact, therefore, that the country circulation obviously did not vary with the Bank circulation, they denied that there was adequate control. They looked upon bank notes and coin as the basis of all other credit, and so they concluded that, if the basis were not controlled, the credit superstructure could not be. How was it possible, they reasoned, for the country banks to attend properly to the action of the Bank and at the same time satisfy all demands for what constituted the basis of credit? To Loyd and Peel the statement that the country circulation was governed by prices meant that the country banks aggravated any tendency toward inflation or deflation.⁸⁵

⁷⁶ Gilbart, *Ev.*, 1841, qs. 912-941, 951, 983. See also his article, "The Laws of Currency," *Journal of the Statistical Society*, vol. xvii.

⁷⁷ Tooke, *An Inquiry into the Currency Principle* (1844), ch. viii; Fullarton, *Regulation of Currencies* (1844), ch. v; J. S. Mill, "An Inquiry into the Currency Principle, by Thomas Tooke," *Westminster Review*, vol. xli (1844).

⁷⁸ With regard to the Bank of England circulation, Gilbart wavered. Part of the time he stated that it responded to the "laws" of demand; but when he was criticizing the Bank's policy, he stated that it was controlled by the Bank. (*Ev.*, 1841, qs. 919, 955, 995, 1031, 1362.) Hobhouse (qs. 237-241, 274) and Stuckey (qs. 460, 605) also stated that the Bank managed its circulation. Tooke, Fullarton, and Mill (in 1844), on the other hand, contended that the Bank, like any other bank in this particular, was entirely passive; that the level of its issues depended upon the demands of the public. See Tooke, *Currency Principle*, chs. x-xi; Mill's review, *Westminster Review*, xli, 592; and Fullarton, *Regulation of Currencies*, pp. 94-97. Tooke criticized particularly the evidence (1841) of Hobhouse and Gilbart in this regard (*Currency Principle*, pp. 55-58).

⁷⁹ For example, Mises, *Theory of Money and Credit*, pp. 343-345; Feavearyear, *The Pound Sterling*, p. 250.

⁸⁰ Gilbart, *Ev.*, 1841, qs. 955-959, 1026-28, 1362-64. Fullarton, *Regulation of Currencies*, p. 198. Such statements are not in the writings of Tooke or Mill. Fullarton, it may be noted, stated that the Bank should curtail credit when the balance of payments was against England (pp. 156-157).

⁸¹ They sometimes stated that their advances were made from their *capital*, i.e., cash resources. See, for example, Hobhouse, *Ev.*, 1841, q. 35.

⁸² Stuckey, *Ev.*, 1832, qs. 1024-28; 1841, qs. 460, 472. Wilkins, *Ev.*, 1832, q. 1607. Hobhouse, *Ev.*, 1841, qs. 205-233.

⁸³ *Currency Principle*, p. 45.

⁸⁴ See Gilbart, *Ev.*, 1841, q. 1034.

⁸⁵ For Loyd's position, see *Ev.*, 1840, qs. 2730, 2800, 2982,

4. Conclusion

Logically the first question in the theory of the Bank's control over the country banks is to what extent the country circulation competed with that of the Bank. The Bullionists during the Restriction period, anxious to show that the Bank was responsible for depreciation, contended that competition was on such a limited scale as not to impair control. They admitted that the spheres of circulation of the two kinds of notes varied somewhat, and they clearly recognized that the discredit of the country notes (and the restoration of confidence in them) caused a divergent movement of Bank notes and country notes. But they assumed that such changes in the demand for Bank notes could be compensated by appropriate action on the part of the Bank.

After the panic of 1825 the critics of the country banks, including the Government during the panic and the Bank officials, claimed that competition between the two issues seriously interfered with control by the Bank. It was supposed not only that the country circulation was under very inefficient control by the Bank, but that it frequently expanded *as a consequence* of a contraction by the Bank, the void in the circulation created by the Bank giving the country banks opportunities for the profitable extension of their own.

On logical grounds this argument seems to be without merit. A general contraction of credit by the Bank would not increase the willingness of the public to use country bank notes. Nevertheless, the question remains whether variations in the country circulation caused a variation in the demand for Bank notes (and coin) to an inconvenient extent. I do not believe there was an important problem of this kind after the panic of 1825. At no time from 1833 to 1847 did the country circulation rise appreciably when that of the Bank Branches declined, though there were periods in the 'thirties when the former rose more rapidly than the Branch

circulation. After 1839 there was rather a gradual decline of the country circulation and a gradual increase of the Branch circulation. To view the problem in true perspective, it should be borne in mind that the changes in the demand for Bank notes arising from changes in the country bank issues made up only one among many of the factors tending to affect the reserve position of the London banks. (They were on the same footing with changes in the country banks' demand for till money.) If we suppose that the Bank maintained the circulation at some predetermined level the problem seems difficult to cope with. But, as I shall later attempt to show, the procedure of the Bank and of the money market permitted the London banks to adjust reserves to requirements semi-automatically.

Let us turn to the theories of the mechanism of the control over the country banks. It was observed during the Restriction period that the Bank's control over the country banks was not direct, since the country banks held few Bank notes but maintained working reserves mostly in the form of London balances, bills discountable in the London market, and government securities. The theory was developed that the Bank controlled prices in London and that the country banks in order to prevent a persistent adverse balance of payments had to maintain prices in their districts in equilibrium with those in London. It was realized that the country banks had to maintain a margin of liquid resources, particularly in London, for the payment of notes and drafts; but no special importance was attached to the form in which they were held, or to the proportion of total available resources to liabilities provided they were large enough at any given time to meet probable demands. That is to say, they considered the need for a working reserve, but they were not thinking of the demand for reserve—in the sense of a coefficient to be applied to the amount of reserve—as a factor controlling the amount of country bank liabilities.

The idea that the country banks were controlled through the financial center was an important contribution. The main criticism of the theory is that it supposed that disequilibrium with London would be registered in a discrepancy in prices. To say that the required

1997, 3013; *Remarks on the Management of the Circulation* (1840), *Tracts*, pp. 96-115; *Second Letter to J. B. Smith* (1840), *Tracts*, pp. 215-222. See also Norman, *Ev.*, 1840, qs. 2018-26; Torrens, *Renewal of the Charter* (2nd ed., 1844), pp. 39-43; Peel, *Speeches . . . on the Renewal of the Bank Charter* (1844), pp. 29, 68-71.

CHAPTER III

THE "MODUS OPERANDI" OF THE DISCOUNT RATE AND SECURITY OPERATIONS: HOW THE BANK INFLUENCES THE MONEY MARKET

THE discussion of the *modus operandi* of Bank rate involves two problems that are logically distinct. First, there is the question of the means by which the Bank could produce a given scarcity in the money market. Second, there is the question of the manner in which monetary changes — whether conceived of as acting through the currency or money rates or both — affected the amount of outlay and the price structure. The present chapter and Chapter XI will deal with the theories of Bank rate and security operations considered as a means of influencing the credit situation. Chapter IV will give particular emphasis to the theories of the Bank's influence on prices and the extent of such influence. One must admit that it is not always possible to separate the theories clearly into such categories; nevertheless I believe it is worth while for one who is reviewing the theories to keep such separation in mind as a point of departure.

1. *Bank Rate as an Instrument for Regulating the Circulation*

During the Restriction period there was no discussion of Bank rate policy as such, since, as Keynes points out, there had been no change in the rate from 1746 (strictly, from 1773) until 1822.¹ What corresponded to it might be described as the discussion of Bank note policy.² The control over the Bank's securities, by whatever method, was considered subsidiary to the

regulation of the circulation.³ Both Thornton and Ricardo referred to Bank rate as a possible means of control; but the result at which they aimed was a given level of the circulation rather than a given level of money rates.⁴ Implicit in this way of viewing Bank policy was the belief that the state of the circulation was not merely the *mechanism* by which the Bank accomplished a given result but that it was also the most efficient *measure* of results.

When, therefore, the discussion of discount policy came into vogue it was only natural that Bank rate should have been viewed as a mere tool for regulating the note circulation. Thus Tooke in 1826 discussed rate policy under the heading, "Regulation of the Bank Issues."⁵ He considered the reduction of the rate in 1822 as one of the four methods which the Bank had used to extend its issues, the other three being new modes of accommodating individuals, the purchase of Exchequer bills, and the purchase of pension annuities. He thought the Bank should change the rate more frequently with the idea of preventing undue variations in the amount of discounts. Unless such variations

¹ This point seemed so obvious that little trouble was taken to explain it. See, for example, Report of the Lords' Committee of Secrecy, H.L. 1797, pp. 149-150; Bullion Report, P.P. 1810, III, 22.

² Thornton, *Paper Credit*, p. 287 et seq. Ricardo, *Principles of Political Economy and Taxation*, Gonner edition, p. 352. Though Thornton often referred to the effect of money rates upon the demand for commodities, he nevertheless took the amount of the circulation as his point of departure in discussing control by the Bank. (Cf. Chapter IV below.)

³ *Considerations on the State of the Currency* (1826), p. 63.

¹ The rate on "foreign bills" was raised from 4 to 5 per cent May 13, 1773 (Report, 1832, app. 89). See also Samuel Thornton, Ev., H.L. 1819, qs. 78-79.

² Cf. Keynes, *Treatise on Money*, vol. 1, p. 187.

were compensated by changes in government securities, he claimed, there must be corresponding variations in the circulation or in the amount of treasure in the Bank. He did not consider (here) the possibility of a compensating change in deposits.⁶ The private deposits of the Bank were in fact quite small at this time.⁷

McCulloch's position is very similar. A reduction of issues, he said, "is most commonly effected partly by a contraction of discounts." An increase of the rate is most expedient for this purpose.⁸

2. *Bank Rate as a Means of Influencing the Money Market, Though Acting through the Circulation*

From about the time of the Bank Charter Evidence there appears to have been a gradual tendency to emphasize the influence of the Bank rate and security operations more upon market rates than upon the quantity of currency in circulation. As will be shown later, Tooke and his followers went to the extreme position that the quantity of currency had nothing to do with causing ease or pressure upon the money market. But the position still more commonly held was that, though the *actual amount* of currency would not necessarily increase with relaxation or diminish with pressure, the scarcity of currency relative to the demand was the medium through which the Bank created a given scarcity of moneyed capital. That is to say, the scarcity of currency was considered the *modus operandi* for influencing the market, though the actual amount of currency was less emphasized as the *measure of results*.

Gurney tells the Bank Charter Committee that "of course" the sale of Exchequer bills reduces the Bank circulation.⁹ But his more detailed explanation shows that he is thinking mainly of *tendencies* for the circulation to change and that the more tangible results he expects to flow from the sale of securities and raising the rate are higher market rates. The sale of securities or the export of gold, he

states, reduces the circulation and increases interest rates, but the notes are reissued to the extent that the public is willing to pay Bank rate.¹⁰ He has already called attention to the fact that the same amount of paper may give a greater feeling of abundance at some times than at others.¹¹ On the whole, his evidence seems to mark a transition from the old point of view, where Bank policy was regarded as note policy, to the newer view, where Bank policy was thought to be concerned with influencing the money market.

The same may be said of Palmer's view. The problem of control is stated in general terms as a problem of regulating the circulation. The moment the Bank declares a public rate of discount, he states, "it is an offer by the Bank to create money at that rate."¹² So far as normal periods were concerned, the procedure which he advocated in 1832 presupposed that the Bank should not regulate credit primarily with reference to rates in the money market. But in dealing with periods of pressure he thought that the state of the money market should be the first consideration. As time went on he emphasized this criterion more and more. Nevertheless he reasoned that it was through the circulation that the Bank acted to produce a given result.¹³

3. *Position of the Currency School*

The Currency School held to the old-fashioned view that Bank policy was — or at least ought to be — simply currency policy. The existence of higher money rates during a drain would not in the least have satisfied them if the Bank circulation registered no change. A change in the securities of the Bank had no real significance unless accompanied by a change in the amount of notes.¹⁴ Loyd criticized the Bank for not making greater efforts to contract the circulation during the panic of 1839.¹⁵ It was beside the point for him that the Bank raised discount rate and permitted the reduction of bullion, acting in conjunction with the rate,

⁶ Ev., 1832, qs. 3570-91.

¹¹ Ev., 1832, q. 3508.

⁷ Ev., 1832, q. 570. See also qs. 174, 198, 477.

⁸ See, for example, Ev., 1840, qs. 1411-26.

⁹ See Loyd, *Second Letter to J. B. Smith*, in *Tracts*, pp. 198-199.

¹⁰ *Remarks on the Management of the Circulation*, in *Tracts*, pp. 70-73.

¹ *Considerations on the State of the Currency*, pp. 70-79.

² Report, 1832, app. 32. Yearly average private deposits in 1825, for example, were only £2,607,900.

³ *Historical Sketch of the Bank of England* (1831), pp. 38-39.

⁴ Ev., 1832, qs. 3584-85.

to create severe pressure on the money market.

Norman also considered that the level of the note circulation was the proper measure of the success of Bank policy. For a drain to be checked, he told the Select Committee in 1840, the circulation would have to be reduced. However, at a later point in his evidence he stated that he did not look upon Bank rate merely as it affects the circulation. An advance of the rate limits all banking expedients; it increases bankers' reserves (i.e., the demand for reserve); it renders persons less willing to discount bills; and it makes merchants less willing to buy and more willing to sell.¹⁶ But in his *Letter to Charles Wood* in 1841 he characterized a contraction "connected with the state of the money-market" as uncertain in point of time and intensity, and dependent upon the caprice of those who administer the currency.¹⁷

The Currency School were correct in insisting, against the arguments of Tooke and his followers, that the Bank was able to exert pressure via the currency; though of course they should have considered reserve deposits as well as notes. As we shall see, however, their belief that the Act of 1844 had abolished the Bank's control over the currency led them later to deny that central banking policy was monetary policy.

4. *Was Bank Rate Supposed to Exert an Influence on the Market through Deposits?*

It was not uncommon for writers to refer to Bank deposits as *analogous* to Bank notes. But a formal assertion of that sort does not indicate that the writer makes use of such a concept in his reasoning about the Bank's means of control. Thornton, for example, tells the Committee on the Outstanding Demands of the Bank that "balances at the Bank are to be considered therefore very much in the same light with the Paper circulation."¹⁸ He expresses a similar view in *Paper Credit*. But he considers that deposits are under the control of the public, while it is the notes which are under the control of the Bank.¹⁹ Whenever he discusses the Bank's control over money rates and prices he reasons that the circulation is the instru-

ment used.²⁰ The Committee on Public Expenditure of 1807 likewise held that "A Note holder, indeed, does not differ essentially from a Person to whom a Balance is due. Both are Creditors of the Bank, the one holding a Note, which is Evidence of the Debt due to him, the other having the Evidence of an entry in the Ledger of the Bank."²¹ But the Committee did not argue that deposits exerted an influence similar to notes. Indeed the point up for discussion was whether deposits were as profitable to the Bank as notes.

Joplin gave an extended account of how London banks created deposits by making loans; and he held that a "transferable deposit and a bank note are equally money."²² He further stated that the London bankers deposited in the Bank any money in excess of their daily requirements.²³ But he made no use of this idea in discussing the Bank's influence on the market. Like the other adherents of the Currency School he thought that requiring the note issue to vary with the gold reserve would end the Bank's special influence upon the market.²⁴

Torrens pointed out (giving Pennington as the originator of the idea) that the banks themselves expanded deposits, and that deposits were part of the "general medium of exchange." But he placed Bank deposits on the same footing as those of other banks. They acted upon prices and the rate of interest in precisely the same way. Bank notes alone were the basis of deposit expansion, and it was therefore through the issue of notes that the Bank exerted an influence different from that of other banks.²⁵

Palmer's explanation of the "rule of 1832" might suggest that Bank deposits were to be regarded as part of the basis of control.²⁶ At various other times he stated that a portion of the Bank's deposits were to be regarded as part of the circulation. The deposits in this category were the surplus money of the East

¹⁶ For example, *Paper Credit*, pp. 179-180.

¹⁷ Second Report, 1807, p. 77.

¹⁸ *Currency Reform* (1844), pp. 39-45. Joplin probably got the idea from Pennington. In his *Views on the Currency* (1828), pp. 183-185, Joplin claimed that deposit banks were mere middlemen between borrowers and lenders.

¹⁹ *Currency Reform*, p. 49.

²⁰ *Currency Reform*, pp. 54-63.

²¹ *Letter to Lord Melbourne* (1837), pp. 6-21, 28-29.

²² *Ev.*, 1832, q. 72 et seq.

²³ *Ev.*, 1840, qs. 1745-61, 1918.

²⁴ Pages 92-95.

²⁵ *Ev.*, H.C. 1797, p. 56.

²⁶ *Paper Credit*, pp. 105-107.

India Company and of the London bankers and others temporarily deposited with the Bank awaiting employment. (Those placed in the Bank for security only, and not to be speedily drawn against, were *not* to be considered as part of the circulation.²⁷) It was apparently their susceptibility to withdrawal which made them similar to the circulation, and not their significance from the standpoint of control.²⁸ It is noteworthy that he placed London bankers' balances in the same category with the balances of the East India Company.

Some observers clearly recognized that a reserve deposit was as readily available to a banker as Bank notes. Thus Glyn stated that deposits at the Bank were as much reserve to a London bank as notes in the till. There was no fixed proportion, he said, between notes and balances.²⁹ Gurney, in discussing the question whether large reserves in London banks would lead to a rise of prices, stated that balances in the Bank were "the same thing" as notes in the till.³⁰ But while they recognized, at least formally, that reserve deposits were as available as notes, they did not appreciate the fact — or at least made no use of it in their discussion of control — that the Bank itself created reserve deposits.

Although the idea that the Bank exerted control partly via reserve deposits was not understood generally, it was understood by a small minority of contemporary observers. Pennington pointed out that a change of London bankers' deposits at the Bank, as the result, for instance, of gold movements, represented a change in the quantity of money just as much as if the Bank were to issue notes for the gold. On the other hand, he said, ordinary drawing accounts (of traders) were similar to the deposits of the London private banks.³¹ Page also

explained the matter. He was asked by Charles Wood why the deposit department of the Bank should not be conducted upon the same principles as any other bank. He replied that when the Bank acted upon that principle, instead of making use of deposits, it *created* an additional quantity of money. After pointing out that the London bankers maintained deposits at the Bank, he added that, if the Bank under the pretense of making use of deposits created an additional quantity of money, it did that which the other London banks could not have done for themselves.³²

During Hume's examination of Norman (in 1840) the latter was insisting that no pressure would result from a withdrawal of bullion if only deposits were reduced and not the note issue.³³ Hume asked him why he gave all his attention to Bank notes, inasmuch as the Bank might bring pressure by reducing deposits. He asked further if it would not be better for the Bank to reduce securities "and leave it to the action of the public to determine whether this reduction shall fall on the deposits or on the circulation."³⁴ Norman refused to admit that any pressure was brought at the initiative of the Bank without a reduction of the circulation. He did not, indeed, deny that "substitutes" for currency influenced the market, but he insisted that the credit substitutes rested upon coin and notes as a "foundation."³⁵ He considered Bank deposits, like those of any other bank, as part of the superstructure and not as part of the foundation. Their amount, he believed, was

²⁷ *Causes and Consequences of the Pressure upon the Money-Market*, pp. 34-35. In his *Reply to the Reflections of . . . Loyd* (1837), pp. 5-6, he stated that such deposits could be considered as Bank notes temporarily placed in the Bank awaiting reissue; "and whether they were in the Bank, or in the Treasury of the East-India-House, and the tills of the Bankers, was immaterial."

²⁸ Ev., 1840, qs. 1555-73, 1652.

²⁹ Ev., 1832, qs. 2870-80.

³⁰ Ev., *Report from the Select Committee on Manufactures, Commerce, and Shipping*, 1833, q. 385 (P.P. 1833, vi).

³¹ Letter to Tooke in *History of Prices*, II, 377-378.

³² Page, Ev., 1840, qs. 873-875. How far Gilbert grasped the matter is not certain. He made the statement that notes lodged in the Bank by the London bankers in the evening and withdrawn the following morning were clearly currency. Though deposits were not money, they were a "means of measuring the liberality of the Bank of England with regard to her issues." Yet he claimed that deposits in other banks had the same efficiency in performing the functions of currency as deposits in the Bank of England. He pointed out that the purchase of securities by the Bank might add to the deposits and thus add to the "power of purchase," but he failed to note the effect on London reserves. ("The Currency: Banking," *Westminster Review*, vol. XXXV, 1841, pp. 99-103.)

³³ Ev., 1840, qs. 2232, 3451-56.

³⁴ Ev., 1840, qs. 3460-62. For further discussion between them on the point whether a Bank balance will serve in the place of notes, see qs. 2390-2437.

³⁵ Letter to Charles Wood (1841), pp. 80-82.

determined by the public and not by the Bank.³⁶ As I interpret Hume, he was trying to point out to Norman that Bank deposits are part of the foundation in the same way that notes are.

In examining Loyd, Hume asked if the modern practice had not "tended to decrease the amount held in Bank of England notes in your till, and to increase the amount held in deposit in the Bank?" Loyd agreed that the practice existed, though there had been no material change in the case of his bank.³⁷ Hume then, in a long series of questions, tried to get Loyd to admit that a London banker could act with reference to a given deposit at the Bank precisely as if he had the same amount in his till.³⁸ Loyd's position was essentially the same as Norman's: the reserve deposit was part of the credit superstructure and not the monetary base. Hume asked if it was "not then the state of the deposits that governs the exchanges . . . more than the circulation?" He insisted that it was, but Loyd denied it.³⁹ The latter contended that the investment in securities by the Bank would have no more effect than the investment of an equal sum by any one else, assuming the circulation not to change.⁴⁰

The explanations of Pennington, Page, and Hume have made little impression upon monetary literature. That deposits bore a similarity to currency almost every one agreed. That London bankers kept part of their ready funds in the Bank every one in the City knew. But what was not generally appreciated was the fact that the Bank itself created the balances, and that through the amount of the balances (and notes, taken together) which it created, or through the terms upon which it stood ready to create them, it could compel the London banks to move in a given direction.

5. *Theory that the Bank Acts upon the Money Market by Changing the Proportion of Lenders to Borrowers*

It will be recalled that Tooke in an earlier work considered that a variation in the securities of the Bank influenced the market by way

of the note issue.⁴¹ He later abandoned that position. In his evidence in 1832 he stated that an abundance or scarcity of loanable funds does not mean necessarily an abundance or scarcity of currency. An increased issue of notes might only swell the note reserves of the London bankers or be deposited by them in the Bank.⁴² During the investigation in 1840 he was asked to explain how the Bank increased the facilities in the money market. He replied that it was by increasing the "proportion of lenders to borrowers; that is, by the employment by the Bank of their deposits on loan."⁴³ Grote and Wood tried to get an admission from him that the Bank made effective a change in the rate by virtue of its influence upon the circulation. Tooke replied that the rate might be affected without affecting the circulation in the least.⁴⁴ So long as the Bank had deposits payable on demand it clearly could not determine whether its deposits or notes should increase.⁴⁵ This statement might lead one to suppose that Tooke meant that the Bank influenced the money market through the supply of cash in *either* notes or deposits, only the proportions being determined by the market. But he seems not to have viewed Bank expansion as a monetary phenomenon; he was thinking of the supply of loans as such.⁴⁶ Any doubt on the matter is removed by his agreeing that the effect on the market would be the same whether a given amount were loaned by the Bank or by others.⁴⁷

Fullarton was evidently much influenced by Tooke. He stated his position with even greater boldness. The demand for the loan of capital, he said, was not a demand for additional means of circulation. Although the Bank's advances were made in notes, any excess issues would find their way back through the repayment of discounts to the Bank.⁴⁸ It might be supposed that Fullarton meant that the market merely adjusted reserves to requirements. But I believe he failed to see that the Bank made effec-

⁴¹ *Considerations on the State of the Currency*, sec. ii. As late as the second volume of his *History of Prices* he referred to the Bank's increasing its issues; e.g., p. 315.

⁴² Ev., 1832, qs. 5152-54.

⁴³ Ev., 1840, q. 3637.

⁴⁴ Ev., 1840, qs. 3761, 3768, 3794.

⁴⁵ Ev., 1840, q. 3624. See also qs. 3831-32.

⁴⁶ See also his *Inquiry into the Currency Principle*, chs. x and xi.

⁴⁷ Ev., 1840, q. 3641.

⁴⁸ *Regulation of Currencies*, pp. 95-96.

³⁶ Ev., 1840, qs. 1688-93.

³⁷ Ev., 1840, qs. 3094-96.

³⁸ Ev., 1840, qs. 3092-3247. See particularly qs. 3101, 3126.

³⁹ Ev., 1840, qs. 3247 and 3605.

⁴⁰ Ev., 1840, q. 2813.

tive a given scarcity of funds through the medium of bankers' cash. The Bank, he said, exerts its influence through the amount of its advances. The "real rub is in the denial of the loan"; not in holding back the note issue.⁴⁹ But in any case, he said, the Bank can exert little pressure until confidence is severely shaken and the public are reduced to dependence upon the Bank. Accommodation may at first be obtained for speculation in defiance of the Bank. It would be obtained without the intervention of Bank notes; or if these were needed they could be extracted from the Bank through deposits. Besides, the speculators' own funds could not be affected at all.⁵⁰ Thus he failed to see any basis for the control of internal credit aside from the fact that the Bank was a very large lender in the money market.

6. Conclusion

The theory of the rate for some years after Resumption was that it was simply a tool for influencing the circulation, the actual level of the circulation being considered the proper guide to action. This continued to be the view of the Currency School until 1844. On the part of Palmer, Gurney, and many others, however, there was a gradual shift to the view that, though the Bank acted *through* the circulation, it should consider the state of the money market as a proper *test*. A few observers, e.g., Pennington and Hume, pointed out the significance of London bankers' balances from the standpoint of control, but their explanations made little impression upon the views of the period. The reserve practices were seen very clearly but their consequences were not fully appreciated. It was not generally understood that the Bank created deposits in the same sense that it created notes. Nor was it generally admitted that the behavior of the London banks would be affected by reserve deposits in precisely the same way as by notes in their till. Glyn, Gurney, and others pointed out that balances served as reserve fully in the same way as notes, though they seemed to ignore the fact (at least in this connection) that the Bank created deposits. The Currency School, however, denied that balances had the same consequences as notes for

the London bankers. They insisted that notes alone were to be considered the foundation of the credit superstructure, whereas bankers' balances were in the same category with other bank deposits—they were part of the superstructure and had the same magnitude of influence.

One reason why so little attention was given to the role of reserve balances in the explanation of control was that the London bankers (according to Tooke) did not keep balances at the Bank until 1825,⁵¹ and even until 1842 the amounts were under a million pounds a good portion of most years. The note reserves of London banks were probably something like seven to ten millions all through the period from 1819 to 1857, depending upon the strength of the reserve position at the time.⁵² Accordingly, there seemed no patent error in considering that the Bank influenced the money market through the circulation.

Tooke desired the Bank to gauge its pressure

⁴⁹ *History of Prices*, III, 146n.

⁵⁰ I base this estimate, which admittedly is very rough, on the assumption that practically all the notes of £200 and over were in London reserves, about half of those from £20 to £100, and a very small proportion of those of £5 and £10 denominations. Contemporary statements on the matter differ and are themselves rather vague. Thornton stated that a "very large proportion" of the London circulation was in the reserves of the banks (*Paper Credit*, p. 74). Later Gurney stated that most of the denominations of £100 and over were in London reserves (Ev., 1832, q. 3627). Burgess believed that the London and country bankers together held "never less than eight millions" (*A Letter to the Right Hon. George Canning*, 1826, p. 18). Joplin in 1844 claimed that about £2,000,000 of Bank notes circulated from hand to hand in London and vicinity and £3,000,000 in the country, the remainder being in reserves in London and country (*Currency Reform*, p. 23). This estimate of the hand-to-hand circulation seems too low. In 1857 Hubbard stated that a majority of the London banks held most of their reserve in Bank balances, though others held mostly notes (Ev., 1857, q. 2599). Arbuthnot, a Treasury official, stated that the London banks held the "greater part of their reserves" in balances (Memorandum on the Question of establishing a National or State Bank, Report, 1858, app. 16, p. 423). Wilson, however, stated that by far the largest portion of the London circulation was in the hands of the London bankers. Weguelin believed that the greater portion was in the pockets of the people, but that the larger denominations were in the London and country banks (Ev., 1857, qs. 670-672). For notes by denominations from June 1817 to April 1819, see Report, H.L. 1819, app. B3. For 1831 and from 1844 to 1857, see Report, 1857, app. 33; Report, 1858, p. xxvi; and Tooke, *History of Prices*, VI, 560-561. For later years, see P.P. 1866, (105), XXXIX.

⁴⁹ *Ibid.*, p. 141.

⁵⁰ *Ibid.*, pp. 141, 159-160.

by the state of the money market, but he denied that this pressure was monetary in character. I believe that the difficulty was not merely that he and Fullarton failed to see the monetary aspect of reserve deposits. It was the smooth adjustment of reserves to requirements at the initiative of the market which was partly, and perhaps mainly, responsible for their confusion. For example, Fullarton thought that he was supporting his view by showing that notes not wanted would be returned to the Bank in the repayment of discounts.

Thus the Currency School concluded that, because the necessary economic adjustments for maintaining international equilibrium were induced by monetary means, Bank rate was an effective instrument of control only as it

brought about visible changes in the supply of currency. This was a mistaken conclusion. It does not follow that recorded changes in the quantity of money are always the best gauge of monetary pressure. On the other hand, Tooke and many others in the City considered that pressure was a phenomenon of the money market and was to be gauged by rate levels and the ease of obtaining loans. Since the central bank could induce a given scarcity of credit with little or no change in the supply of currency — partly, though not chiefly, because reserves consisted to some extent of deposits — they tended to overlook the monetary significance of money market pressure. As we shall see, this view became much more common by 1858.

CHAPTER IV

THE "MODUS OPERANDI" AND EXTENT OF THE BANK'S INFLUENCE ON PRICES

THE theories discussed in the preceding chapter were concerned with the mechanism by which the Bank could make effective a change in the terms of credit. Those reviewed in the present chapter were concerned with the motives for making business commitments and the extent to which they were influenced by changes in the currency and conditions in the money market.

In discussing the theories of the Bank's influence upon prices, Keynes draws the main distinction between the view that the Bank enforces a given rate in order to secure the right amount of bank money and the view that it enforces a given scarcity of bank money in order to secure the required level of rates.¹ During the first half of the century such was not the main line of distinction. It is true that the writers and financiers of that period gave varying degrees of emphasis to the supply of balances relative to the demand and to the cost of credit relative to profits as an incentive to increased outlay. But the main line of cleavage was between those who believed the Bank could influence prices by affording greater accommodation — whether an increase of currency was emphasized or not — and those who believed the Bank possessed no such power — at least to any dependable degree.

Among the writers of the first group there was a growing tendency to emphasize the influence of the "facility," or cost, of credit upon the volume of commitments. But in giving such emphasis they did not mean to ignore the effect upon prices of a change in the currency and the credit superstructure resting upon it. Indeed some of the writers expressed the causal relation both ways. Apparently they did not attach much importance to the order in the causal

chain in which they placed the level of rates and the quantity of the means of payment.

There was indeed an important difference of opinion as to whether the level of the note circulation or the discount rate was the proper criterion for the Bank to follow. But even the Currency School, when discussing the manner in which an increase of the circulation produced a rise of prices, reasoned that it operated partly through its effect upon the money market. Thus among those who held that the measures of the Bank affected prices to a dependable extent there was no important difference of opinion regarding the dynamics of the process.

There was some discussion of the points at which the economic system was most sensitive to greater credit facilities. But the question was not considered of primary importance by the writers of that period. It is an odd fact that those who gave most attention to the influence of the rate upon the starting of new enterprise — Tooke and Fullarton — were interested in disproving that the Bank could influence commodity prices.

1. *Theories that the Bank Can Influence Prices through Cheap Credit*

Thornton at times emphasizes the increase of cash as a condition to rising prices and at other times he gives more consideration to the greater "facility of borrowing." He states, for example, that if A gets more notes because of a greater issue he will part with them for goods, stocks, land, or some other article, because the notes yield no interest.² At another point he states that London traders are encouraged by the greater "facility of obtaining notes at the bank by giving bills for them" to enlarge their speculations. They expect a larger profit or at least

¹ *Treatise on Money*, vol. 1, ch. xiii.

² *Paper Credit*, pp. 264-265.

their ordinary profit on a larger business.³ Thus he appears to hold not only that an increase of currency and a greater facility of borrowing will be associated, but that either will furnish an incentive for increased outlay. There is the qualification of course that a high state of confidence serves to increase the rapidity of circulation, because people then "provide less amply against contingencies."⁴

Tooke in his earlier work, like Thornton, sometimes emphasized the effect of the rate upon spending and at other times he emphasized the effect of an increase of currency and credit. The rate of interest, he states, "enters as cause and effect into every consideration of the regulation of the paper currency."⁵ An increase of credit may drive down the rate on that description of security for which it comes into competition. "If the reduction in the rate of interest, and the facility of credit thence arising, should coincide with a tendency from other causes, to a speculative rise of prices, and with the opening of new fields for enterprise, there will naturally be a great extension of the demand for the loan of capital. . . ."⁶ The order of causation so far seems to be that additional currency affects outlay by first affecting the rate. But in other passages he emphasizes the direct effect of an increase of the currency upon the demand for commodities. An addition to the currency, he states, whether in the form of gold or paper "or mere credit," must eventually raise the prices of commodities. "But . . . it is likely to affect the rate of interest in the first instance, before it comes in contact with commodities."⁷ He apparently meant that an increase of the currency was generally associated with a reduction of the rate; but not that either was merely a means to the other, or that either was exclusively the incentive for an increase of outlay. His mind was fixed more upon the time sequence of the rise in the prices of interest-bearing securities and the rise in commodity prices than upon the exact causal relation between the two.

Thomas Attwood was not interested primarily in the exact process by which monetary causes

produced a rise of prices. Indeed, he stated that among all the arguments against the issue of more currency, he had heard none that an increased issue would not raise prices.⁸ He realized that most purchases were made with credit substitutes; but he believed that the latter derived their "strength and existence" from Bank notes and, when they had shrunk from "moral causes," could be increased only by an expansion of notes.⁹ The parties first receiving the additional supplies of money would make purchases, pay debts, or lend on mortgage and the like. Those in the second and later stages of the process would do the same, until the money reached the laborers.¹⁰ People would not hold money unemployed to an indefinite extent, for they would then lose the interest or the income from property that it would purchase. "Mankind would be acting upon strange principles, indeed, if they retained their confidence in money, and refused it to property, when every market was glutted with money which had but lately overflowed with property."¹¹

Attwood did not consider it of special importance where the increased outlay would begin. At one point he stated that landlords would furnish an ample demand for loans if they could be had for extended periods at reasonable rates.¹² At other times he gave particular attention to the increased demands of traders. The demand for the products of industry, he states, is occasioned by the reaccumulation of stocks of goods and by the increase of general con-

³ *A Letter to the Right Honourable Nicholas Vansittart, on the Creation of Money, and on its Action upon National Prosperity* (1817), p. 92n.

⁴ *Ibid.*, pp. 41-42. Attwood stated that the decline of the Bank circulation was not owing to a lack of liberality on the part of the directors, but to the decline in the demand for discounts, which in turn was owing to falling prices. But he thought the cumulative decline could be stopped by the issue of notes against government securities. However, he stated that the decline would finally be stopped (without intervention by the Bank) when the produce of the country was very low in relation to the inevitable consumption (*The Remedy; or, Thoughts on the Present Distresses*, 2nd ed., 1816, pp. 13-14, 53-54).

⁵ *Letter to Vansittart*, p. 21.

⁶ *Ibid.*, pp. 30-31. In his *Thoughts on the Present Distresses* (pp. 65-66) he states: The prosperity is gone; the public seek money. "Let them be glutted with money. They will then seek property and the prosperity of the country will return."

⁷ *Letter to Vansittart*, p. 59.

⁸ *Ibid.*, p. 195.

⁹ *Ibid.*, p. 47.

¹⁰ *Considerations on the State of the Currency*, p. 5.

¹¹ *Ibid.*, pp. 21-22.

¹² *Ibid.*, pp. 22-23n.

sumption. An increase in the supply of money would cause a reaccumulation of stocks in each particular trade. It might seem that this would only procrastinate the sufferings of traders whose warehouses were already full. But if the increase of stocks were general, it would occasion a general increase of expenditure (for labor) and a general increase of consumption.¹⁵

Regarding the effect of new government expenditure, he says that it is of little consequence whether Bank notes are issued in this way or in loans to individuals. Relief expenditures are beneficial when they increase the amount of currency brought into action, but not if they relieve misery on the one hand while creating it equally on the other. Government retrenchment, however, would cause unemployment. While eventually the laborers would be employed by private capitalists, and the only difference would be that more would be spent on private ostentation and less on objects of public interest, the readjustment would require time. Meanwhile, those employed through government expenditure, as well as thousands of others, would be thrown out of employment.¹⁴

William Blake takes a different view of the effect of government expenditure upon prices and production. Political economists, he states, have generally held that such expenditure is derived from a fund which would equally have been a source of demand if left in private hands. The error, he believes, lies in their assuming that there is always immediate employment for capital as it accrues from saving. When capital accumulates rapidly it is not always possible to find new ways of employing it. If new wants, new tastes, and new population do not keep pace with the increase of capital, the latter stagnates. Commodities accumulate in warehouses. Government expenditure, however, can open new markets for consumption and give employment to capital otherwise unemployed. Prices then rise and production increases. But, oddly enough, Blake's suggestion for remedying the difficulties existing in 1823 is not that the government should spend more, but that production should be reduced. The natural remedy for agricultural distress is lessened production at higher prices. He advises against

"nostrums" in the form of loans by the government, purchases of corn by the government, or an increase of the currency with a view to raising prices.¹⁵

McCulloch says that the "supply of money cannot be increased without a corresponding increase taking place in prices." However, in explaining the rise of prices ending in 1825 he assumes that the effect of the currency operated through the rate in the money market. The reduction of the rate encouraged individuals to borrow larger sums than usual from the banks, and it encouraged those with moneyed property "to embark in projects which they were taught to believe would yield them a greater return for their capital." Also the long dates for bills encouraged the withholding of goods from the market.¹⁶

Musket stresses the influence of the Bank's issues upon the prices of securities. It is not meant to establish as an invariable rule that a 5 or 10 per cent increase of the currency will affect the price of consols to the same extent, he says, but it would seem that on every increase of currency there is a rise in the price of stock.¹⁷ Discussing the matter further, Musket appears to have in mind only such increases of currency as are made against government securities, loans on stock or mortgage, or against discounts below the market rate. In such cases, he holds, there is a reduction in the rate of interest and a "general spirit of gambling in all money securities,"¹⁸ and in articles of consumption. He makes no attempt to show that the increased demand for commodities is induced by the rise of security prices.

Palmer states very clearly the view that the market rate affects prices by operating directly upon traders' incentives. "The first operation is to increase the value of money; with the increased value of money there is less facility obtained by the commercial Public in the discount of their paper; that naturally tends to limit transactions and to the reduction of

¹⁴ *Observations on the Effects Produced by the Expenditure of Government during the Restriction of Cash Payments* (1823), pp. 43-99.

¹⁵ "The Late Crisis in the Money Market Impartially Considered," *Edinburgh Review*, XLIV (1826), pp. 84-88.

¹⁶ *Effect of the Issues of the Bank of England*, p. 15. See also pp. 142-143.

¹⁷ *Ibid.*, pp. 157-158, 180-182.

¹⁸ *Letter to Vansittart*, pp. 29, 57, 110.

¹⁹ *Thoughts on the Present Distresses*, pp. 44-51.

prices. . . ."¹⁹ Palmer was not referring here to the use of Bank rate to limit the circulation, but to the effect of the market rate upon traders' commitments. However, like many others, he no doubt assumed that the two operated together.

Gurney's position at the Bank Charter inquiry appears similar to Palmer's. A contraction of the Bank circulation tends to reduce prices, he states, because it produces caution in money dealers and through them in commodity dealers.²⁰ At other times not all the Bank notes are being used. The result is low interest and great credit facilities. This "low state of money and these great facilities ultimately produce an extension of the amount of notes that come into operation, and extension of transactions; this extension of transactions after a time operates upon prices, but it is not a very rapid process."²¹ The following year, however, before the Select Committee on Manufactures, Commerce, and Shipping, he argued that the Bank has very limited influence upon prices — especially in producing a rise. If the circulation were adjusted to "requirements," he said, a reduction would affect prices. Also, if the circulation were less than requirements, an increase of it would cause prices to rise. But when there is already an abundance, a further increase would have no effect. Extra notes would simply remain idle in the tills of the bankers, the "natural depository" of surplus notes. The bankers would not buy stock or Exchequer bills with them for fear of losses in case they had to sell. Nor would they make advances upon slight security. More idle funds (in 1833) would not encourage speculation, as there already exist ample means for it. The fall that has occurred in the prices of buildings and produce is not owing to the change in the circulating medium, but to the increase of capital and the reduction of the cost of production resulting from peace in Europe. At another point he claimed that greater facilities in the money market would tend only to permit insolvent concerns to become more insolvent.²²

¹⁹ Ev., 1832, q. 678.

²⁰ Ev., 1832, q. 3526.

²¹ Ev., 1832, q. 3601.

²² Evidence, in *Report from the Select Committee on Manufactures, Commerce, and Shipping*, qs. 268-384, P.P.

Thus Gurney's theory, though it appears to agree with Palmer's as regards the mechanism by which the Bank influences prices, has a great deal in common with the later views of Tooke in emphasizing the limited extent of the Bank's powers.

Loyd does not as a rule concern himself with the mechanism by which an increase of currency causes a rise of prices. But in his *Separation of the Departments of the Bank* he states that an increase of the circulation acts first upon the rate of interest, then — more or less in order — upon the prices of securities, the market for shares, the negotiation of foreign securities, speculation in commodities, and lastly upon prices generally. However, as in the case of many of his contemporaries, Loyd is thinking principally of the *time* sequence and not the exact process by which the rise of prices was produced.²³

Torrens traces the effect of a decline in the currency through the credit structure. In an excellent passage he says: "The cash at the command of the private bankers and bill-brokers being diminished, they would see the expediency of restoring the ordinary proportion between the amount of their immediately available funds and their immediate liabilities, by limiting their discounts and credits, or by disposing of their securities; the merchants and dealers who employed bankers, finding their cash balances reduced, and their accustomed amount of discounts diminished, would abstain from purchases, or dispose of securities to complete them; and from all these several causes the prices of commodities would decline, and the rate of interest advance."²⁴ Thus, despite the fact that he regarded the level of the note circulation as the proper criterion for the Bank to follow, he reasoned that the currency affected prices via the credit superstructure and the money market.

Joplin reasons at times that the currency influences prices by way of the rate. An addi-

1833, vi. In some respects Gurney's evidence reminds one of Walter Stewart's evidence before the Committee on Finance and Industry in 1930. They both argue that, without good prospects of making profits, the expansion of credit leads merely to the piling up of losses.

²³ *Tracts*, p. 253.

²⁴ *Renewal of the Charter*, p. 36.

tion to Bank notes goes into the reserves of London bankers, where it forms the basis for an expansion of their securities and deposits. When an "abundance of money" can be obtained at a cheap rate, he states, it "encourages speculation, speculation gives rise to expenditure, expenditure to income, and income spent, reproduces income; and thus a general promotion of industry and a creation of prosperity and wealth take place throughout the land." On the other hand, when the Bank contracts the circulation, "traders are compelled to reduce their stock of goods and order no more," enterprise is suspended, and labor is unemployed.²⁵

Gilbart states that an "increase in the quantity of money" raises prices by giving the means and the inclination of purchasing a greater quantity of goods for consumption or speculation. Referring particularly to the views of Tooke, he points out that the question is not whether the abundance of money is the *only* cause affecting prices, but whether it is one of the causes. Deposits, when they result from an overflow of the Bank circulation — though apparently not otherwise — have an effect upon prices similar to Bank notes. Bona fide commercial bills, though they frequently discharge payments, have little effect upon prices, since they follow (instead of initiating) the transactions upon which they are based. They are like country notes in this respect. Thus Gilbart seems to hold that credit instruments other than Bank notes are merely neutral: they may be used for making payments but they can not initiate the transactions giving rise to them. In this respect he was very much in the minority. The common view was that credit substitutes were effective in raising prices, though their efficiency varied.

Gilbart evidently determines whether the Bank circulation is excessive by viewing the rate. If the Bank makes money cheap, whether the circulation actually increases or not, it will promote a spirit of speculation which will advance prices.²⁶ At some points in his discussion he implies that the only control over expansion required is a qualitative control. If the Bank were to issue only to satisfy the legitimate

wants of trade, he says, there would be no excess issue or rise of prices.²⁷ But as in the case of most writers who formally take such a position, a great deal depends upon the meaning he attaches to the word *legitimate*. The proof of whether the notes are required, he states, is whether the rate is unduly depressed; and the test of a proper rate depends on circumstances.²⁸ Thus to a considerable extent his differences with the more commonly accepted theory of his time were verbal. Nevertheless he did apparently believe that qualitative control of credit was an effective, even though not the only, guard against inflation, and that the purchase of securities by the Bank was particularly liable to lead to speculation.

The theory of J. W. Bosanquet is in many respects like that of Gilbart; and the theories of both have points in common with the view expressed by the Governor and leading directors before the Bullion Committee.²⁹ Bosanquet starts with the idea that the rate and not the amount of the currency should be the immediate criterion of control. So long as the Bank issues in strict accordance with the demands of the community, "the rate of interest remaining unaltered" (from the required equilibrium rate), the quantity of currency can have no effect on prices. But if the Bank buys or sells government securities and at the same time there is no means by which the public can rectify the amount of the currency (by causing appropriate changes in the amount of discounts), the currency may continue for a time in a state of forced excess or deficiency. Such a condition shows itself first in the money market. When the rate has fallen, there is encouragement to increased borrowing and increased speculation, and the prices of speculative goods rise.

One is reminded to some extent of Wicksell's theory by Bosanquet's further elaboration of his views. "There is a certain average rate of profit upon capital in this country, and there is a certain average rate of interest resulting from

²⁵ Joplin, *Currency Reform*, pp. 46-48.

²⁶ "The Currency: Banking," *Westminster Review*, XXXV (1841), 92-93, 100-108. Ev., 1841, qs. 983, 1030.

²⁷ Ev., 1841, qs. 956, 1027, 1160.

²⁸ Ev., 1841, qs. 996, 1001, 1087 *et seq.*

²⁹ Whitmore and Pearce, however, formally denied that the rate charged by the Bank had anything to do with preventing over issue (Ev., 1810, pp. 97-98). But they used other means along with the rate to limit expansion.

it, which in the long run may continue to be paid, though it is difficult to determine with precision what that rate may be." When money, or the means of procuring capital, "is offered below that rate, it stimulates over-issue, and high prices; when above it, it produces deficiency and low prices." If money could be procured permanently at 1 per cent, what enterprising person would not be anxious to extend his operations of trade on borrowed capital, thereby increasing the competition for goods in the market? On the other hand, the most active and enterprising could not afford to pay 10 per cent for any length of time. The object then is to ascertain what the average (or equilibrium) rate is. Bosanquet believes that in England it is 5 per cent. But he adds that there is no charm in the figure *five*; the required rate varies according to the times and from one country to another. Moreover it varies within the country according to the type of loan. The rate on government stock is generally a little more than 3 per cent; on landed security it is nearer 4. Some bills of exchange are discounted at 4 per cent while others are discounted at 6 or 7. If the Bank were to lend against government securities, the rate should be $3\frac{1}{2}$ per cent.⁸⁰ But such a procedure would be inconvenient to trade. A more convenient mode would be for the Bank to discount commercial bills, and the average rate on such bills as are taken by banks is 5 per cent.⁸¹

Though Bosanquet is seeking a neutral money, he states that under his plan prices would continue to vary. But the evil, he claims, would not be in the currency. He seems to view the equilibrium rate as a kind of historical average, and offers no clear-cut method for determining whether such a rate turns out to be correct. In this respect he differs from Wicksell, who practically defines his natural rate as one to which the loan rate must conform in order to maintain average prices at a stable level.

We may conclude at this point that, in the view of those who believed that the Bank could affect prices in a dependable way, an increase

in the supply of currency and credit substitutes was associated, or tended to be associated, with a change in the rate. But to an increasing extent the rate was taken as the point of departure in discussing the regulation of prices. Such a point of view was quite natural for London merchants and bankers to take. They regularly issued their own bills, and they held in reserve large amounts of the bills of others which they could convert into cash as need arose. Consequently relaxation presented itself to them in the form of lower rates.

2. *Theories Denying the Bank's Influence on Prices through the Circulation or through Cheap Credit*

Since Tooke was generally regarded as the leading authority for the view that prices were not governed either by the amount of the circulation or by conditions in the money market, particular attention will be given to his position. His evidence in 1832 shows the transition from his earlier views. He admits first that, "other things being the same, variations in the amount of the circulating medium have a tendency to influence prices." But further on he states that, historically, a rise or fall of prices has preceded the enlargement or contraction of the Bank circulation and therefore could not be the effect of it. An increase of Bank notes might only swell the reserves of the bankers.⁸² Such statements might mean merely that credit conditions conducive to a rise of prices would not necessarily be reflected to begin with in a change in the circulation.⁸³ But a few years later he takes Hume to task for holding that a low rate stimulates speculation in commodities.⁸⁴ He defines speculation (for this purpose) as purchases by regular dealers beyond the usual proportion to their credit, or by persons outside the trade. The inducement to speculate, he claims, is the expectation of an advance in the price; not the facility of borrowing.⁸⁵

⁸⁰ *Ev.*, 1832, qs. 5439, 5449, 5454.

⁸¹ He argued also that an increase of deposits would not influence prices (*Ev.*, 1840, q. 3303).

⁸² *History of Prices*, III, 144-171.

⁸³ *Ibid.*, pp. 153-154. "Few persons of the description here mentioned ever speculate but upon the confident expectation of an advance of price of at least 10 per cent.; the instances are rare in which an advance to that extent would hold out any inducement to speculate, in the sense

⁸⁴ Gilbert, on the other hand, objected to Bank advances against government securities on the ground that they promoted speculation.

⁸⁵ Bosanquet, *Metallic, Paper, and Credit Currency* (1842), pp. 65-76.

Although Tooke's general conclusion is that prices are not governed by the cost of credit, he makes many statements which do not support such a conclusion. He admits that "if there exist grounds for speculation in goods, a coincident facility of credit *may*, but will not *necessarily*, extend the range of it."⁸⁶ (By facility of credit he means either low rates or the ability to obtain advances on slight security.) But, as Hawtrey points out, there is never a time when no one considers that he has a motive to buy for a rise. As long as markets are open, traders are buying as well as selling.⁸⁷ Tooke would claim that they were not "speculating," however, unless they were buying for a considerable rise. Thus his conclusion depends upon his unwillingness to recognize small gradations of the motive to speculate.

He makes other concessions which are not in keeping with his general conclusion. Discussing the easy credit policy of the Bank in 1836, he admits that low rates may have been connected with excessive credits to America, promoting there an increased demand for English manufactures and raising prices in England.⁸⁸ He also refers to the effect of the rate on the formation of new enterprises. "It must be quite evident that, as a fall in the rate of interest favours projects which hold out to subscribers the prospect of an improved income, so a rise in the rate of interest is necessarily attended with a fall in the value of projects in actual operation, and with discouragement to the formation of new ones. But these effects of variations in

the circulation and in the rate of interest, on the prices of securities, have no analogy in the markets for commodities."⁸⁹ If Tooke had only noted that the formation of new projects increased the demand for commodities his analysis would bear considerable resemblance to those of Cassel and Keynes.

After all these concessions, it would seem that there was little left to his theory that the rate did not influence prices. But there can be no question that his real objective was to prove that there was no connection which was at all significant for purposes of monetary control. In his *Inquiry into the Currency Principle* a few years later he reaffirms his belief that the currency theory and the "money market theory" of prices are equally in error.⁴⁰

Tooke really had *no* theory to explain how monetary causes were related to prices. In discussing the "ultimate regulating principle of money prices," he says:

It is the quantity of money constituting the revenues of the different orders of the state, under the head of rents, profits, salaries, and wages, destined for current expenditure, according to the wants and habits of the several classes, that alone forms the limiting principle of the *aggregate of money prices*, — the only prices that can properly come under the designation of *general prices*. As the cost of production is the limiting principle of supply, so the aggregate of money incomes devoted to expenditure for consumption is the limiting principle of demand for commodities.⁴¹

One looks in vain for a statement of how monetary causes are related to incomes. Though Tooke states that an increase in the world sup-

of the word here assumed. Take wheat for example, one of the most usual and prominent of the articles of produce for speculation, and at an average price of about 50s. Now I never heard of any person characterised as a speculator, not a jobber, who would think the risk of loss compensated by so small an advance as 5s. per quarter, looking to hold it for three months. But the utmost difference between the rate of discount of 3 per cent. and 6 per cent., namely, 3 per cent. per annum, for three months, would on a quarter of wheat amount only to 4½d. per quarter, a difference which, I will venture to say, never induced or deterred a single speculative purchase."⁸⁶

⁸⁶ *Ibid.*, p. 166.

⁸⁷ *Art of Central Banking*, pp. 158-159.

⁸⁸ *Ev.*, 1840, q. 3176. Palmer had stated that the Bank in 1838 had exported £1,000,000 in gold to America for its own account with the hope of restoring specie payments there and reviving trade, and so of stimulating the demand for British manufactures (*Ev.*, 1840, qs. 1327-31).

⁸⁹ *History of Prices*, III, 165-166. In volume IV (p. 294) Tooke claimed that the low rate facilitated railway speculation in 1844-45.

⁴⁰ *Inquiry into the Currency Principle* (1844), p. 85. He gives much the same argument as in the third volume of his *History of Prices*. He again concedes that "laxity" in extending credits might have an influence on prices under some circumstances. But he is not at all thinking of the normal mechanism of monetary control (chs. xii and xiii). In the fifth volume of the *History of Prices* (p. 584), he says that, in certain states of the market, higher discount rates may influence prices by forcing the sale of goods held by means of borrowed capital. Hawtrey, in referring to this passage, states that Tooke's view of the effect of an increase of the rate did not differ widely from his own (*Art of Central Banking*, p. 367). This is true of the particular statement. Nevertheless the general conclusion which Tooke drew was the opposite of Hawtrey's.

⁴¹ *History of Prices*, III, 276. See also *Ev.*, 1840, qs. 3297-3300.

ply of bullion would influence world prices he does not explain the *modus operandi*.⁴² His theory of credit operations leaves no place for any. He insists that any increase in the supply of bullion in England would go to the Bank, and that the Bank in buying gold or securities would not force either coin or notes into circulation.⁴³ There would be a reduction of money rates, but the reduced rates, according to his reasoning, would not influence commodity prices.

Mill was obviously much influenced by Tooke. In his review of Torrens's book in defense of the Currency Principle and of Tooke's book opposing it, he gives nearly all of his attention to Tooke's.⁴⁴ For it he has only words of praise.

The limit to possible demand, he holds, depends not only upon the amount of notes and deposits in people's possession but upon any other sums payable on demand and upon any "credit" they may possess. "Credit" in this context means potential borrowing from both banks and traders. The portion of their "purchasing power" which people use depends upon their necessity and upon their expectation of profit. He admits that an "extension of credit, legitimate or illegitimate, tends, in proportion as it is made use of, to a rise of price." But his position seems to be that a reduction of the rate can not supply the *motive* for increasing outlay. He gives no consideration to the possibility that the other factors might be so evenly balanced that a change in the rate would be the deciding factor for a certain margin of expenditure. In agreement with Tooke, he states that the Bank can influence the rate of interest and the prices of securities, but he fails to note any connection between the prices of securities and the demand for commodities.⁴⁵

⁴² Ev., 1840, qs. 3295-3303.

⁴³ *Currency Principle*, pp. 61-63.

⁴⁴ J. S. Mill (unsigned article), "An Inquiry into the Currency Principle, by Thomas Tooke; and An Inquiry into the Practical Working and Proposed Arrangements for the Renewal of the Charter of the Bank of England, by R. Torrens," *Westminster Review*, xli (1844), 579.

⁴⁵ *Ibid.*, pp. 589-596. In his *Principles of Political Economy* Mill takes much the same position as in his article in 1844. But he now states that the possibility of issuing bank notes permits an expansion of credit, and therefore a rise of prices, to go to greater lengths than they would otherwise

Fullarton's purpose also is to emphasize the lack of control by the Bank over commodity prices. But the lack of control in his view is owing to the inability of the Bank to control the money market.⁴⁶ Unlike Tooke, he stresses the importance of the market rate of interest upon speculation and the starting of new enterprise. He states first that the interest which a speculator has to pay if he uses borrowed capital, or which he must forego if he uses his own, though only one element of cost, constitutes an important item in his calculation of profit. It is implied that a temporary reduction of the rate would affect the speculator's willingness to make commitments.⁴⁷

But the "real incentive to speculation," he believes, "whether in the more hazardous class of securities or in merchandise, lies deeper than this." The amount of capital seeking investment in ordinary times is in excess of the means of employing it. Competition for securities in favor for their safety and convenience raises their price. Higher prices for securities are identical with a lower rate of interest. Capitalists are so eager to obtain better rates of return that they buy shares in new projects though they involve greater risk. Speculation then spreads

(*Principles*, bk. iii, chs. xii, xxiv). He takes the same position before the Committee on the Bank Acts (Ev., 1857, q. 2031). (In his article (p. 593) he denied that preventing an increase of bank notes "would either arrest the rise, or moderate the subsequent revulsion.") While formally he adheres to his old position that increased credit facilities do not *originate* an increased demand for commodities, he stresses much more the point that they *make possible* an increased demand.

Mill makes much more of another point in his later statements. Bank issues, he says, never "originate" a rise of prices so long as they are advanced to merchants and dealers, since they are then used for fulfilling previous engagements. But the operation is different when the advances are made to manufacturers and others for paying wages. The notes then get into the hands of laborers and others who spend them for consumption; and in that case they "do constitute in themselves a demand for commodities" and may for some time tend to promote a rise of prices (Ev., 1857, q. 2066). See also *Principles*, Ashley ed., pp. 655-656. Cf. article cited, *Westminster Review*, xli, 589n. He seems to mean not merely that the possibility of issuing notes for wage payments postpones the demand on the Bank's reserve, but that the particular use of the notes gives them a power of originating a rise of prices which they would not otherwise have.

⁴⁶ See Chapter III, above.

⁴⁷ *Regulation of Currencies*, pp. 161-162.

from securities to goods. Fullarton makes no attempt to show that the increased demand for goods is caused by the new projects; though he quotes Craig to the effect that the decline in the rate on deposits in Scotland caused depositors to lend to builders and in some cases to become builders themselves.⁴⁸

Unlike Bosanquet and most contemporary writers, Fullarton did not consider that the reduction of the rate necessary for promoting expansion was due to monetary causes — or at least not for the most part. It was owing to a plethora of real capital. Moreover he seems to have considered that the additional undertakings would merely involve greater risk — being projects not required — rather than a change to more capitalistic methods of production.

3. Conclusion

In contrast with later writers, particularly those of the early twentieth century, the older writers and financiers made no effort to give a mathematical formulation to the relation of prices to money and the other factors in the equation of exchange, but adhered to the language of the market. This was not because they were unfamiliar with the concept of the rapidity of circulation or the requirement of a given cash balance in relation to the amount of income and outlay. They apparently considered that not all the various factors which might influence prices could be stated in a simple form. I believe the older approach was more realistic than the one through the Quantity Theory equation. The latter approach leaves in the background (a) the analysis of the actual procedure by which the monetary authorities may bring their influence to bear, (b) the criteria for determining to what extent monetary measures are effective, and (c) the motives of those who administer business to change the volume of commitments.

Contemporary writers were not interested primarily in the exact process by which monetary measures produced a rise of prices. It is true that some regarded Bank rate as a mere instrument for varying the amount of Bank notes. But not even the Currency School considered that prices were determined directly by the volume of currency: the effect of changes

in the latter operated through the credit superstructure and the money market. As has been pointed out, there was an increasing tendency to take the rate as the point of departure in discussing the mode of producing a change of prices, but this was because the rate was the more obvious indication to traders and bankers of whether money was abundant. I do not believe they were concerned with whether the size of balances or the level of the rate was the direct incentive to monetary outlay. What they were concerned with in this connection was the criterion which the Bank should follow in regulating credit.

Did the older writers raise the question whether the market rate in order to induce expansion must be less than the "natural rate"? They did not as a rule discuss the problem in that form. For the most part they stated simply that cheap credit tended to promote an increase of purchases, but I believe they assumed implicitly that credit was to be considered cheap or not according to circumstances. It must be remembered that the "natural rate" does not afford an objective criterion for regulative action. Indeed it was the essential weakness of Bosanquet's theory that he assumed that the Bank could determine the proper level for the discount rate independently of business developments. It seems doubtful, therefore, whether the theories of the older writers would have gained by defining elaborately the "natural rate." Such a rate turns out to be nothing more than one to which the market rate must conform in order to maintain equilibrium defined in some other way. What needs to be understood is that a rate is not to be judged high or low arbitrarily.

As regards the points at which the economic system was assumed to be sensitive to the rate, we have seen that Thornton, Palmer, Gurney (at times), Loyd, Bosanquet, and even Fullarton supposed that a reduction of the rate would affect the outlay of commodity dealers. There was nearly universal agreement that the rate affected the prices of securities. Tooke and Fullarton pointed out that the prices of securities would in turn affect the starting of new enterprises; though Tooke denied that this would lead to a rise of commodity prices. Fullarton moreover did not view the low rate as

⁴⁸ *Regulation of Currencies*, pp. 162-165.

owing to monetary causes. However, it was a very common opinion that "bubble" enterprises were encouraged by excessively cheap credit.

The weight of opinion was much more to the effect than it is today that cheap credit would lead to business expansion and a rise of prices. Hubbard, Tooke, and Mill were very much in the minority in this respect, and even they made admissions damaging to their view. The careful search for points in the economic sys-

tem which are sensitive to cheap credit proceeds probably from a doubt as to whether they exist. One suspects that the reason why the older writers did not take more interest in this problem was that generally they had faith that an expansion of credit would easily produce a rise of prices. Their chief concern was to avoid having a rise of prices which would upset the country's international equilibrium and then produce a crash.

CHAPTER V

PUBLIC DEPOSITS, ADVANCES TO THE TREASURY, AND QUARTERLY ADVANCES TO THE MARKET

THAT the condition of the money market had an important connection with the Treasury's operations is evident when it is observed that the Treasury frequently absorbed funds during a financial quarter equal to half the Bank circulation in London or equal to several times the amount of the London bankers' balances at the Bank. The Treasury did not make the same effort that it makes today to avoid influencing the amount of bankers' cash by varying the floating indebtedness held by the market.¹ Though the variations in advances were to a large extent seasonal after 1825, they were not so altogether. In addition, practically all the balances of government funds were kept at the Bank and these likewise varied widely. It is of course the net position of the Treasury at the Bank—the difference between deposits and advances received—and changes in the net position which are significant from the standpoint of the money market.

During the period of war and postwar financing the Bank officials were well aware that the accumulations and releases of funds by the Treasury had an uninterrupted effect on the money market. And as late as 1832 Gurney and some of the directors showed that they appreciated this fact. After that time the general position of the officials was that advances to the Treasury (together with changes in the public balances) gave rise merely to a seasonal problem and that it was the Bank's purpose merely to *neutralize* their effect on the money market. But as a matter of fact the procedure followed by the Treasury together with the Bank's granting of temporary advances to the market played an important part in the general

control of credit. I shall try to show that both the temporary advances and the indebtedness of the Treasury at the Bank were routes by which the market could adjust its position at its own initiative, the Bank and the Treasury setting the terms of credit.

No part of our subject is so clouded with details as the connection between the Treasury's operations and the money market, so it seems desirable to begin with a brief discussion of procedure. Then in the section following that we shall give particular attention to the seasonal release and absorption of funds by the Treasury and related factors. The seasonal relationships throw a good deal of light on the semi-automatic adjustment of the reserves of the London banks to the demand. Moreover, contemporary discussion can be understood only if one is familiar with the seasonal variations, for the problem was regarded as essentially seasonal.

1. *Statement Concerning Procedure*

The Exchequer deposit at the Bank was only a general fund. In addition, the paymasters general, the receivers general, and various other public officers and their subordinates held large balances of public money, practically all of which were in deposits at the Bank.² The dividend deposit or Audit Roll was a credit set up at the beginning of each quarter from the Ex-

¹ According to Eugen von Philippovich, the various pay offices were required to keep their balances at the Bank as early as 1783 or soon after. In 1806 the Excise, Stamp, Post, and Customs offices were ordered to pay into the Bank the money they received except for small sums for current expenses. (*History of the Bank of England and Its Financial Services to the State*, 2nd ed., 1911, pp. 185-186.) For a list of the various public deposits maintained in 1819, see Report, H.C. 1819, app. 9. Compare with the list given in P.P. 1861, (12), XXXIV, 16.

² See the evidence of Sir R. V. N. Hopkins, before the Committee on Finance and Industry, 1930.

chequer deposit, and from advances from the Bank when necessary, for the payment of the warrants for the dividend on the government debt. In a certain sense it was a portion of the Exchequer deposit designated for a special purpose.

Not all deposits maintained by public functionaries were classed as public deposits. The Chancery and Bankruptcy accounts, for example, were reported by the Bank as private deposits. So also was the account of the East India Company.³ The account of the Commissioners of Savings Banks, on the other hand, was classified as a public deposit.⁴

The amounts of the different classes of Exchequer bills issued and paid off by the Treasury during each financial year are given in a table at the end of this chapter. These data, which include bills issued to the market as well as to the Bank, may be compared with those of the Bank's holdings at particular dates as shown at the end of Chapter VII and in Charts Iva, Irb, and Ix in the Appendix.

The procedure by which the Bank made advances to the Treasury was of course regulated by statute.⁵ The advances regularly made were classified on the same basis as the appropriations

of public funds.⁶ *Deficiency bills*, beginning in 1817,⁷ were authorized to be issued whenever the balance in the Consolidated Fund⁸ at the end of the financial quarter was insufficient to meet the *permanent* charges against it. They were issued at the beginning of the quarter subsequent to the one in which the deficiency occurred, and were paid off during the remainder of that quarter as the income to the Consolidated Fund made possible. These bills were issued only to the Bank, though Anderson states that it is not improbable that they were intended originally to be resold to the public, since they

³ Appropriations were divided into two general classes: permanent grants and annual grants. The first category required no annual renewal of authority but became permanent charges against the Consolidated Fund. The most important of these were interest on the permanent debt, salaries of judges and certain other independent officers, and annuities to members of the royal family and other distinguished persons. Annual grants, on the other hand, were made by Parliament for the support of the army, navy, and civil services, and for the payment of interest on the unfunded debt. See Memorandum on Financial Control, *Report from the Select Committee on Public Monies*, 1857, app. 1, pp. 25-26 (P.P. 1857, Second Session, (279), Ix). The memorandum was written by William Anderson. See also Josef Redlich, *Procedure of the House of Commons* (1908), III, 159-172.

⁷ Deficiency bills were authorized by 57 Geo. III, c. 48, which was a permanent act. Before 1817, when the balance in the Consolidated Fund at the end of the quarter was insufficient to meet the quarterly charges, an advance was made "out of the aids or supplies of the year" (Report on Public Income and Expenditure, 1868-69, part II, p. 519). This involved an advance from the Bank charged on Aids or Supplies when the balance in the Exchequer was insufficient to meet the withdrawal.

⁸ The Consolidated Fund was formed in 1787. Only the permanent duties were assigned to it and only the permanent grants were charged directly against it, though the surplus beyond the permanent charges became available for Supply services. During the war and for some time later a large portion of the revenue consisted of annual duties, and so was directly applicable to Supply services without passing through the Consolidated Fund. By 1830, however, few of the annual duties remained, and by 1846, all the revenue was raised by permanent enactment. Consequently the whole income was carried to the Consolidated Fund and all Ways and Means for Supply services were derived from the surplus after the permanent charges. However, amounts raised on Supply bills and until 1855 amounts raised from permanent loans were part of the annual Ways and Means and did not go to the Consolidated Fund. Also, Supply bills were redeemed out of Ways and Means voted for Supplies instead of being charged against the Consolidated Fund. (Memorandum on Financial Control, cited above, pp. 25-26; Report on Public Income and Expenditure, 1868-69, part II, p. 520.)

¹ A report from the Treasury in 1861 listed twenty-four such government accounts which were classified as private deposits for the Bank return. The list included the accounts of the Master of the Mint, the Poor Law Board, and the Registrar of the High Court of Admiralty. The Council of India account, however, was changed to a public deposit in 1858. See Correspondence between the Chancellor of the Exchequer and the Bank of England, P.P. 1861, (12), XXXIV, 7-16. Cf. Weguelin, *Ev.*, 1857, qs. 156, 406-431; and Report of the Committee on the Bank Acts, 1857, app. 35.

⁴ This account represented funds paid into the savings banks and awaiting investment in the public funds.

⁵ The Act of 1819 (59 Geo. III, c. 76), which merely continued existing laws to the same effect, prohibited the Bank from making any advances to the government or from buying any Exchequer bills without the consent of Parliament. But actually Parliament always gave the necessary consent: by permanent enactment for advances for Consolidated Fund services, and by temporary enactments for Supply services. That the general law was no practical hindrance to the Treasury's borrowing from the Bank is shown by the fact that in "nearly every" Exchequer Bill Act from 1797 the Bank was authorized to advance the whole or a portion of the amount of bills to be issued (Report on Public Income and Expenditure, 1868-69, part II, pp. 518-519, P.P. 1868-69, XXXV). This was in addition to the other advances enumerated.

were made payable to the Bank "or to their order." But they were not in fact negotiated, he says, and could not have been without interfering with their repayment from day to day.⁹

Let us turn to advances for Supply services. Until 1832 the Treasury issued to the Bank Exchequer bills in anticipation of certain *annual revenues*, such as the malt and sugar duties. These bills, which were for relatively small amounts, were of course paid off out of the proceeds of those duties.¹⁰

Ways and Means bills were also issued to the Bank for Supply services, but they were charged against the Consolidated Fund. By 1830 most of the revenue was applicable to the Consolidated Fund, and consequently most of the Supply charges were met from its surplus (after the permanent charges). Parliament, therefore, in that year¹¹ and in subsequent years authorized the Bank to advance whatever was required to make up the difference between such Ways and Means appropriated and the surplus (in the Consolidated Fund) available for covering them. These bills were repayable from the Consolidated Fund during the quarter next succeeding that in which they were issued (in contrast with Deficiency bills, which were repayable during the quarter in which they were issued).¹² Ways and Means bills in effect superseded the bills issued in anticipation of annual duties, though there was a period of three years when both kinds were issued.

Supply bills were issued for Supply services and for paying off outstanding Exchequer bills.¹³

⁹ Memorandum on Financial Control, 1857, p. 39. However, Deficiency bills, as well as other Exchequer bills, were sometimes taken over from the Bank by the Sinking Fund. See tables in the Report on Public Income and Expenditure, 1868-69, part ii, pp. 25-225.

¹⁰ Cf. Philippovich, *History of the Bank of England*, pp. 189-190.

¹¹ See 11 Geo. IV, c. 2.

¹² See Anderson's Memorandum on Financial Control, 1857, pp. 40-41. See also report on Public Income and Expenditure, 1868-69, part ii, p. 520. Ways and Means bills were frequently referred to as Consolidated Fund bills. They are not to be confused with the Deficiency bills reported in the Bank returns under "Advances for the Quarterly Charge of the Consolidated Fund." E.g., Report, 1840, app. 17.

¹³ The issue of Supply bills was regulated by 48 Geo. III, c. 2; 4 and 5 Will. IV, c. 25; and 5 and 6 Vict., c. 66. See Memorandum on Financial Control, 1857, p. 41.

In contrast with the three classes of bills just mentioned, which were issued only to the Bank, Supply bills were sold to the market, and the Bank's holdings were therefore listed as "Exchequer bills purchased." But as a matter of fact the Treasury sometimes requested the Bank to buy them in order to support the market. Until 1838 they were receivable at par for taxes from the 5th of April next after their date of issue, and the Treasury undertook to maintain them at a premium in order to prevent their being returned in the revenue. After 1838 it was not necessary for the Bank to support them for this purpose, since they could not be paid in for taxes until after a year from their date of issue, and they were usually called in for redemption or exchange before then.¹⁴ However, to the extent that the offerings were not taken by the public, the Treasury had the choice of requesting the Bank to buy them, or of redeeming them in cash out of Ways and Means voted for Supplies and then of obtaining advances from the Bank for the public services. The difference was only one of form. During the war period nearly all of the Exchequer bills purchased by the Bank represented in effect advances at the initiative of the Treasury.¹⁵ But owing to the increase of advances in other forms and to the easing of market rates (associated with the general liquidation of credit), the Treasury after 1826 had less occasion to request the Bank to buy Supply bills. However, there was always the possibility of obtaining aid in that form if occasion required.¹⁶

The Chancellor of the Exchequer in his official request for advances proposed the rate which he desired to pay and the Bank directors nearly always accepted this rate. But on rare occasions they refused, as they had the *legal* right to do.¹⁷

The question arises whether the statutes in

¹⁴ See Anderson's discussion, Memorandum on Financial Control, 1857, pp. 41-43.

¹⁵ Memorandum Respecting the Issue and Purchase of Exchequer Bills by the Bank, Report, H.L. 1819, app. A3.

¹⁶ See the discussion in Chapter VII, section 1.

¹⁷ The Bank in 1840 refused F. T. Baring's request for Ways and Means advances at 2d. per diem on the ground that it was selling bills in the market bearing a rate of 2¼d. and would therefore be subjected to a loss. Baring agreed to the higher rate (P.P. 1841, Session January to June, (28), xiii).

providing for the Treasury's borrowing from the Bank under certain conditions led to adventitious releases of funds to the money market through the Treasury. I believe they may have encouraged the Treasury to some extent to depend upon the Bank as against the market, but they did not dictate its policy in this regard. The Treasury, as far as the legal arrangements were concerned, was free to raise funds from the market and thus reduce the amount of Deficiency or Ways and Means bills required to be sold to the Bank. As I shall attempt to show later, it was the unwillingness of the market at times to absorb all the Supply bills offered that was the really important factor causing the Treasury to increase its demands upon the Bank. There was to some extent an arbitrary enlargement of the Treasury's indebtedness to the Bank owing to the legal inability under certain circumstances to utilize the Exchequer deposit for cancelling indebtedness before a given time.¹⁸ But it should be borne in mind that the extra indebtedness to the Bank did not release funds to the market, since it was offset by the extra deposits which were temporarily unavailable. There was a question only of convenience to the Treasury.

We come now to the consideration of the procedure by which the Bank sought to counteract the seasonal accumulation of funds by the Treasury and their subsequent repayment to the market. According to Samuel Thornton it was the practice of the Bank during the period before 1819 to buy Exchequer bills to a greater extent than usual during the part of the quarter when the accumulation of the revenue was

greatest and when money therefore tended to be scarce.¹⁹ Such a practice, however, was not so common during the 'twenties, probably because the Bank considered that the market was adequately supplied with funds without such seasonal purchases.²⁰ Beginning in 1829 the Bank offered by public notice to make temporary advances to the market at a rate ordinarily below discount rate during the part, approximately half, of each financial quarter when the Treasury was taking funds from the market. The time at which they became available varied, but in general they began before the accumulation of funds had gone very far and were required to be repaid within about six to sixteen days after the dividend on the government debt became actually available.²¹ The advances were for amounts of not less than £2000 and for periods of not less than ten days.²² The collateral required varied, but, except for a very short period, bills of longer term than were eligible for discount could be pledged, and during most of the period through 1844 certain types of investment securities also could be used. The Bank changed the collateral requirements with the idea of limiting the amount of advances, for the requirements were more strict when rates were high.²³

The rate on advances was less than Bank

¹⁸ *Ev.*, H.L. 1819, q. 64.

¹⁹ It is possible that the Bank found other methods of easing the seasonal tension, but since weekly accounts are not available until 1832 the point can not be determined.

²⁰ See Appendix, Chart XII. Where the curve of advances is continuous the advances were available to the public; where the curve is broken they were not available to the public, though in some cases they were available by private arrangement even then.

²¹ Page, *Ev.*, 1840, q. 899; Report, 1840, app. 19; Report, H.C. 1848, app. 10.

²² The notice of March 8, 1832, for example, specified bills of exchange, Exchequer bills, East India bonds, and "other approved Securities." Government stock was not included until August, 1835. The notice of March 2, 1837 restricted eligible collateral to commercial bills and the restriction was not removed until the notice of November 29, 1838. A similar restriction was applied again in the notice of June 20, 1839 and again removed February 27, 1840. The latter notice restored East India bonds and Exchange bonds but not other securities. The term of bills which could be pledged was not always specified, but it is to be presumed that long bills were eligible collateral where not specifically excluded. Notices of March 2 and June 1, 1837 excluded bills of more than ninety-five days to run, but a supple-

²³ Let us consider some possible examples. Before Deficiency bills were authorized in 1817, a surplus in the Consolidated Fund could not be used to repay indebtedness incurred on account of a deficiency in the previous quarter, but was required to accumulate until the end of the quarter in which the surplus arose. Thus both the indebtedness and the Exchequer balance were arbitrarily enlarged during that quarter. This difficulty was remedied by the Act authorizing Deficiency bills, which could be charged against the Consolidated Fund as the incoming revenue made possible. See Report on Public Income and Expenditure, 1868-69, part II, p. 519.

Ways and Means bills, as we have seen, were not repayable until the quarter following that in which they were issued, but as a rule Deficiency bills, which were repayable as soon as the revenue permitted, could be used to reduce the Exchequer balance.

discount rate except during periods when the Bank evidently desired to restrict, in which case the two rates were the same.²⁴ But even then the advances were of some advantage to the public, for certain classes of borrowers would have had to pay a higher rate than Bank rate if the market had been forced to discount appreciable amounts at the Bank.

2. *Seasonal Release and Absorption of Funds by the Treasury and Related Changes*

It is difficult to follow the net release and absorption of funds by the Treasury by examining individually the accounts through which they occurred. In order, therefore, to show the weekly net position of the Treasury I have added together the Exchequer and dividend deposits and from their sum subtracted Deficiency bills together with "other advances on Exchequer bills" (mostly Ways and Means advances for Supply services). In the chart in the Appendix I have called the resulting figure the "Net Due to Treasury."²⁵ Strictly, other public deposits should have been included in so far as they were true government accounts, but since there was some doubt as to where to draw the line, and since in any case the variations in other government accounts were small in comparison, I have used only the Exchequer and dividend deposits. Negative figures for "Net Due to Treasury" indicate that the Treasury was receiving advances in excess of the Exchequer and dividend deposits, and may be viewed as a kind of overdraft. A decline in the curve means that the Treasury is releasing funds to the market and a rise that it is absorbing funds.

The principal cause of the seasonal change in the Treasury's position at the Bank was the payment of the dividend on the government debt.²⁶ The financial quarters ended the 5th of

January, April, and July, and the 10th of October, and on the day following the Treasury paid the Chief Cashier of the Bank the full amount of the dividend by drawing on the Exchequer balance and, to the extent necessary, by issuing Deficiency bills. This amount was carried by the Bank as a liability to the public creditor and was called the dividend deposit or Audit Roll.²⁷ On the 8th of January, April, and July, and the 13th of October (though sometimes a day later), the London banks and the public could obtain payment in Bank notes or deposit credits, two to three days being required by the public for obtaining their warrants after the books were opened.²⁸ The larger portion of the dividend was claimed immediately by the London banks (for their own account and for the account of their customers) and the remainder by the public in the course of the next few weeks.²⁹

Within four or five weeks after the dividend

and October until 1844, after which the situation was rather reversed. (See P.P. 1847, (415), XXXIV, and the figures below.) These facts help to explain the yearly pattern of the curve "Net Due to Treasury."

AMOUNTS OF THE QUARTERLY DIVIDENDS
(in millions of pounds)

	1843	1844	1845
Jan. 6.....	8.5	8.4	5.8
April 6.....	4.4	4.4	6.5
July 6.....	8.5	8.4	5.8
Oct. 11.....	4.4	5.6	6.5

²⁷ In 1854 the Treasury instead of paying the whole dividend to the Chief Cashier on the first day of the quarter, began the practice of paying only such amounts from day to day as were considered ample to meet the actual disbursements by the Bank. The object of course was to reduce total interest on Deficiency bills issued to the Bank. The Bank officials claimed that this practice violated the Loan Acts, but the Attorney General, the Solicitor General, and the Lord Chancellor upheld the Treasury. See Correspondence between the Chancellor of the Exchequer and the Bank as to the payment of the dividends, P.P. 1854-55, (465) and (182), XXX. See also Weguelin, *Ev.*, 1857, q. 145; and Report on Public Income and Expenditure, 1868-69, part ii, p. 519. From the standpoint of monetary analysis it is of no importance whether the dividend deposit is regarded as a legal liability to the public creditor or to the Treasury.

²⁸ To avoid discrimination, the Bank would not pay the London bankers, who first had access to the books, until the general public had the opportunity to receive their warrants (P.P. 1854-55, (465), XXX, 15).

The delay in paying the dividend after the Treasury had provided for it in the dividend deposit explains why public securities were large for a few days at the same time that public deposits also were large.

²⁹ Weguelin, *Ev.*, 1857, qs. 145-151.

mentary notice permitted bills of six months, and they were authorized in all later notices through the period ending in 1844. (Report, H.C. 1848, app. 10.)

²⁴ See Chart B, pp. 92-93.

²⁵ Chart XII, Release and Absorption of Funds by the Treasury and Important Related Factors.

²⁶ The Treasury's position was affected also by the time at which the revenue was collected. Collections were largest in the latter part of the year. The payment of Supply charges was also a factor. And it should be noted that the January and July dividends were larger than those of April

payment began, incoming revenue exceeded funds released. Funds were absorbed first in the redemption of Deficiency bills, and Ways and Means bills if there were any redeemable, and then in the enlargement of the Exchequer balance. The seasonal pattern of the release and absorption of funds by the Treasury was of course the same whether the dividend was paid from the Exchequer balance or by the issue of Deficiency bills to the Bank provided any given plan was followed regularly.

The main factors associated with the seasonal release and absorption of funds by the Treasury were changes in the London circulation, London bankers' balances, and the Bank's temporary advances to the public.³⁰ As funds were released, for example, bankers' balances and the circulation were increased and advances to the public were repaid.

The question now arises to what extent the reserves of the London banks were affected by the release and absorption of funds by the Treasury. The reserves of the London banks during this period consisted largely of Bank notes and so a change in the London circulation reflects both a change in the reserve position as well as a change in the public's holdings. Everything considered, I believe that only a small part of the increase coming at the time the dividend was paid, probably less than £500,000, represented increased note holdings of the public. This belief is based partly upon the fact that increases in the London circulation were large when increases in London bankers' balances also were large. It is based also upon the fact that, during the years for which the notes were classified by denominations, much the greater part of the increase was in denominations over £5, and therefore held more largely by the bankers.³¹ Furthermore, modern experience leads us to believe that the seasonal demand for notes by the public would be highly regular instead of showing very much smaller changes in some years than in others, as the London circulation did. It is also to be noted that the country circulation of the Bank showed no important increase at the time the dividend was

paid, though the proportion of the dividend received in the country must have been large. Finally, after 1853-54, when London banks began paying clearing balances with checks on the Bank instead of with notes, and when the joint stock banks were admitted to the Clearing House, the increase of the circulation at the time the dividend was paid became much smaller on the average. Presumably the change was owing to smaller increases in the note holdings of the banks.

Apparently the banks were prepared to see some seasonal variation in reserves without making undue efforts to correct the situation. But there evidently was a minimum requirement below which they were not willing to go, so that if their reserve position was not strong when the Treasury began to absorb funds the market was forced to obtain unusually large advances from the Bank. If the reserve position was strong, as in 1843, advances would be very small, and the subsequent release of funds by the Treasury would add more than usual to London reserves.

Nevertheless some of the funds released by the Treasury were absorbed by the increased demand for notes by the general public. About £2,000,000³² of the dividend warrants were given out direct, instead of being claimed through London banks, and something less than £1,000,000 of these were cashed at the Bank.³³ The public, however, were less prompt in claiming their dividends than were the banks, so nothing like this amount was required at any one time. It should be noted that the increase in the public demand for currency began *before* the end of the calendar quarter and continued through the date of the dividend payment. The earlier increase was connected with the payment of Supply charges by the

³⁰ Weguelin, *Ev.*, 1857, qs. 145-151. In addition, the London bankers claimed £3,800,000.

³¹ Data showing the exact way in which the dividends were paid are probably not available for our period. But in 1868, out of a total of 231,349 warrants issued during each half year, about 90,000 were claimed through London bankers' lists and about 140,000 were delivered to the public at the Dividend Offices (in the Bank). Of those delivered to the public, 90,000 were cashed over the counter in the Rotunda. But the *amount* of the warrants cashed by the public at the Bank came to only £882,000 out of a total of £5,880,000 dividends paid. (P.P. 1868-69, (368), xxxiv.)

³² See Appendix, Chart xii.

³³ See Appendix, Chart vii. See also Report, H.L. 1819, app. B3, where for a short period notes for the 1st and 15th of the month are classified in more detail.

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Exchequer and with end-of-quarter private payments.⁸⁴

There were other seasonal changes, though less important, which tended to counteract the release and absorption of funds by the Treasury. There was a withdrawal of gold of from £300,000 to £500,000, though it began late in the calendar quarter and continued through the date of the dividend payment. "Other public accounts" as well as "other private deposits," which included the accounts of the London traders, rose slightly when the dividend was paid. Dividends on Bank stock as indicated by changes in the "rest," on the other hand, released funds to the market in some years at periods coinciding with the payment of the dividend on the government debt. During the period 1842-1844, for example, from £250,000 to £500,000 were released in April and October, though not in January and July. Other years, such as 1841, showed less regular changes in the rest. It is noteworthy that discounts showed no regular seasonal variation, though the timing of rather large increases and decreases was affected by Treasury operations. Repayment of discounts, for example, was likely to be accelerated immediately after the dividend was paid.

In contemporary discussion the seasonal character of the problem of the Treasury operations was generally emphasized. But a careful examination of the data reveals that nonseasonal changes were of considerable importance.

3. *Significance of Treasury Operations and Quarterly Advances to the Market from the Standpoint of General Credit Policy*

In part, Treasury operations initiated changes in the money market and thus required the market to adjust its position through advances or discounts at the Bank. But to some extent they responded to changes in the money mar-

ket, allowing the market to adjust its position via the Treasury. The reduction of the floating debt, owing either to an improvement in the revenue or to funding operations, tended to reduce government borrowing at the Bank and increase the Exchequer balance and thus to absorb funds from the market. For example, there was a large nonseasonal absorption of funds beginning in 1843.⁸⁵ It is not to be supposed, however, that the Treasury was wholly active in the matter. Under some circumstances the attempt to absorb funds in this manner would have interfered with the sale of Exchequer bills. Even though the amount offered to the public were less, the shortage of reserve would have tended to drive up the rate on this smaller amount. In that case repayment of Deficiency and Ways and Means advances would have been checked. In the period in question, however, bullion movements together with the purchase of investment securities by the Bank compensated in part the tightening influence of the Treasury's absorption of funds.⁸⁶ Thus the reduction of the Treasury's indebtedness to the Bank was the joint result of various conditioning factors.

On the other hand, a shortage of credit, initiated through bullion movements or the sale of securities by the Bank, tended to cause the public to refuse a certain portion of Exchequer bills and so compel the Treasury to resort to the Bank, as it did, for example, in 1825-26. During the April panic in 1847 the condition of the market required the Treasury to release funds through a reduction of the Exchequer balance to the extent of about £4,000,000. This of course accomplished the same result as if the Treasury had obtained advances from the Bank. Evidently during the October panic the Treasury's needs were temporarily provided for and no such relief to the market was given.

The Treasury could of course resist any tendency of the market to refuse bills by raising the Exchequer bill rate. But it is important to see that the extent to which the Treasury could force the sale of bills in this manner would depend upon the amount of excess reserves in the London banks which could be ab-

⁸⁴ Weguelin, *Ev.*, 1857, qs. 401-402. As time went on this increase exceeded and finally dwarfed the increase coming at the time the dividend was paid. Weguelin attributed the increase of the circulation of two to two and a half millions, coming before the end as well as at the beginning of the financial quarter, to increased holdings of the public. Unless he meant (in this context) to include bank reserves in the public's holdings, the amount was too large. Even during the 'seventies the increase of £5 and £10 notes together amounted to less than a million pounds.

⁸⁵ See Appendix, Chart XII. Cf. Tables 5 and 6.

⁸⁶ For various offsetting factors see Appendix.

sorbed together with the ease with which the market could resort to the Bank directly.

Thus the release of funds by the Bank via the Treasury is to be viewed as alternative to their release through advances to the market and through discounts. An increase of the Exchequer bill rate in order to repay Bank advances to the Treasury would have forced an increase of advances to the market and would have tended to make Bank rate more effective. On the other hand, the raising of discount rate and the rate for advances by the Bank would have tended to increase the cash resources of the market taken through the Treasury unless the Treasury prevented it by raising the Exchequer bill rate also. It is not necessary to assume that a proper adjustment of the Exchequer bill rate to market conditions meant that the rate had to be the *same* as the commercial bill rate or any other particular rate; nor that all holders of Exchequer bills were equally sensitive to the rate differentials. It is only necessary to assume, as many contemporary observers did assume, that some of the holders would demand cash if the rate offered were too low.³⁷

4. *Contemporary Discussion and Criticism*

The connection between the Treasury's operations and the money market was seen most clearly perhaps about the time of the Resumption inquiry and a few years afterwards. The reason no doubt was that the release and absorption of funds through the Treasury were on a larger scale during the war and early postwar periods than later.

Samuel Thornton pointed out that "the public would not have taken the amount of exchequer bills, which the government required to be issued at the rate of 2*d.* a day, if the bank had not been holders of a very large proportion of exchequer bills in circulation." This opinion was concurred in by Harman, Dorrien, and Pole.³⁸ At this time there was no reference to

the fact that the taking of Exchequer bills by the Bank released funds to the market. But at another time Thornton stated that the public could not have taken so large an issue of bills if the Bank had not furnished the circulating medium which enabled them to do it. He further pointed out that the Bank supported the market when there was a decline in the premium and to a greater extent if the bills went to a discount. Purchases of bills in recent years, he said, were almost exclusively for that purpose.³⁹

At the Bank Charter inquiry the examiner of Harman stated very clearly that a change in the circulation affected the price of Exchequer bills, and that advances by the Bank would hold bills at the premium necessary to enable the exchange of bills to take place. Harman agreed.⁴⁰ Gurney was asked: "Would not the effect of the Bank raising their rate of discount to five per cent, be to produce immediately a fall in the exchange of exchequer bills?" He replied, "Certainly."⁴¹

Though the discussions were rather fragmentary they indicate an understanding of the fact that the market could replenish its cash by refusing to take Exchequer bills, and that the Exchequer bill rate and the terms of credit made effective by the Bank must be kept in adjustment.

The problem of the seasonal absorption and release of funds by the Treasury was given particular attention. Ricardo, though pointing out that the Bank made some effort to offset the accumulation of revenue by lending more freely at such times and by arranging for a large amount of bills to mature just after the dividend was paid, claimed that nevertheless the distress for money just before quarter day was extreme. As a remedy, he recommended that the dividend warrants should be issued a few days before the receivers general were required to pay their balances to the Exchequer, and that such warrants should be received by the Exchequer from the receivers general or from any persons required to make payments to the Exchequer in the same manner as Bank notes.⁴² The plan

³⁷ Exact comparisons of the yield on Exchequer bills with other rates in the market are impossible because the bills were usually sold at a premium. The premium evidently was based partly upon the privilege of exchanging old bills for new ones at par. For nominal rates on Exchequer bills and market premiums for a few years see pp. 70-71.

³⁸ Ev., H.C. 1819, pp. 149-150.

³⁹ Ev., H.L. 1819, qs. 61-65.

⁴⁰ Ev., 1832, qs. 2178-2203.

⁴¹ Ev., 1832, q. 3590. The topic was not pursued.

⁴² *Proposals for an Economical and Secure Currency* (2nd ed., 1816), sec. v.

apparently presupposed that the shortage of money arose chiefly from the transfer of the balances of the receivers general to the Exchequer. But as a matter of fact the receivers general also held their balances in the form of deposits at the Bank.⁴³ The real difficulty was that the Treasury through one account or another, including the deposits of the receivers general, took funds from the public during a large part of the quarter and released a large sum in one day.

At the Bank Charter inquiry Palmer explained the object of the new system of making quarterly advances to the market. It was to equalize the circulation at the end of the quarter by lending to the public at large any notes required at what was deemed to be the market rate.⁴⁴ The Committee inquired as to the advisability of having more frequent payments of the dividend so as to moderate the seasonal accumulations of funds. The general opinion was that the system of quarterly advances to the market made more frequent payments unnecessary.⁴⁵

At the inquiry of 1840 Norman stated that the quarterly advances to the market had done away with most, though not all, of the inconvenience in the money market — an unnatural contraction of the circulation — connected with the dividend payments.⁴⁶ Palmer stated that Deficiency advances to the Treasury were to a

certain extent counteracted by the repayment of market advances. He believed that the Deficiency advances had no effect upon general control since they were adjusted within the quarter.⁴⁷ In brief, the Bank officials at this time gave the impression that the release and absorption of funds by the Treasury gave rise merely to a seasonal problem and that the temporary advances to the market were merely a means of counteracting a temporary shortage.

It was a mistake to suppose that Treasury operations had no effect upon general control since they were adjusted within the quarter. Though it is true that Deficiency bills were nearly always paid off during the quarter in which they were issued, there was not the same kind of adjustment in each quarter. That is to say, the net release and absorption of funds was not merely seasonal. Moreover, purely seasonal variations had a significance from the standpoint of general control, for the Bank in making quarterly advances to the market did not attempt to compensate a given amount of funds absorbed by the Treasury with an *amount* of advances to the market. The Bank set the *terms* of credit and let the market take what it chose to. Also, after 1832, there was no discussion of the fact that the Treasury's connection with the Bank on the one hand and the money market on the other gave the market a means of replenishing its cash via the Treasury.

The significance of Treasury operations for the general control of credit was probably best understood about the period of the Resumption inquiry. On the whole I believe the matter was as well understood then, at least among the Bank officials, as it is today.

⁴³ Philippovich, *History of the Bank of England*, p. 186.

⁴⁴ Ev., 1832, q. 255.

⁴⁵ Tooke, Ev., 1832, qs. 5437-38; Glyn, Ev., 1832, qs. 2984-91. Some years later J. W. Cowell proposed that the dividend should be paid monthly and that the Treasury should discount bills in the market instead of resorting to the Bank (*Institution of a Safe and Profitable Paper Currency*, 1843, pp. 65-70). His idea was of course to sever as completely as possible the Treasury's connection with the supply of Bank funds.

⁴⁶ Ev., 1840, qs. 1882-89, 2338-52.

⁴⁷ Ev., 1840, qs. 1348, 1582-87.

TABLE 4A
EXCHEQUER BILL RATES
Nominal Rates fixed by the Treasury, 1810-1847*

Date of change	Rate per £100 per diem	Rate per cent per annum	Date of change	Rate per £100 per diem	Rate per cent per annum
1810 March 19	3 d.	4.56	1829 Dec. 18	1½	2.28
1811 July 6	3¼	4.94	1836 Sept. 29	2	3.04
1812 April 29	3½	5.32	1836 Nov. 21	2½	3.80
1816 March 21	3¼	4.94	1837 Dec. 14	2	3.04
1816 Nov. 22	3	4.56	1839 March 18	1¾	2.66
1817 Feb. 24	2½	3.80	1840 March 16	2¼	3.42
1817 Oct. 11	2	3.04	1842 June 15	2	3.04
1824 June 14	1½	2.28	1843 March 17	1¾	2.66
1825 Dec. 19	2	3.04	1843 June 16 and through (at		
1829 Sept. 30	1¾	2.66	least) Jan. 5, 1847	1½	2.28

* Source: P.P. 1842, (580), xxvi; P.P. 1845, (12), xxviii; P.P. 1847, (412), xxxiv.

The rates per diem are reduced to rates per annum on the basis of a schedule used by the Treasury (P.P. 1837-38, (352), xxxvi).

TABLE 4B

EXCHEQUER BILL RATES

*Market Premiums, "highest" and "lowest" in each year, 1842-1847 **

Nominal rate, per cent per annum	Highest premium, per cent of par	Lowest premium, per cent of par
1842 3.42	Nov. 8 3.05	.70 Jan. 1
3.04	Nov. 8 3.05	2.00 June 17
1843 3.04	Mar. 16 3.70	2.50 May 18
2.66	Mar. 18 3.50	2.00 May 31
2.28	Dec. 30 3.20	2.30 June 20
1844 2.28	Jul. 24 4.05	2.65 Dec. 5
1845 2.28	Feb. 24 3.50	.55 Dec. 4
1846 2.28	Feb. 10 2.10	.20 Aug. 12
1847 ^b 2.28	Jan. 11 .... .75	Par Mar. 16
3.04	May 11 30	.55 <i>Disc.</i> May 5

* Source: P.P. 1847, (412), xxxiv. In the original figures premiums are given in shillings per £100.

^b 1847 not complete.

TABLE 5
EXCHEQUER BILLS ISSUED AND PAID OFF BY THE TREASURY DURING EACH FINANCIAL YEAR *
(in thousands of pounds)

Financial year ending January 5	Deficiency bills, issued and paid off the same year	Bills in anticipation of annual duties		Ways and Means bills	
		Issued	Paid off	Issued	Paid off
1810 .....	...	3,000	3,567	...	...
1811 .....	...	3,000	2,804	...	...
1812 .....	...	3,000	2,757	...	...
1813 .....	...	5,311	3,215	...	...
1814 .....	...	3,551	3,369	...	...
1815 .....	...	1,092	3,000	...	...
1816 .....	...	2,046	2,990	...	...
1817 .....	...	3,000	2,823	...	...
1818	6,699	3,000	3,187	...	...
1819	12,578	3,000	2,553	...	...
1820	25,006	3,597	3,447	...	...
1821	33,233	2,403	3,000	...	...
1822	35,339	4,000	4,000	...	...
1823	31,517	3,000	3,000	...	...
1824	14,996	3,000	3,000	...	...
1825	4,725	3,000	3,000	...	...
1826	13,145	...	...	...	...
1827	23,869	...	...	...	...
1828	25,238	3,000	2,469	...	...
1829	26,109	2,915	3,293	...	...
1830	22,485	2,651	2,804	...	...
1831	20,311	2,319	2,319	1,477	1,477
1832	19,053	3,445	3,445	923	923
1833	20,330	1,500	1,020	2,839	2,839
1834	21,091	...	...	679	679
1835	21,090	...	...	...	...
1836	21,011	...	...	...	...
1837	18,871	...	...	...	...
1838	22,237	...	...	...	...
1839	23,690	...	...	970	970
1840	23,530	...	...	980	980
1841	23,824	...	...	1,253	1,253
1842	24,653	...	...	3,043	3,043
1843	24,131	...	...	1,624	1,624
1844	25,033	...	...	2,749	2,749
1845	15,259	...	...	...	...
1846	8,118	...	...	...	...
1847	4,661	...	...	...	...
1848	4,264	...	...	...	...
1849	4,469	...	...	...	...
1850	1,271	...	...	...	...
1851	126	...	...	...	...
1852	1,505	...	...	...	...
1853	3,314	...	...	...	...
1854	6,837	...	...	...	...
<i>Quarter ending April 5</i>					
1854	3,711	...	...	790	...
<i>Year ending March 31</i>					
1855	13,861	...	...	1,500	1,290
1856	11,507	...	...	1,740	2,740
1857	7,713	...	...	...	...
1858	2,209	...	...	...	...
1859	4,376	...	...	...	...

* Source: Report on Public Income and Expenditure, 1868-69, part ii, pp. 25-125.

Bills in anticipation of annual duties, Deficiency bills, and Ways and Means bills were issued only to the Bank. Supply bills were sold to the public as well as to the Bank.

Bills for the payment of dissentient stockholders were not consistently distinguished from ordinary Supply bills in the Report. These bills were sold for the most part, if not entirely, to the Bank.

TABLE 5 (Continued)

EXCHEQUER BILLS ISSUED AND PAID OFF BY THE TREASURY DURING EACH FINANCIAL YEAR
(in thousands of pounds)

Supply bills				Bills to pay dissentients		Treasury bills for Ireland	
Issued in exchange for old bills	Issued for cash	Paid off in cash	Funded	Issued	Paid off	Issued	Paid off
15,269	17,817	9,436	7,932	...	...	500	500
17,672	17,047	9,925	8,311	...	...	...	500
17,721	20,502	9,254	7,019	...	...	1,322	...
21,074	19,394	13,060	5,432	...	...	1,602	1,123
12,611	37,996	20,772	15,756	...	...	305	322
20,749	30,432	15,922	...	...	...	1,569	1,585
21,485	21,295	25,030	11,128	...	...	2,142	2,144
28,153	15,438	11,751	...	...	...	5,088	2,281
29,962	20,322	8,026	...	...	...	1,500	1,138
27,681	7,953	4,746	16,338	...	...	800	1,087
8,965	2,519	2,698	1,369	...	...	2,000	2,200
15,846	6,447	12,371	6,964	...	...	1,500	2,100
23,926	4,076	4,775	36	...	...	1,000	1,500
33,481	7,112	3,617	...	...	...	...	1,105
32,712	1,783	1,962	...	...	1,360	...	...
31,843	414	2,757	...	5,502	...	...	...
27,395	742	5,146	...	597	2,390	...	...
23,787	2,417	2,492	3,354	...	3,250	...	...
24,123	4,062	1,080	...	...	384	...	...
27,199	392	289	...	...	22	...	...
24,841	951	117	3,000	50	46	...	...
25,384	156	7	...	2,610	12	...	...
25,166	280	339	...	260	256	...	...
25,320	314	129	...	11	11	...	...
27,203	724	3	...	...	6	...	...
27,825	1,335	7	...	...	1	...	...
28,434	655	32	...	...	...	...	...
27,676	627	1,866	1,075	...	...	...	...
24,155	435	1,213	1,514	...	...	...	...
23,908	487	248	...	...	...	...	...
23,896	654	572	4,887	...	...	...	...
19,764	2,143	546	14	...	...	...	...
20,469	1,045	666	2,098	...	...	...	...
18,160	338	251	1,051	...	...	...	...
18,116	1,761	169	40	...	...	...	...
18,348	497	2,185	14	...	...	...	...
18,295	67	418	...	...	...	...	...
18,300	8	81	...	...	...	...	...
18,010	...	395	...	...	...	...	...
17,767	...	180	...	...	...	...	...
17,745	...	12	...	...	...	...	...
17,702	...	2	...	...	...	...	...
17,720	...	14	...	...	...	...	...
17,707	...	...	...	...	...	...	...
14,368	3,128	3,185	1,657	...	...	...	...
7,419	...	15	...	...	...	...	...
14,734	2,406	672	591	...	...	...	...
15,931	6,500	990	1,479	...	...	...	...
19,977	1,000	443	751	...	...	...	...
20,633	289	366	...	...	...	...	...
20,168	...	34	7,600	...	...	...	...

Exchequer bills of all classes were paid off in part, though not to any great extent, through the Sinking Fund. Such payments have been treated in this tabulation as cash payments.

Treasury bills for Ireland were similar in form to Exchequer bills.

For amounts of Exchequer bills renewed in March, June, September, and December, 1816-1840, see P.P. 1840, (168), xxix. (Beginning in 1838 bills were renewed only in March and June.)

TABLE 6

SURPLUS INCOME OVER EXPENDITURE; MONEY APPLIED TO REDUCTION OF DEBT IN EXCESS OF MONEY RAISED BY CREATION OF DEBT; AND AMOUNTS OF FUNDED AND UNFUNDED DEBT AT THE CLOSE OF THE FINANCIAL YEAR ^a

(in thousands of pounds)

Financial year ending January 5 ^b	Surplus income over expenditure (or deficit —)	Money applied to reduction of debt in excess of money raised by creation of debt (or the reverse —)	Debt at the close of the financial year Funded	Unfunded ^c
1810	—12,360	—12,055	614,789	39,672
1811	—8,618	—7,909	624,302	37,892
1812	—16,242	—18,633	635,583	42,617
1813	—24,467	—25,550	661,410	44,845
1814	—36,457	—38,392	740,024	48,070
1815	—35,030	—33,920	752,860	60,280
1816	—20,355	—20,614	816,312	44,727
1817	—2,079	133	796,200	49,768
1818	—1,126	1,848	776,742	62,650
1819	1,942	1,217	791,867	48,715
1820	552	—2,591	794,980	41,551
1821	1,464	6,838	801,565	33,336
1822	3,184	4,074	795,313	32,672
1823	3,377	3,212	796,530	38,677
1824	4,321	2,642	791,702	35,779
1825	4,305	3,697	781,123	37,900
1826	3,703	7,057	778,128	31,703
1827	—776	—1,506	783,802	25,025
1828	—1,165	—589	777,477	27,622
1829	3,142	2,333	772,323	27,710
1830	1,659	1,767	771,252	25,548
1831	2,572	1,787	757,487	27,317
1832	—846	1,282	755,544	27,173
1833	574	—657	754,101	27,357
1834	1,477	561	751,659	28,071
1835	1,590	450	743,675	29,559
1836	—15,105	—16,822	758,550	30,114
1837	—1,306	—1,620	761,423	28,074
1838	—726	1,101	762,275	25,254
1839	—344	—830	761,348	25,492
1840	—1,531	—575	766,548	20,688
1841	—1,560	—2,090	766,372	22,273
1842	—2,087	—1,924	772,531	19,679
1843	—3,979	—1,693	773,068	18,689
1844	1,446	—1,845	772,169	20,496
1845	3,462	1,956	769,194	18,794
1846	3,820	1,695	766,673	18,442
1847	2,847	1,252	764,608	18,369
1848	—2,993	—7,116	772,402	17,975
1849	—796	—1,414	774,023	17,795
1850	2,098	—363	773,168	17,759
1851	2,828	2,584	769,273	17,757
1852	2,726	3,026	765,127	17,743
1853	2,418	1,880	761,623	17,743
1854	3,299	7,192	755,312	16,024

TABLE 6 (Continued)

Financial year ending January 5 ^a	Surplus in- come over expenditure (or deficit —)	Money applied to reduction of debt in excess of money raised by creation of debt (or the reverse —)	Debt at the close of the financial year	
			Funded	Unfunded ^c
<i>Quarter ending April 5</i>				
1854	—422	1,229	753,074	16,009
<i>Year ending March 31</i>				
1855	—6,155	—7,259	752,064	23,151
1856	—22,722	—25,371	775,731	28,183
1857	—3,254	—7,085	780,120	27,989
1858	—238	2,362	779,225	25,912
1859	820	72	786,801	18,277

^a Source: Report on Public Income and Expenditure, 1868–69, part ii, pp. 286–289, 306–311. Data are for the United Kingdom.

^b Thus the first figures, practically speaking, are for the calendar year 1809 — and similarly through January 5, 1854.

^c Not including bills in anticipation of annual duties, Deficiency bills, or Ways and Means bills. See Report on National Debt, P.P. 1857–58, (443), xxxiii, p. 102.

SPECIAL DEPOSITS AND SPECIAL ADVANCES TO THE MARKET

THE great bulk of the Bank's deposits were of course nonreserve accounts,¹ but only a few large special accounts attracted particular attention from the standpoint of control. Since it was realized that these deposits deprived the market of funds to an extraordinary extent, the Bank adopted a plan of giving advances against collateral — in addition to the regular quarterly advances — at less than Bank rate. While such advances at an advertised rate lasted only a short period, there is reason to believe that advances by private arrangement with the discount houses were available through the period 1833–1844, as well as afterwards.²

1. Procedure

The Bank did not apparently seek these deposits as a means of absorbing funds from the market and thereby of enforcing its terms more readily, as was true during the recent World War.³ They were acquired for various reasons unconnected with credit policy. In December, 1833, the East India Company, having larger funds on hand than it cared to leave on deposit without interest, proposed that a part of its balance should be loaned "through" the Bank at the Bank's responsibility, and the Bank agreed. Actually, therefore, the Bank agreed to pay interest on a portion of the East India

Company's balance.⁴ The rate varied from 2 to 3 per cent.⁵

The *West India Compensation* was a special deposit (in 1835–36) for the payment of the indemnity to the West India planters for freeing the slaves.⁶ The government raised a loan of £15,000,000 for the purpose, and the payments of the subscriptions to the loan in excess of the payments of the awards to the planters were left on deposit with the Bank. Since the government allowed a discount of $3\frac{3}{4}$ per cent per annum for early payment of subscriptions⁷ there was a tendency for surplus funds in the market to be absorbed by the special deposit of the government. And since the Bank at the time was offering to advance to the market at $3\frac{1}{2}$ per cent, it was really in the position for several months of maintaining an upper and lower peg for the rate on stock exchange loans.⁸

The Bank began making the special advances in December, 1833. At first they were made only by private arrangement with the discount houses, the *Bank making application* to the latter. These advances, which were for fixed periods, were secured by the deposit of commercial bills and (from August, 1835) government securities and were at rates of from $2\frac{1}{2}$ to 4 per cent. The rates were lower than the advertised rate at least part of the time.⁹ The

⁴ See Chart x in Appendix for the East India Company's special deposit.

⁵ The rate was 2 per cent from December 21, 1833 to August, 1836, at which time it was increased to $2\frac{1}{2}$ per cent. From December, 1836, to January, 1837, the rate was 3 per cent (Palmer, *Ev.*, 1840, q. 1162). It may be observed that these rates were lower than the rate the bill brokers were allowing to the banks on call money. Compare Chart B, p. 93.

⁶ See Chart xi in Appendix.

⁷ Page, *Ev.*, 1840, q. 859.

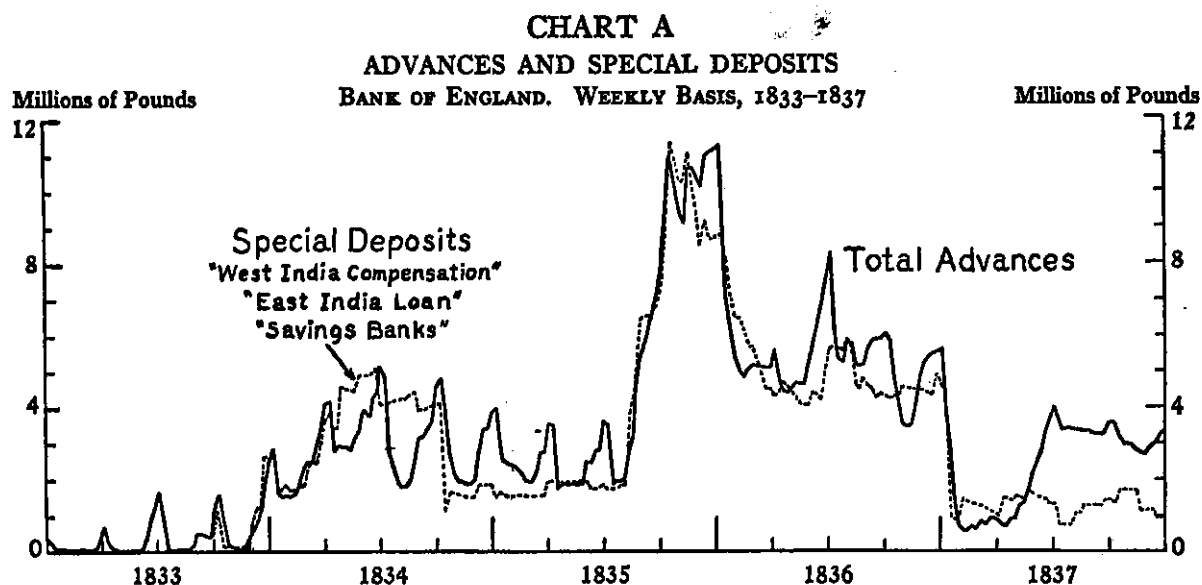
⁸ The stabilizing effect upon the market bill rate also seems evident. See Chart B.

⁹ Compare the rates given by Palmer with the advertised rate for advances in Chart B, p. 93. Page stated that he

¹ Even as late as the 'sixties London bankers' balances were generally less than the public deposits and scarcely a third of the private deposits. See Appendix, Chart xviii.

² After 1844 the general rule was to make advances against collateral during periods when the revenue was accumulating at a rate usually $\frac{1}{2}$ per cent below Bank rate, and at other times at Bank rate. However, there were important deviations from the rule (Weguelin, *Ev.*, 1857, q. 34; Report, 1857, app. 6; and Chart D, below).

³ For a discussion of the part played by special deposits in the procedure of control during the World War, see S. E. Harris, *Monetary Problems of the British Empire* (1931), pp. 46–64, 122–129.



bill brokers continued to receive advances of this sort not only until February, 1838, when the arrangement with the East India Company was terminated, but during the next six years. Hankey stated that the Bank was obliged to lend at market rates when it had large amounts at its disposal, and that the rate charged in 1843 was only $1\frac{1}{2}$ per cent.¹⁰ This was at a time when Bank discount rate was 4 per cent and the public rate for quarterly advances was 3 per cent.

Special advances on public notice were available continuously only from August 5, 1835 to April 30, 1836; but it should be remembered that the periods of the quarterly advances were extended beyond their usual length from 1836 to 1839.¹¹ These advances could be secured by stock as well as by bills. The borrowers were mostly connected with the stock exchange.¹²

The special advances, whether made by pri-

believed that the rate to the bill brokers was lower than the advertised rate for special advances in 1835-36 (Ev., 1840, qs. 922-924).

¹⁰ Hankey, Ev., 1857, qs. 2250-51. The shape of the curve of advances from 1838 to 1844 makes it appear plausible that the Bank continued to make advances to the bill brokers other than the quarterly advances.

¹¹ There were less than three months from May 29, 1835 to October 20, 1836 when advances were not available to the public. Quarterly advances were open for 195 days in both 1837 and 1838 and slightly longer in 1839. (Report, H.C. 1848, app. 10.)

¹² For details concerning the special deposits and advances, see Palmer, Ev., 1840, qs. 1155-1249.

vate arrangement with the money dealers or by public notice and at the initiative of the borrower, were an important means by which the market could adjust reserves to requirements. Though the Bank officials sometimes spoke of lending the East India Company deposits (implying an agency transaction), they did not claim that the special deposits and advances were equal.¹³ Obviously the amount of advances by public notice could not be fixed at a predetermined level. And in the case of advances by private arrangement, the amount would depend upon the requirements of the brokers and their other sources of funds.

2. Contemporary Opinion

The Bank officials did not draw a distinction between reserve and nonreserve deposits. Palmer formally classified Bank deposits into (a) those "waiting a demand for employment," which should be considered as part of the circulation, and (b) those lodged in the Bank for safe keeping and not intended to be drawn against immediately. The latter, like bonds, were money *in posse* but not money *in esse*. But he placed the special deposit of the East India Company in the *first* category along

¹³ In Chart A the three special deposits which attracted particular attention have been added together. It is apparent that their variations did not correspond at all closely with variations in total advances even after allowing for what might be considered the usual quarterly advances.

with London bankers' balances.¹⁴ He was not at this point, however, trying to explain the contractive effect of the special deposits. When defending the special advances he stated that the large "extra" deposits of the East India Company, the Commissioners of Savings Banks, and the West India Compensation justified an increase of securities that was outside the general rule of the Bank. The failure to employ them by making special advances would have caused an undesirable decline in the circulation (or have required the market to discount large amounts at Bank rate).¹⁵

The Currency School objected to considering any deposits in the same category with the circulation. Loyd thought Palmer's division of deposits into ordinary accounts and those of a temporary nature was purely arbitrary. The significant distinction was between all deposits on the one hand and the note circulation on the other.¹⁶ In his evidence in 1840 he defended the special advances on the ground that the large deposits would otherwise have caused a contraction of the circulation. But in his opinion *all deposits* should be viewed in this manner, and their variations compensated by a corresponding variation of securities.¹⁷ This was also Norman's view.¹⁸ Their reasoning was, as we have seen, that notes and coin were the foundation for the credit superstructure, and

that even bankers' reserve balances were to be considered a part of the superstructure and not a part of the foundation.¹⁹

Page, Tooke, and Gilbert argued that the advances had encouraged speculation. Page insisted that the Bank should have required the market to regain amounts drawn in through special deposits by discounting at 4 per cent. He considered that broadening the range of securities eligible as collateral for advances as well as lowering the rate was objectionable.²⁰ Tooke claimed that the Bank should have taken advantage of the special deposits to create pressure, considering the circumstances at the time. It should have required the money to be taken out in discounts at 4 per cent, and then if the demand for discounts had defeated the object of keeping down the amount of securities the discount rate should have been raised.²¹ Norman, on the other hand, insisted that the Bank would have caused serious inconvenience by waiting for the notes to go out in discounts instead of making advances at a lower rate.²²

Gilbart argued that the special advances had encouraged speculation in securities because every one knew he could get advances whenever he wanted them. A person could therefore take new shares with confidence, paying only an installment on them.²³ Gilbert's argument does not bear very close analysis. One would assume from his statements that loans on shares were not regularly to be had in the market before the Bank began making its special advances. However, he objected to the low rate as well as to the quality of the credit. Palmer thought that advances on stock tended as a general rule to cause speculation but, considering the size of the special deposits, he believed that it was necessary to make a part of the advances

¹⁴ *Causes and Consequences of the Pressure upon the Money-Market* (1837), pp. 34-35; *Reply to the Reflections of Loyd* (1837), pp. 5-6. In the latter pamphlet he placed the ordinary working accounts of the public in the category which was unlike the circulation. Whether the working accounts of the London bankers, as distinguished from their surplus funds, were also included is not clear.

¹⁵ *Causes and Consequences of the Pressure upon the Money-Market*, pp. 12-15; Ev., 1840, q. 1220.

¹⁶ *Reflections Suggested by a Perusal of Mr. J. Horsley Palmer's Pamphlet on the Causes and Consequences of the Pressure on the Money Market* (1837), in *Tracts*, pp. 6-10.

¹⁷ Ev., 1840, qs. 2809-23. See also *Second Letter to J. B. Smith*, in *Tracts*, pp. 194-196.

¹⁸ Ev., 1840, qs. 1709-22. In *Prevalent Errors with Respect to Currency and Banking* (1833) Norman stated that, whereas some persons inferred that deposits were so much taken from the circulation and tended to reduce it, others assumed that they were evidence of a superabundant circulation and called upon the Bank for a reduction of issues. He considered that the amount of deposits afforded no criterion for regulating the currency. The latter should vary with the bullion (pp. 21-28). The concept of reserve and nonreserve deposits would of course have solved his paradox.

¹⁹ See, for example, Norman, *Letter to Charles Wood* (1841), pp. 71-91.

²⁰ Ev., 1840, qs. 859, 880-918.

²¹ Ev., 1840, qs. 3637-75. At another point he stated that a high rate would have checked the demand for discounts so that no large amount would necessarily have been taken as the special deposits increased. He believed that the London bankers might have withdrawn some if not the "whole" of their deposits from the Bank (qs. 3657-60).

²² Ev., 1840, q. 1722.

²³ "The Currency: Banking," *Westminster Review*, XXXV, (1841), 107-110.

against stock.²⁴ He pointed out that the special advances were a substitute measure for the Government's proposal for the Bank to advance the amount of the loan in excess of the first and second installments paid in by the subscribers. The directors did not care to pledge themselves to a specific amount, as it might endanger the state of the currency.²⁵

Though the Bank officials did not explain quite satisfactorily how the special deposits

affected the credit situation, they clearly grasped the fact that they were restrictive and adopted a procedure well designed to deal with the problem.

The criticisms of the Bank's special advances and the rates charged followed from the assumption commonly made that if a drain occurred the Bank's cheap money policy must necessarily have been responsible. They were similar to the criticism of the advances to the government prior to 1825 and of the discount policy prior to 1847.

²⁴ Ev., 1840, qs. 1211-41.

²⁵ Ev., 1840, qs. 1241-45. See also Page, Ev., 1840, q. 859.

CHAPTER VII

OPEN MARKET AND OTHER SECURITY OPERATIONS

THERE are three series of data on government securities held by the Bank during the period before 1832. The two detailed returns are shown in the tables at the end of this chapter.¹ The data are classified in the same general way in each table,² but it should be noted that the June 1st return is not complete before 1819 and after 1825.³ In addition to these detailed returns, figures of total government security holdings are available for the end of February and of August.⁴ The permanent advance to the government, equal approximately to the Bank's capital, is not of course included.⁵

¹ These data are used in Charts xva and xvb in the Appendix.

² The June 1st data do not include advances out of unclaimed dividends. As the Commons Committee in 1819 pointed out, this item scarcely represented a debt from the Treasury in the proper sense of the word. It represented amounts due to the public and made use of by the Treasury until the public claimed their dividends. (Second Report, H.C. 1819, p. 6.)

³ Treasury bills for the Service of Ireland (as of June 1) are not shown before 1819 and the Dead Weight is not shown after 1825. Also, this return does not show stock purchased in May and June 1830. The par value was £823,000, but it was purchased at a discount. The book value for Feb. 29, 1832 was £764,600. (Report, 1832, app. 13; Report, H.C. 1848, app. 34.)

⁴ See Chart 1 in Appendix. This series is more convenient for some purposes, since private securities, bullion, circulation, and deposits were reported for the same dates.

⁵ The permanent advance was £11,686,800 from 1750 to 1816; it was then increased to £14,686,800. In 1834 it was decreased to £11,015,100, the Bank taking in return reduced 3 per cents of £4,080,000, dividends on which were not chargeable until April 1854. (Report on Public Income and Expenditure, part ii, pp. 515-517.) Gilbert, however, stated that this arrangement was later changed and that the Bank received a 26-year annuity expiring in 1860 (*Practical Treatise on Banking*, 5th ed., 1849, I, 161). It may be noted that, strictly, the Bank in its statements of assets and liabilities subtracted the amount of its capital, which was £14,553,000 beginning in 1816, from total government securities.

1. *Nature and Extent of Security Operations*

Until after 1826 it is impossible to distinguish between security purchases which were undertaken at the Bank's own initiative and those undertaken at the initiative of the Treasury. There was indeed a formal legal distinction between Exchequer bills "issued" to the Bank under agreement and bills which the Bank bought from the government broker or in the open market.⁶ But in actual fact purchases until after the panic of 1825 were commonly made at the request of the Treasury. The Governor in a memorandum to the Lords Committee in 1819 said that Exchequer bills were never sold to the Bank if they could be sold to the public. Also it was stated that the Bank seldom if ever bought bills at a premium in the market. And since the Treasury tried to maintain them at a premium, it followed that the Bank did not ordinarily buy any except when requested. Nor were such bills ever sold by the Bank in the market.⁷ The necessity of supporting the market for government securities continued through the period of the refunding operations of 1822-1824. During the panic of 1825 Exchequer bills went to a discount of ninety shillings, and according to Ward it was necessary for the Bank to support the market in order to collect the revenue in cash.⁸ On December 13 Liverpool and Robinson asked the

⁶ Report, H.L. 1819, app. A3. As pointed out in Chapter V, Exchequer bills regularly issued to the Bank were Deficiency bills, for Consolidated Fund charges, and bills in anticipation of certain annual revenues, such as the Malt, Sugar, and Land Tax bills, for the services of Supply. During the war period other advances were made by special arrangement.

⁷ Report, H.L. 1819, app. A3. Samuel Thornton stated that purchases "of late Years" were almost exclusively on the application of the Chancellor of the Exchequer (Ev., H.L. 1819, q. 65).

⁸ Ev., 1832, qs. 2052-56.

Bank to buy £500,000 of bills "to relieve the present distress in the Money Market." Again on February 14 they asked the Bank to buy £2,000,000, "under all the circumstances of the present distress in the City and Country."⁹

After the panic of 1825 the Bank was seldom called on to support the market for Exchequer bills, but the possibility always existed. A member of the Bank Charter Committee pointed out very clearly that the Treasury could not offer to exchange Supply bills at a given rate without assurance of support from the Bank if it were necessary.¹⁰ On February 5, 1840 the Chancellor of the Exchequer asked the Bank to buy up to £1,000,000 of bills "as a measure the least likely to disturb the present state of the money market."¹¹

Though the Bank was not called on so frequently to buy Exchequer bills after 1826, the change in procedure was not fundamental, since it continued to make advances on Deficiency and Ways and Means bills according to the Treasury's requirements. Nevertheless from the late 'twenties "Exchequer bills purchased" represented amounts that the Bank for the most part bought on its own initiative.

Besides the regular advances and the Exchequer bills purchased, the Bank made three important advances of a special character during the period 1822-1825. In 1822 it arranged with the Government to purchase the Dead Weight or annuity. The Bank agreed to advance £13,089,419 during the period 1823 to 1828 in return for an annuity of £585,740 per year for forty-four years beginning April, 1823.¹²

Also in 1822 Liverpool and Vansittart asked the Bank to advance what was necessary to pay the dissentient holders of Navy 5 per cent stock

who refused to convert into 4 per cent stock.¹³ By June 1, 1823 these advances were reduced to £1,700,000.

In February, 1824 the Bank made a further agreement to pay the holders of 4 per cent stock who refused to convert to 3½ per cent stock. The advances began in October, 1824 and amounted to approximately £5,000,000.¹⁴ The Bank was to be repaid in installments of £500,000 each quarter from the Sinking Fund.¹⁵ The repayment was actually more rapid.¹⁶

These operations were not open-market operations in the sense that the Bank really had control over the amount of its holdings. While the Bank had the right to sell a part or all of the Dead Weight, and in 1839 asked for bids,¹⁷ none of it was ever sold. The advances to pay the two classes of dissentients were not specified sums, but such amounts as were required to maintain low enough market rates to make the new stock issues attractive to the public. They resembled open-market operations, however, in this respect: the initiative in the credit expansion was taken by the Bank and the Treasury and not left with the market.

In addition to these government security operations the Bank bought mortgages, which increased gradually to £1,452,396 in July, 1825. The Bank also advanced £1,500,000 to the East India Company, which amount, however, was reduced to £500,000 in November, 1824, and began making advances on stock, which amounted to £1,003,400 by June, 1824.¹⁸ These advances, being of an unusual character, and being made by private arrangement and not by public notice, are to be considered more in the nature of investments than of accommodation.

⁹ The holders of each £100 of 5 per cent stock were offered £105 of 4 per cents. Out of £152,422,143 outstanding, £149,627,867 were converted, leaving only £2,794,276 to be paid off in cash. See letter from the Government to the Bank, P.P. 1822, (497), XXI. See also Report on Public Income and Expenditure, part ii, p. 555.

¹⁰ Ward, Ev., 1832, qs. 1893, 1905, 2013. The amount of dissentient stock in this case was £6,149,246 out of a total of £76,248,180. (Report on Public Income and Expenditure, *loc. cit.*)

¹¹ Palmer, in memorandum following his evidence, 1832.

¹² See Table 7b, p. 89.

¹³ Palmer, Ev., H.C. 1848, q. 2073. For the bids submitted see Report, 1840, app. 27.

¹⁴ Report, 1832, app. 6.

⁹ Report, 1832, app. 4. The Treasury agreed to redeem immediately the bills purchased in the market in December if the Bank should require it, but the Bank apparently held them for the time.

¹⁰ Ev., 1832, during the examination of Harman, qs. 2188-2200.

¹¹ P.P. 1841 (Session, January to June), (28), XIII. Between Feb. 11 and March 17, 1840 the Bank bought £1,000,000 of bills (Report, 1840, app. 16).

¹² The arrangement was put through Parliament in 1823 (4 Geo. IV, c. 21). See Ward, Ev., 1832, q. 1910; Report, 1832, app. 30; Report on Public Income and Expenditure, 1868-69, part ii, pp. 516-518.

The Bank had bought no stock until 1830, when it acquired a small amount.¹⁹ No stock was again bought until 1837, and very little was bought until after 1840. From 1840 to 1844 there was a gradual increase which more than offset the decline in the value of the Dead Weight.²⁰ The directors in fact decided to hold stock rather than Exchequer bills after 1837. Palmer opposed this policy on the ground that the loss from the sale of Exchequer bills was likely to be less than from the sale of stock. But the Court took the other view.²¹ The practice of selling stock for cash and repurchasing for account was apparently associated with this change from Exchequer bills to stock. Morris stated that the Bank had undertaken such operations between 1844 and 1847 and may have done so earlier.²²

The running off of the Dead Weight automatically reduced securities a small amount each year. The rather large reduction in 1839 was not a true sale. The foreign credit which the Bank obtained at that time was secured by the transfer of the Dead Weight to Barings' and Rothschild's as the credit was used.²³ As the credits were liquidated the annuities were transferred again to the Bank. The Bank also exchanged £750,000 of annuities on August 6, 1839 with the East India Company for Exchequer bills. The Bank sold the bills at once and later credited the deposit account of the East India Company when the annuities were returned.²⁴

The private investment securities in 1832 consisted of mortgages, City bonds, and bonds of the London Dock Company. Later the Bank

purchased mortgages and bonds of the East India Company and beginning in 1842 it purchased railway debentures.²⁵ As in the case of stock and annuities, there were no rapid changes in private investments with the apparent aim of making Bank rate effective. But, as the chart indicates, there were significant changes extending over a period of a year or more. The most noticeable of these was the increase during the twenty months beginning January, 1843.

2. *Should the Bank Purchase Securities with the Aim of Relieving Distress?*

On only one occasion after Resumption did the Bank buy securities with the definite object of expanding credit and raising prices — at least so far as the public were informed. Owing to the depression and fall of prices, particularly agricultural prices, the Government was under great pressure to grant relief in some form. Liverpool informed the Bank in February, 1822 that the Government had resolved to borrow £4,000,000 from it for relief. He suggested lending on public works and on parish rates. But his main object, according to Ward, was to get £4,000,000 into circulation.²⁶ It is clear that the Bank's advances for the payment of dissentients and the purchase of the Dead Weight were merely parts of a general plan for cheap money and credit expansion.

After the panic of 1825 this policy came under severe criticism. Baring argued that the Bank had begun the expansion which led to the panic though the country banks had greatly aggravated the speculation. This was essentially the position of Canning and Brougham.²⁷ Gurney considered it unwise to undertake such operations to relieve agricultural distress; but he thought there were various causes of

¹⁹ Report, H.C. 1848, app. 34. The par value was only £823,000.

²⁰ Compare Chart ix in Appendix, below, with Report, 1840, app. 25; Report, H.C. 1848, app. 34.

²¹ Palmer, *Ev.*, 1832, q. 169; H.C. 1848, qs. 2066-70. Cotton, *Ev.*, H.C. 1848, qs. 3943-46.

²² *Ev.*, H.C. 1848, qs. 2641, 2788-90; H.L. 1848, q. 16. From April 6 to April 23, 1847 the Bank borrowed £1,275,000 on Consols; and the following October it again borrowed.

²³ The first credit was obtained in May. A larger credit of £2,500,000 was obtained in July. The maximum use of the credits was in November, 1839. They were liquidated finally in April, 1840. See Palmer, *Ev.*, 1840, qs. 1368-1439; H.L. 1848, q. 838.

²⁴ Palmer, *Ev.*, 1840, qs. 1395-1400. Cf. Chart ix in Appendix.

²⁵ Report, 1832, app. 13; 1840, app. 16, 26; H.C. 1848, app. 35; 1857, app. 30. The last two appendices give amounts of railway debentures purchased. Cotton stated that the Bank held about £2,000,000 of railway bonds (*Ev.*, H.L. 1848, qs. 3205-6).

²⁶ Ward, *Ev.*, 1832, qs. 1983-2015. Spooner later stated that the idea of expansion was Castlereagh's and that it included an extension of inconvertibility for two more years (*Ev.*, 1857, q. 3573).

²⁷ Smart, *Economic Annals of the Nineteenth Century, 1821-1830* (1917), pp. 341-342.

the crisis.²⁸ Some of the members of the Bank Charter Committee were apparently critical.²⁹

Ward on the whole defended the policy. Experience in 1820 and 1821 had shown, he believed, that the large repayments of advances in connection with Resumption had been too great and that "in 1822 it was necessary to relax." The Government had a clear right to try to restore prices in some degree to relieve the distress. Moderate speculation was a good rather than an evil. Moreover, the consequence of the Bank's failure to increase securities was to "attract" bullion, which was accumulating to a greater extent than the directors desired. In January, 1824, when the Government approached the Bank regarding an advance in connection with converting the 4 per cent stock, the bullion was £14,100,000, the largest amount ever held. As long, therefore, as the circulation could be increased with a favorable exchange and a sufficient supply of bullion, the public, he thought, had a right to obtain action upon prices.³⁰ But Ward agreed that relieving the distress was not the sole purpose of making the advances. They were also for the purpose of aiding the Government's conversion operations, and he defended the credit expansion partly on that ground.³¹

It is noteworthy that the other directors did not defend the aim of relieving the distress through currency expansion. Palmer's defense of the Bank's action was that until October, 1824 the increase of securities was equal only to the growth of deposits and surplus profits. The advances authorized in 1824 were justified, he believed, by the state of the Bank's bullion and the state of the exchange. His explanation was not altogether consistent. He claimed that the reduction of the interest on the government stock was an important cause of the panic but omitted to point out that the reduction was associated

with the cheap money policy at the Bank.³² Richards, who was Deputy Governor during the panic, also claimed that the reduction of interest on the long term debt was largely responsible for the speculation and panic that followed. It drove individuals into fresh channels for employment of their money. At the same time he claimed that the security purchases were justified by the amount of the bullion reserve.³³ Norman (much later) denied that there was any connection between the security purchases and the speculation from 1823 to 1825.³⁴

Thus the policy of credit expansion for the purpose of raising prices and stimulating recovery was generally repudiated. The criticisms were not generally based upon the assumption that security purchases were objectionable in themselves.³⁵ This was the basis of Mushet's criticism,³⁶ but what most critics objected to was the cheap money policy as such, regardless of the procedure by which it was made effective.

It is interesting to note that in later crises it was not the Bank's security operations but its rate policy which came in for criticism. The psychological importance of the rate became very much greater and that of security opera-

²⁸ Ev., 1832, q. 606 and memorandum following his evidence.

²⁹ Ev., 1832, qs. 4957-70. The Bank officials held that the Government was responsible for the accumulation of such a large reserve in the first place. The Bank was first told that it must provide gold for the redemption of the small notes (including those of the country banks), and then in 1822 the small note privilege was extended. See Richards, qs. 4958-59 and Palmer, memorandum following his evidence. In criticism of this position Tooke pointed out that the change of the Government's policy with regard to the small note issue was announced in April, 1822, and that as late as February, 1823 the Bank's reserve was only about £10,000,000. The Bank, he thought, could scarcely blame the Government for the growth of bullion when its securities continued to decline in 1823. (*History of Prices*, II, 174-176.) Both sides argued as if the Bank could control its bullion holdings. But I believe Tooke assumed a quicker response of bullion to security changes than the Bank directors.

³⁰ Ev., 1857, qs. 3576-79.

³¹ The Bank's announced policy in 1832 of issuing against government securities rather than discounts, it should be noted, met with approval. See Gurney, for example, Ev., 1832, q. 3757.

³² *Effect of the Issues of the Bank of England*, pp. 157-158, 181. Mushet's objection was that securities purchased bore no relation to the legitimate demands of trade. Later Gilbert raised a similar objection to the Bank's buying government securities (Ev., 1841, qs. 1026-28).

³³ Ev., 1832, qs. 3760-64. Gurney states elsewhere that prior to the panic "speculative transactions in goods were not very prevalent," and that the large increase of issues arose very much from the continued importation of bullion (qs. 3507, 3670).

³⁴ See, for example, q. 2047.

³⁵ Ev., 1832, qs. 1896-1912, 1962-2015. Ward put part of the blame for the unfavorable exchange on the country banks (q. 1909).

³⁶ Ev., 1832, qs. 2044-46.

tions much less. This was partly owing to the smaller extent of security operations. However, during the years 1842-1844 the Bank purchased £5,000,000 of stock and private investment securities taken together, and these purchases contributed toward depressing the rate in 1843 and 1844. But they were little referred to during the discussion following the panic. Cotton was asked if the purchase of £2,000,000 of railways bonds had not tended to cause speculation. He claimed that the operation produced no such effect.³⁷ The point was not pressed.

3. *Sales of Securities with the Object of Extending Greater Accommodation to the Discount Market and of Strengthening the Reserve*

Down to 1819 the weight of opinion was against the view that a shift from government securities to discounts gave any greater accommodation to the discount market, though there was no unanimity. Henry Thornton in his evidence before the Lords Committee in 1797 stated that, in relieving a strain, it was immaterial whether the Bank issued additional notes by means of discounts or by the purchase of government securities.³⁸ In his book he stated that an increase of the Bank's discounts accompanied by an equivalent reduction of government securities would give no relief to the market.³⁹ It is evident that he desired to emphasize the monetary aspect of an acute credit shortage.

Horner in reviewing Thornton's book criticized this position. He argued that notes of the same sum issued through advances to the government were less adequate to the wants of commerce than if they had flowed in through the channel of discounts.⁴⁰ The basis of his criticism is not altogether clear, but he apparently thought that the money market was not sufficiently fluid to dispense with the aid of the Bank in distributing credit.

On being asked by the Commons Committee in 1819 to comment on Thornton's position,

Alexander Baring stated that, so far as the circulating medium was concerned, it made no difference whether the Bank discounted or bought securities. But he thought that the use of so much capital given to traders must be a great facility to those to whom it was given, and that it was important whether the Bank granted the usual discount facilities. He was asked more specifically: if the same invariable sum were issued by the Bank, would not the same proportion be applied to discount regardless of the mode of its issue? He thought not. He could not see how the private capital of bankers was increased by Bank advances to the government. In his opinion the question of more or less capital for the purposes of trade had nothing to do with the facility or distress from more or less circulating medium. Thus he confused the question of central banking procedure with one involving the difference between an increase of real capital and an increase of money.⁴¹

Harman, however, thought that it made no difference whether the Bank issued against discounts or government securities, provided the amount were the same. Samuel Thornton thought that it made very little difference. The Lords Committee⁴² in 1819 and Ricardo⁴³ likewise held that notes issued against government securities gave the same facilities to commerce as those issued against discounts. Ricardo pointed out that the total amount of capital devoted to trade would not be affected.

At the Bank Charter inquiry the point was again raised. Grote is asked if the Bank gives any greater accommodation to the commercial world when it increases discounts but sells securities by an equivalent amount. "I admit," he replies, "that by selling Exchequer bills, they deprive private capitalists of the power of discounting to an extent exactly equivalent to the fresh discounts which they take in; and therefore, taking private discounters as one aggregate body, the applicants for discount lose as much in one way as they gain in the other. But I am inclined to think that the

³⁷ Ev., H.L. 1848, qs. 3205-12.

³⁸ Ev., H.L. 1797, pp. 46, 49-50.

³⁹ *Paper Credit*, pp. 180-181.

⁴⁰ Francis Horner, "An Inquiry into the Nature and Effects of the Paper Credit of Great Britain. By Henry Thornton," *Edinburgh Review*, 1 (1802), 198.

⁴¹ Ev., H.C. 1819, pp. 201-202.

⁴² Second Report, H.L. 1819, p. 9.

⁴³ *Principles*, McCulloch ed. of *Works*, pp. 219-220. *Plan for the Establishment of a National Bank*, McCulloch ed. of *Works*, pp. 504-506. Ev., H.C. 1819, p. 139.

Public would interpret the matter otherwise, and would feel much additional uneasiness and alarm if at those periods of pressure the Bank were not open for discount. . . ." First, he states, the commercial world has accustomed itself to the routine of the Bank and looks constantly to it as the great center of discounts, especially in difficult times. Secondly, the Bank is accessible to those who may not know where to find an individual discounter. During moments of distress private bankers and brokers will assist none but their permanent connections; and if at such a time one is thrown out of his accustomed line of discount he will not know where to find a substitute. "If the Bank is open for discount, a substitute is in some measure provided, for a man can get to the Bank without that special, permanent, and exclusive connexion which he preserves with his own Banker, and which cuts him off from all other Bankers." ⁴⁴

This statement perhaps epitomizes the objections to the view that the market was concerned only with the total of the Bank's securities. Grote was anxious to show that there was need for a lender of last resort and that the money market was far from being fluid during a period of credit shortage. This point was well taken. The cash resources of the market of a given amount had quite a different significance when they could be replenished by going to the Bank from what they would have had if the discount privilege had not been open. I believe this was what was mainly in the minds of those who argued that the Bank must issue partly against discounts. Perhaps some of those who argued that the Bank could give the same facilities by issuing wholly against government securities were thinking of periods of easy credit. But on the whole they seem not to have appreciated fully the need for a lender of last resort.

Nevertheless there was a certain confusion in Grote's discussion. The true alternative presented to the Bank was not between refusing to discount and selling securities; but between allowing the market to apply for a smaller amount of discounts and compelling it, through the sale of securities, to apply for a larger amount.

From 1832 the Bank directors frequently expressed the view that the Bank could aid the discount market by changing from government securities to discounts. Norman stated that during a drain the Bank usually sold Exchequer bills in order to increase the "fund disposable for discounts." It was not desirable for the Bank to reject good bills, so in order to maintain total securities at the same level it was necessary to sell Exchequer bills as the demand for discounts increased. Norman admitted that the sale of securities tended to reduce the discount facilities in the market and thus to increase the demands upon the Bank, but he thought that it would not do so to the full extent of the sale. Also, the sale of securities, he believed, would probably raise the market rate to the Bank rate and the higher market rate would cause the vacuum in the circulation to be filled in part by issues against bullion. ⁴⁵

I believe Norman was confusing two different situations. Where the market was in a position to reduce reserves, the sale of securities would not cause discounts to increase by an equal amount. But it was precisely during periods when there was no such slack to be taken up that the demand for discounts appreciably increased, and in such a case the sale of securities would add to the original demand for discounts by the full amount of the sale. Furthermore, causing the market rate to rise to the level of Bank rate would not be consistent with giving greater accommodation to the discount market.

Palmer also subscribed to the view that, when there was no real stringency, the Bank could give additional accommodation to the discount market by exchanging Exchequer bills for discounts. ⁴⁶ In later years, in discussing the credit situation of 1830-31, he stated that as the market rate rose gradually to Bank rate the Bank met the increased demand for discounts by selling government securities. ⁴⁷ During the panic of 1847 the Bank officials apparently believed that they could aid the discount market by sell-

⁴⁴ Ev., 1832, qs. 4771-73.

⁴⁵ Ev., 1832, qs. 2394-2458.

⁴⁶ Ev., 1832, qs. 148-151, 177. But he pointed out that during periods of discredit total securities must be enlarged, that notes drawn in through the sale of securities would be taken out in discounts (Ev., 1840, qs. 1413-24).

⁴⁷ Ev., H.C. 1848, q. 2207.

ing securities.⁴⁸ And Loyd stated that the Bank granted such advances as the realization of its securities permitted.⁴⁹ Again during the panic of 1857 the Bank sold securities with the object, according to the Governor, of assisting the discount market.⁵⁰

To what extent the directors generally were motivated by such considerations is not altogether clear. One suspects that the purpose of selling securities in periods of moderate drain was to bring additional pressure without raising Bank rate, or without raising it so much. Within certain limits the market rate was sensitive to the volume of discounting as well as to Bank rate. And in periods of panic one suspects that securities were sold because there was not sufficient faith in the rate. But no doubt in part, at least, the security operations were undertaken with a mistaken view as to their real consequences.

It was asserted also that the object of selling securities during crises was to strengthen the reserve, both by drawing gold from abroad and by taking notes from the money market. Needless to say, the aim of strengthening the reserve at the expense of the market was not consistent with giving additional aid to the discount market. Harman stated that the sale of securities in 1825 was for the purpose of checking the drain.⁵¹ Morris explained that the Bank sold securities during the panic of 1847 in order to strengthen the reserve, and that except for the Treasury Letter it would have sold additional amounts. He believed that the Bank could

⁴⁸ Cotton stated that the Bank would have given all support to the discount market possible, even at considerable sacrifice of its security holdings (Ev., H.C. 1848, q. 3942).

⁴⁹ Ev., H.C. 1848, q. 5232.

⁵⁰ Neave, Ev., 1858, qs. 340-353, 409. Weguelin, before the panic, stated that the Bank sold securities "with the view of being able to assist the commercial public, who in those times of rising interest and scarcity of money are apt to look to the Bank more than they have been accustomed to do at other times." However, he claimed that the Bank would not sell securities when a scarcity of money was "acting strongly upon the market," but only when the directors could foresee a scarcity of money. Proceeding further, he stated that the Bank preferred to hold commercial bills during a period of adverse exchange because they gave a greater power of action upon the exchange. (Ev., 1857, qs. 521-526.) Thus he seemed really to mean that the Bank sold securities to reinforce the effect of the rate and the limitation of the term of bills.

⁵¹ Ev., 1832, qs. 2205-6.

have taken notes from the market by such means.⁵² The Deputy Governor during the panic of 1857 held a similar view.⁵³ But the Governor held that discounts would have increased as fast as securities were sold, so that no notes would have been drawn in.⁵⁴ Nevertheless the Bank sold securities,⁵⁵ just as it had done during the panics of 1825 and 1847.

Perhaps the most plausible explanation of the sales of securities during panics is not that they were primarily intended to aid the discount market — though that may have been the mistaken belief on the part of some — but that they were intended to aid the rate in creating pressure. Inasmuch as the market was in the Bank at such times, it would seem that there was no necessity for such sales in order to make effective high market rates. But the Bank officials were not willing to follow to its logical end the idea that they could only increase the terms of credit. They seemed to revert to the idea under stress of panic that they might forcibly contract securities. The security sales were thus measures of desperation.

4. Conclusion

Open-market operations in the sense that the Bank bought and sold definite amounts of securities at its own initiative existed on a very limited scale. Until after the panic of 1825 even the amount of "Exchequer bills purchased" was determined largely by the Treasury. The Bank was requested to support the market whenever bills threatened to go to a discount and, at least until 1819 and probably for several years afterwards, it seldom bought bills under any other circumstances. The advances to pay dissentients were in the same general category: the Bank in effect undertook to maintain money rates at such levels as would make the Treasury's refunding issues attractive to the public — making whatever advances

⁵² Ev., H.C. 1848, qs. 2641, 2780-7. Palmer, however, was of the opinion that the Bank could not even have found a buyer for any appreciable amount of securities during the panic (q. 2129).

⁵³ Dobree, Ev., 1858, q. 841.

⁵⁴ Neave, Ev., 1858, qs. 340-349, 408. He pointed out that such was the result with regard to the £3,000,000 of securities which the Bank did sell. Weguelin before the panic took a similar view (Ev., 1857, qs. 296-300).

⁵⁵ Report, 1858, app. 15.

to the Treasury were necessary for the purpose. By the late 'twenties, however, the Bank seems to have purchased such amounts of Exchequer bills as suited its own purposes, though it was still subject to call from the Treasury to support the market if circumstances made it necessary. The Treasury went on this assumption in fixing the rate on the Exchequer bill offerings. And it must be remembered that current advances to the Treasury (as distinct from Exchequer bills purchased) continued to be beyond the Bank's control. So the change in the situation was not very substantial.

Changes in Exchequer bills purchased, in stock, and in private investment securities were quite small in the 'thirties and 'forties in comparison with changes in discounts and in advances to the market. For the most part changes in investment holdings were rather gradual and, except for sales during crises, apparently were not made with immediate reference to the credit situation.

According to the early twentieth-century view, the purpose of selling securities was to make Bank rate more effective. In the period we are studying this process was understood, but it was generally not for such a purpose that sales were made. The theory defended by the Bank officials and others (from 1832) was that securities were to be sold in order to give greater accommodation to the discount market and in order to strengthen the reserve; though there was disagreement with regard to the latter aim. Needless to say these motives were antagonistic. The belief that the Bank by selling securities could extend greater accommodation to the discount market (in any practical meaning of the phrase) rested upon an inadequate appreciation of the fact that the demand for discounts during a period of pressure arose from a shortage of member-bank reserve. Forcing the market to apply for an additional amount of discounts and advances was of course a tightening, and not an easing, influence, assuming the conditions of discounting to remain the same. While individuals may have economized on their cash resources in buying securities, the banks losing the reserve as the result of the sale would not be able to reduce their cash requirements during a general credit short-

age. They would drive traders or bill brokers to the Bank for additional discounts. At various times the Bank officials recognized that the market demand for discounts would be automatically increased by the amount of securities sold during a crisis, yet as late as 1857 the Governor stated that securities were sold to give additional accommodation to commerce.

The Governor during the panic of 1847 was of the opinion that the Bank could replenish its note reserve at the expense of the market by selling securities. But the more common opinion was that the sale of securities would aid only in creating a more favorable exchange. When it is realized, however, that the market was already heavily dependent upon the Bank during a crisis, it is seen that there was no need to sell securities to make effective such rates in the market as the Bank desired. Nevertheless securities were sold during every crisis. Doubtless the real explanation is that the Bank officials had a latent fear that raising the rate was not enough. Feeling the contagion of the panic themselves, they sought desperate measures to strengthen their position. And, of course, by placing various limitations upon the kinds of bills acceptable, while at the same time forcing the market to discount a larger amount, they did increase the credit stringency to a greater extent than was indicated by Bank rate.

Security operations with the definite aim of relieving the distress and raising prices were undertaken at the request of the Treasury beginning in 1822. Partly as a consequence of the panic of 1825 such a policy fell into disrepute. It was not the purchase of securities as such which was chiefly criticized: it was a cheap money policy in general having for its aim the increase of prices and relief of distress. It was insisted that the Bank should be guided solely by the state of the exchanges. This attitude followed from the contemporary view as to the nature of the gold standard. It was believed that commodity prices were governed by natural conditions and that any stimulus given by the Bank was artificial and would lead "inevitably" to a reaction. Any temporary relief from distress would be purchased at the cost of greater hardship later on.

TABLE 7A

ADVANCES MADE BY THE BANK OF ENGLAND TO THE GOVERNMENT ON EXCHEQUER BILLS AND "ALL OTHER SECURITIES" AS OF FEBRUARY 26 AND AUGUST 26, 1815-1827^a

(in thousands of pounds)

	Advances out of unclaimed dividends ^b	Exchequer bills "issued" ^c	Exchequer bills purchased	Treasury bills for Service of Ireland	Advances to Commissioners of Woods and Forests	Advances towards the purchase of annuity (Dead Weight)	Total advances ^d
1815	877	9,401	17,755	...	...	...	28,033
	877	7,577	16,502	...	...	...	24,956
1816	877	4,500	14,488	...	...	...	19,865
	1,180	11,758	13,285	1,000	...	...	27,223
1817	974	9,000	13,320	3,080	...	...	26,374
	979	10,217	13,724	3,080	300	...	28,300
1818	1,034	9,000	14,952	2,750	300	...	28,036
	1,027	11,030	13,081	2,650	300	...	28,088
1819	1,099	6,598	13,081	2,650	300	...	23,728
	1,017	8,498	13,081	2,650	300	...	25,546
1820	1,074	6,591	12,940	2,100	300	...	23,005
	1,111	5,276	12,040	2,100	300	...	20,826
1821	1,067	3,435	11,840	...	300	...	16,642
	1,121	6,653	9,140	...	300	...	17,214
1822	1,150	3,598	9,140	...	300	...	14,188
	1,089	4,922	9,140	...	300	...	15,451
1823	1,152	3,107	10,411	...	300	...	14,970
	1,121	1,377	10,411	...	300	2,111	15,319
1824	1,102	697	10,411	...	300	3,091	15,601
	1,064	17	10,411	...	300	4,092	15,884
1825	1,048	4,186	9,411	...	...	5,035	19,679
	1,006	3,853	7,411	...	...	5,992	18,261
1826	1,002	2,487	8,327	...	...	6,908	18,724
	956	1,865	8,327	...	...	7,813	18,962
1827 ^e	1,064	3,015	6,882	...	...	8,708	19,669

^a Source: Report, H.C. 1819, app. 3; P.P. 1826, (215), XIX; P.P. 1826-27, (249), XIV.

^b The Treasury by Act of Parliament had the use of a large part of the dividends remaining unclaimed at the end of the financial quarter.

^c Advances for Supply services, for the payment of dividends, and for the payment of dissentients of 4 and 5 per cent stock.

^d Not including the permanent advance, which was increased in May, 1816 from £11,686,800 to £14,686,800, where it remained until 1834.

^e February 26.

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TABLE 7B
GOVERNMENT SECURITIES, INCLUDING ADVANCES, HELD BY THE BANK AS OF JUNE 1, 1816-1832 ^a
(in thousands of pounds)

	Deficiency bills ^b	Advances for the Supply ^c	Advances to pay the dissen- tients of 4 and 5 per cent stock ^d	Total of the preceding advances ^e	Exchequer bills purchased ^f	Total Exchequer bills held ^g	Other advances (for 1819-1825 only) ^h	Total advances ⁱ
1816 ....	...	9,565	...	9,565	13,808	23,373	...	...
1817 ....	...	9,595	...	9,595	14,406	24,001	...	...
1818	500	11,562	...	12,062	14,280	26,342	...	...
1819	2,919	5,670	...	8,589	13,081	21,670	2,650	24,320
1820	3,297	2,475	...	5,772	12,940	18,712	2,100	20,812
1821	2,910	2,412	...	5,322	9,140	14,462	...	14,462
1822	1,898	1,021	110	3,029	9,140	12,169	...	12,169
1823 ....	...	...	1,717	1,717	10,411	12,128	886	13,014
1824 ....	...	826	357	1,183	10,411	11,594	2,918	14,512
1825 ....	...	...	4,502 ^j	4,502	8,411	12,913	4,861	17,774
1826	1,107	...	1,942	3,049	8,558	11,607	...	...
1827	1,057	2,082	79	3,218	6,882	10,100	...	...
1828	3,041	...	45	3,086	6,132	9,218	...	...
1829	1,710	...	53	1,763	6,000	7,763	...	...
1830	2,895	...	24	2,919	6,000	8,919	...	...
1831	83	1,467	12	1,562	3,560	5,122	...	...
1832	3,541	...	10	3,550	3,100	6,650	...	...

^a Source: Appendices to the Bank Charter Report.

^b Report, 1832, app. 67.

^c App. 67 and 69.

^d App. 67 and 71.

^e Totals given in app. 67.

^f App. 67, 68, and 69.

^g App. 68.

^h App. 71. Treasury bills for the Service of Ireland, 1819 and 1820; Dead Weight, 1823 to 1825. June 1st data for Dead Weight not available after 1825. The book value reported Feb. 29, 1832 was £10,897,880. The Bank advanced £13,089,419 during the years 1823 to 1828 in return for an annuity of £585,740 for forty-four years beginning April, 1823. See app. 13 and 30.

ⁱ App. 71. The total does not include the permanent advance or £823,000 par value of stock purchased in 1830. See Report, H.C. 1848, app. 34.

^j The figure shown is for the Exchequer bills held as collateral by the Bank. The amount actually advanced to the Treasury was slightly less. See app. 71.

CHAPTER VIII

DISCOUNT POLICY

THE most important question of discount policy in contemporary discussion was to what extent the Bank should regulate its securities by means of discounts. At the time of the Resumption inquiry the Governor expressed the view that the Bank could control the circulation by means of discounts. But during the next decade the directors became convinced that discounts were not easily within their control. They were evidently not impressed by the arguments of critics, such as Tooke and McCulloch, that a more frequent variation of discount rate would secure a reasonable stability in the amount of discounts. The Bank, according to the directors, should ordinarily exclude most discounts by keeping Bank rate higher than the market rate. Any changes in securities should take the form of investments at the initiative of the Bank. And there were to be no changes in investments except after the accumulation of bullion over a considerable period. Thus it was made to appear that, except in emergencies, Bank notes and deposits would reflect simply changes in bullion. The quarterly advances, they explained, were merely seasonal and had no permanent effect. Other modes of access to the Bank they held to be of an exceptional nature or else ignored in this connection.

These statements give a fundamentally wrong impression of the Bank's procedure of control. The market was almost constantly adjusting reserves to requirements at its own initiative, either by going to the Bank direct or by creating such pressure as would cause others to obtain Bank funds. Before reviewing the various modes by which the public had access to the Bank, it should be observed that the various factors tending to disturb the reserve position of the London banks were of a large order of size. Unless there had been semiautomatic processes for compensating such large releases and absorptions of funds, the reserve position of the London banks would have varied within

very wide limits, much wider limits than the movement of the London circulation and bankers' balances indicates. One is impressed by the relative stability of these two items in the face of large changes in bullion, government securities, and nonreserve deposits both public and private. The presumption is that such changes were compensated by changes in earning assets in response to changing pressure in the money market. Certainly the Bank made practically no effort to compensate them with open-market operations. This presumption, I believe, is borne out by an examination of the Bank's procedure and by a study of the interrelated items in the Bank's statement.

There were periods of course when scarcely any means were left by which the market could return surplus reserve to the Bank — that is to say, when discounts and advances at the initiative of the public were almost nil. This seems to have been true during the second half of 1832 and the first half of 1833 and again in 1843 and 1844. But in the nature of the case a condition of excess reserves could be only temporary.

Let us review the various channels by which the public could take funds from the Bank at their own initiative.

(a) It has been mentioned in other connections that at certain periods of the year holders of Exchequer bills could demand cash instead of new bills and thus force the Treasury either to obtain larger advances from the Bank or to ask the Bank to support Exchequer bills in the open market. Also, until 1838 Exchequer bills could be paid into the Treasury for taxes and were used in that manner whenever they were not maintained at a premium.¹ Such methods

¹ We may place in the same category the advances to pay dissentient holders of government stock during the refunding operations of 1822 to 1825. The Bank in effect undertook to make such advances to the Treasury as were necessary to make the rate offered on the new stock attractive to the public.

were more important during the war and early post-war period than after 1825. But they were always potentially important.

(b) After 1829 the Bank made temporary advances to the market for nearly half the time in each quarter at a rate usually less than discount rate. The market could take whatever amount it required at the rate fixed in the public notice. It was no doubt owing to these advances that there was less tendency for the market to take funds via the Treasury.

(c) Beginning in 1833 the Bank made special advances to the market at a rate usually lower than discount rate. While these advances were open to the public at an advertised rate only during a part of 1835 and 1836, they were made by private arrangement with the money dealers over a much longer period. Palmer admitted that they were made until 1838; and Hankey's statements² lead one to believe that they became a permanent feature of the Bank's procedure. Though in such operations the Bank was not purely passive, it is clear that they aided the market to take more or less according to requirements.

(d) So far we have considered modes of access to the Bank available to the London money market directly. There were indirect methods by which a general tightening (or easing) of credit would cause persons outside the market to obtain greater (or less) accommodation at the Bank even though Bank rate was higher than the market rate for first class bills. Palmer explained that the Bank discounted some bills in London which, though perfectly good, could not command the lowest rate in the open market. The amount of such second grade paper was related somewhat to conditions in the money market. The curve of London discounts shows a tendency to rise with a rise in the market rate without its necessarily reaching the level of Bank rate. With extreme easing of credit even these second grade bills tended to leave the Bank's portfolio.

(e) The amount of discounts for country banks and traders also showed a general responsiveness to conditions in the London money market. It is true that the Bank rationed credit in the country instead of depending simply upon

the rate, yet it actually did accede to the demand to a greater extent when money was scarce.³

(f) Finally, when other methods of adjusting reserves failed, London traders holding first class bills and (at least after 1830) the bill brokers discounted at the Bank's public rate, which was a uniform rate until 1844. Although the market rate for prime bills was usually under Bank rate, it is a mistake to suppose that it went to the level of Bank rate only on rare occasions during the period 1826-1844.⁴

In the light of these facts it is apparent that one gets a very erroneous conception of the Bank's procedure of credit regulation by giving exclusive attention to the fact that the London rate for first class bills was usually under Bank discount rate. The real explanation of the fact that first class bills were not more frequently discounted at the Bank is not that the market was not dependent upon the Bank directly or indirectly to adjust its reserve position, but that other methods of adjusting its position were cheaper.

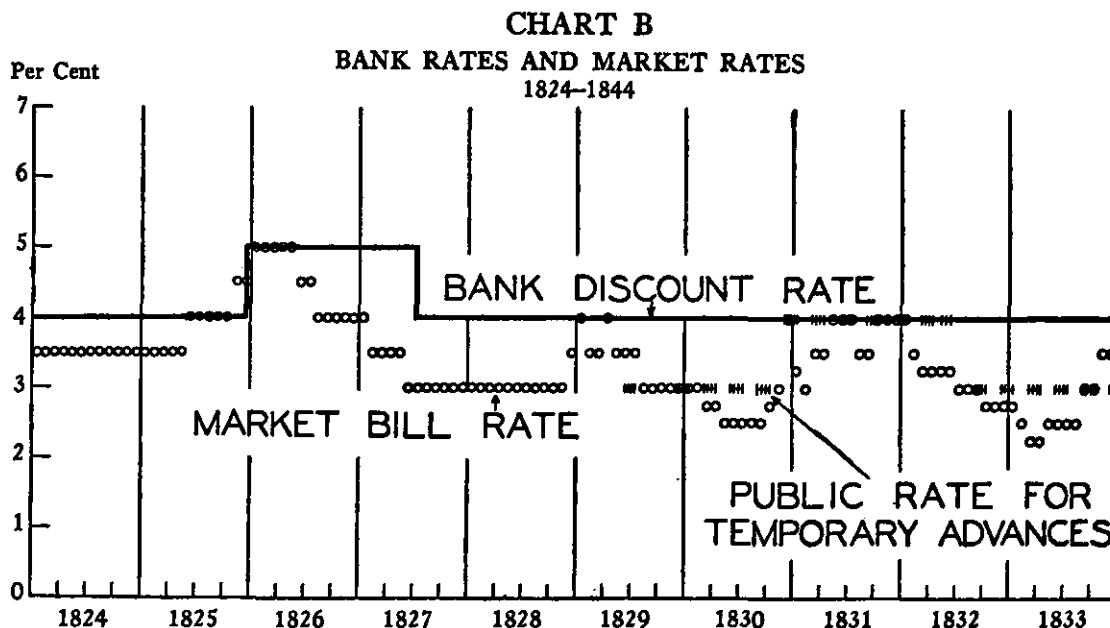
The extent to which one channel was used rather than another depended partly upon the Bank and partly upon practices outside the Bank. For example, the rate for quarterly and special advances was usually under Bank rate, but when it was fixed at the same level as Bank rate, it removed part of the incentive to get advances rather than discounts. However, the eligibility of collateral for advances was also a factor. Thus when the Bank in its notice of March 2, 1837 refused advances against government securities and required commercial bills as collateral, advances increased less than usual, while London discounts, already at a high level, increased further, the rate for the two being the same.

The Bank also helped determine the extent to which it would supply funds through traders as against the discount houses. In so far as traders in London and in the country were encouraged to come to the Bank when credit was scarce out of doors, it was unnecessary for the bill brokers to apply for aid. And by reducing the quality (not of course in the sense of security) of the bills which it would take from its

² See above, p. 77, and *Ev.*, 1857, qs. 2250-51.

³ See below, Section 3.

⁴ See the rates given in Chart B.



For Bank discount rate, see Report, 1832, app. 89; Report, 1840, app. 8; McCulloch, *Commercial Dictionary* (1850), p. 94. The term of bills eligible at the Bank was increased from sixty-five to ninety-five days in 1822; though it was again limited to sixty-five days from October 15, 1840 to June 3, 1841. For the rate for Bank advances, see Report, 1832, app. 26; Report H.C. 1848, app. 10. The periods for which advances were open to the public are indicated by the lengths of the lines representing the rates charged. The market bill rate is the rate for best bills at Gurney's. See the evidence of Chapman, 1857, q. 4876. The "Rates of Interest allowed to Bankers by Bill Brokers in Lombard-street" were given by Hankey during the examination of Newmarch (Ev., 1857, q. 1971).

regular customers at Bank rate, it permitted a further deviation of the market rate on prime bills from Bank rate. There is good evidence that by far the larger part of the discounting was done by traders even after the bill brokers were permitted to have discount accounts. We must distinguish carefully here between *advances* to the bill brokers and discounts at Bank rate.

In anticipation of contemporary discussion, we may conclude that there was no question of the Bank's controlling its securities at some predetermined level — that is to say, except when it was prepared to provide excess reserves. What the market wanted it was in the position to take, and what it did not want it was usually in the position to return. The Bank's role lay in determining the effective terms of credit.

1. Discount Procedure in London

Let us consider in more detail the Bank's discount procedure in London. Giles, Governor of the Bank in 1797, stated that the private banks (of London presumably) had been permitted to discount at the Bank in their own

names following Suspension, though not before.⁵ According to Lawson, the London banks had discount accounts at the Bank during the war period, though they seldom used them. But in 1825, he stated, London banks of the highest standing rediscounted at the Bank in order to aid their country correspondents.⁶ Glyn similarly stated that the London banks, pressed by the country banks, rediscounted at the Bank in 1825. He added that they had not done so since.⁷ It is noteworthy that Morris, in recounting the aid given by the Bank in 1847, failed to mention any given to a London bank.⁸ We may conclude that discounting for the London banks was not very common before the panic of 1825, and that after that time it was practically nil.⁹

⁵ Ev., H.C. 1797, p. 71. Referred to in W. T. C. King, *History of the London Discount Market* (1936), p. 13.

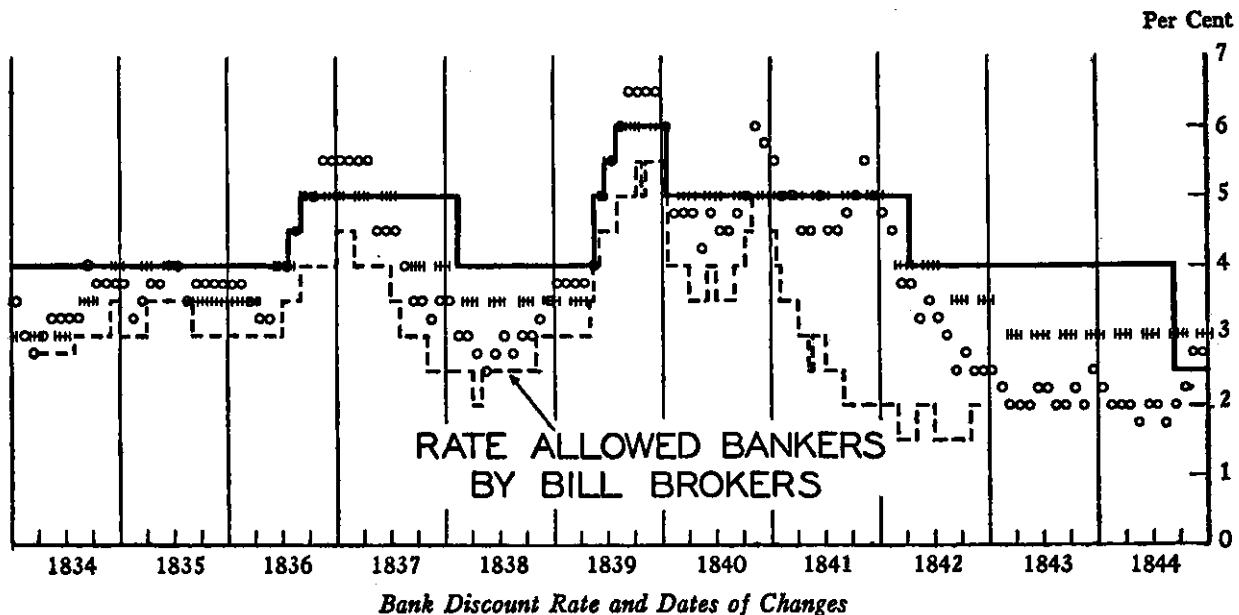
⁶ W. J. Lawson, *History of Banking* (1850), pp. 255-256. Lawson was for many years connected with a London bank and knew their practices at first hand.

⁷ Ev., H.L. 1848, q. 1916. He added that they had a "Right" to look to the Bank for accommodation in 1847.

⁸ Ev., H.C. 1848, q. 2645.

⁹ Report, 1858, app. 13 shows that "English banks and

CHART B (continued)



Rate	Rate	Rate	Rate
May 13, 1773 5 ^a	July 21, 1836 4½	May 16, 1839 5	Jan. 23, 1840 5
June 20, 1822 4	Sept. 1, 1836 5	June 20, 1839 5½	April 7, 1842 4
Dec. 13, 1825 5	Feb. 15, 1838 4	Aug. 1, 1839 6	Sept. 5, 1844 2½
July 5, 1827 4			

^a Rate on foreign bills was raised to 5 per cent, which was the rate previously fixed (1746) for inland bills.

Just when the bill brokers or money dealers, as they later came to refer to themselves, were first permitted to discount at the Bank is not altogether clear. Norman stated that they were permitted to open discount accounts commencing in November, 1830.¹⁰ But we can not assume that they were not permitted to discount before then in periods of difficulty. Thomas Richardson in 1810 stated that the London bankers not only placed money with the bill brokers which they could call at an hour's notice, but that the bankers also borrowed from the brokers for a day at a time. Such a practice would seem to require access to the Bank on the part of the bill brokers in periods of pressure, but Richardson made no reference to obtaining funds there. He stated that he borrowed from one bank to pay another.¹¹ Gurney stated

that formerly (presumably before 1830) the bill brokers did not have the power of discounting at the Bank.¹² But while we can not conclude from this meager evidence that the bill brokers never received any aid from the Bank before

Richardson claimed, had enabled the London bankers to reduce their reserves by about one eighth.

The main business of the bill brokers at this time was buying and selling bills outright and not carrying them with borrowed money. Bills were taken from mercantile firms and country bankers and sold to London and country bankers. Much the greater amount was taken from London merchants and sold to London bankers. Richardson's firm, which later became Gurney's, was the largest dealing with the country bankers. He took bills from the manufacturing districts in the country, particularly Lancashire, and sold them in Norfolk, Suffolk, and other districts where there was a surplus of banking funds to be invested. To some extent he sent bills drawn in London by one merchant on another to the country. He charged the seller of the bill ¼ per cent commission, but made no charge to the buyer. He did not endorse his bills. (Ev. 1810, pp. 122-125. See also King, *History of the London Discount Market*, ch. i.)

¹⁰ Ev., H.L. 1848, q. 1344. In 1836 he stated that he had no diminished facility at the Bank if he were willing to pay their price (Ev., 1836, q. 3606).

bankers" received discounts and advances of £1,076,000 from the Bank in London during the last three months of 1857. But it can not be assumed that these were London banks.

¹⁰ Ev., 1840, qs. 2317-28.

¹¹ Richardson, Ev., 1810, pp. 147-148. This practice,

1830,¹³ it is clear that they did not receive accommodation in the regular course of things before then.

Thus with rediscounting by the London banks never very common (except during the panic of 1825), and with discounting at the Bank by the bill brokers unimportant or nil until after 1830, the channel for giving discount facilities to the money market before that time was through the London traders.¹⁴ The London banks could adjust their reserve position by forcing the traders to resort to the Bank for a greater or less amount.¹⁵ After 1830 the Bank gave discounts on an important scale to bill brokers as well as to traders, so that the London banks could adjust their reserves by driving both traders and bill brokers to the Bank.

King takes the position that the system whereby the bill brokers went to the Bank for discounts was successor to one of rediscounting by the London banks. He says:

If the London banks were no longer to be the channel through which this new credit was made available, then some other channel had to be found. To have left the application solely to the public would have caused grave disturbance: in a pressure the private banks, even though they avoided infringement of their rule, would have been obliged to refuse discounts to their customers, and this refusal would only have intensified the discredit, and produced needless injury to the banks' reputations. In addition, application to the Bank would have been delayed for a longer period than was desirable, for the public would not quickly alter its normal course of business, and the delay would have tended to increase

¹³ Glyn, when later discussing the procedure established in 1858 by which the bill brokers were denied discount accounts but were to be given advances at the discretion of the Bank, stated that the Bank was only returning to an older practice. If this were literally true, it would imply that the Bank gave some aid to the bill brokers before 1830. (Ev., 1858, q. 714.)

¹⁴ Cf. Hawtrey, *Art of Central Banking*, pp. 117-118.

Norman stated that discount accounts were opened only by the Court of Directors and were confined to persons in trade. For some persons, he stated, the Bank performed the regular business of banker; for others, it merely discounted bills. (Ev., 1840, qs. 2324, 2386.) For a description of the services performed by the Bank for its customers, see Palmer, Ev., 1832, qs. 322-329; McCulloch, *A Dictionary, Practical, Theoretical, and Historical, of Commerce and Commercial Navigation* (1837), p. 82; Thomson Hankey, *Banking: Its Utility and Economy . . . with an Addition Respecting the Working and Management of the Bank of England* (1860).

¹⁵ This they could do by refusing to buy bills from the bill brokers as well as from the traders direct.

the ultimate demands. Moreover, the new credit would have been spread far less evenly or readily through the business world. And in an extreme pressure, involving withdrawals of deposits from the private banks, not even a refusal of all fresh loans would have saved them from being forced to abandon their rule.¹⁶

It does not seem that King offers convincing evidence that the London banks rediscounted to any appreciable extent except during the panic of 1825. Richardson, for example, assented to the statement that the Bank "afforded increased means to the bankers of obtaining a supply of notes at short notice, through the medium of the bills sent to the Bank to be discounted by their customers."¹⁷ As to the point that additional discounts to traders would not have been given quickly enough to prevent a credit shortage, it should be borne in mind that from the standpoint of the aggregate discounts of the public a relatively small shift from the private banks to the Bank would have meant a relatively large increase in the reserves of the London banks.

Even after the bill brokers were permitted to go to the Bank, discounts for traders continued to predominate until past the middle of the century. The bill brokers themselves pointed out that they had no occasion to discount at the Bank in periods of easy credit.¹⁸ And, if the panic of 1857 was typical, discounts for traders were the greater during periods of pressure. During the last three months of 1857 the merchants and traders of London obtained discounts and advances of £14,440,000, whereas the bill brokers and discount companies obtained only £9,456,000.¹⁹

So long as the traders had free access to the Bank it would seem that any discounting by the bill brokers would be an indication of lack of fluidity in the money market. It must be remembered that the London banks, since they considered their advances to the bill brokers as part of their reserve, were prepared normally to make such advances at a lower rate than they charged merchants for prime bills. Thus if the

¹⁶ *History of the London Discount Market*, p. 88. See also pp. 13, 37, 62-70.

¹⁷ Ev., 1810, p. 148. See also Thornton, Ev., H.C. 1797, p. 55.

¹⁸ Gurney, Ev., H.L. 1848, q. 1344.

¹⁹ Report, 1858, app. 13. In addition, the merchants and traders in the country received £3,535,000.

bill rate went to the level of Bank rate, they might still supply the bill brokers at a rate under Bank rate. And as long as this condition prevailed the bill brokers would have no incentive to go to the Bank. But the London traders, having no such alternative — being charged a rate as high as or higher than Bank rate by both the London banks and the bill brokers — would be driven to the Bank, and the aid they received would enable the London banks to adjust their reserve position. The chart of rates²⁰ seems to support such a conclusion. The rate allowed the London banks by bill brokers rarely equaled Bank rate during the period before 1844.

Nevertheless I do not believe one can push this reasoning too far. Money markets become less fluid in periods of pressure. It seems not improbable that the London banks in such periods preferred cash to call money beyond a certain point nearly regardless of call rates, and therefore refused to supply all the funds the bill brokers required. And the bill brokers in such circumstances may have refused to allow the banks as much as Bank rate even though they were driven to obtain a portion of their funds from the Bank. In other words, the conditions of the supply and the demand for funds at such times were not reflected accurately in rate relationships. Thus we may conclude that the bill brokers as well as the traders discounted at the Bank in periods of difficulty, but that at other times the banks could adjust their reserves by sending traders to the Bank with less pressure than was required to send the brokers there. This applies of course only to *discounting* by the brokers. They regularly went to the Bank for quarterly advances and over a period of at least several years they obtained special advances at less than Bank rate.

In periods of easy credit, when traders with prime bills could discount with the London banks and bill brokers at less than Bank rate, it was still profitable for traders with second grade bills²¹ to discount at the Bank. The amount of such discounts, however, would be to some extent sensitive to the rate out of doors.

²⁰ See Chart B, above.

²¹ Palmer stated that the Bank took bills which were known to be good even though they could not command the best rate in the market (Ev., 1832, q. 172).

As the market became more depressed there would be some shifting from the Bank to the private banks.²² Thus variations of market rate below Bank rate would lead to some release and absorption of funds by the Bank.

We may conclude, despite statements of the Bank officials to the contrary, that the London discounts of the Bank were an important means by which the market adjusted reserves to requirements. An increase of the market rate drove traders to the Bank, and even where the rate for prime bills was less than Bank rate there was some release of funds through the discount of second grade bills. When the market lacked fluidity to the point where the London banks could not supply all the requirements of the bill brokers at less than Bank rate — which was the case in periods of pressure — the bill brokers as well as traders with prime bills were driven to discount at the Bank.

2. Other Methods Intended to Limit Discounts Besides the Rate

The usury laws until 1833 prevented the Bank from raising the discount rate above 5 per cent,²³ and it was partly owing to this circumstance that other methods were devised with the aim of limiting the volume of discounting. But these other methods did not owe their existence simply to the usury laws. It was not the inability to raise the rate in 1825, for example, which caused the Bank to refuse to discount; the directors felt that they were in no position to discount at any rate. Furthermore

²² Gilbert believed that most of the mercantile firms with a discount account at the Bank maintained an account with another bank, and some also with a bill broker (*A Practical Treatise on Banking*, vol. 1, 5th ed., 1849, p. 172).

²³ Other lenders found ways of evading the usury laws, and even the Bank made "continuation" loans (by buying stock for cash and selling for account) at much higher rates than 5 per cent. See the evidence of Loyd and of Chapman, 1857, qs. 3775-76, 4884. Gurney stated that the usury laws were generally evaded on the Stock Exchange, and that rates had gone to 20, 30, and 40 per cent for short periods (Ev., Select Committee on Manufactures, Commerce, and Shipping, 1833, qs. 242-350). The examiner of Glyn stated that the bankers during the panic of 1825 sold stock for cash and bought for twenty-five days delivery at prices that made the loan cost 72 per cent per annum (Ev., 1832, q. 2950). Thomas Attwood said that the bankers of Birmingham charged $\frac{1}{4}$ per cent commission plus 5 per cent discount and had done so since the war (Ev., 1832, qs. 5586-89). See also Feavearyear, *The Pound Sterling*, p. 228.

the Bank resorted to other measures besides raising the rate after the usury laws were modified.

During the Restriction period the Bank sometimes limited the amount of bills that it would discount for particular parties. The amount of accommodation extended was supposed to be somewhat in proportion to the normal amount the person was entitled to receive.²⁴ Samuel Thornton thought that this was a more desirable procedure than reducing the term of eligible bills, a mode followed by the Bank of France.²⁵ How effective it would have been in reducing total discounts in a period of pressure is doubtful. It is significant that there was a rapid increase in private securities during the period 1795-1810.

Tooke claimed that the limitation of the term of eligible bills to sixty-one days was an important factor in controlling the amount of discounts during the war period. He pointed out that bills of longer term were frequently charged a higher rate than 5 per cent in the market by means of commissions or other subterfuges. It is to be observed, however, that eligibility was a more important factor in a period such as 1810, when the market was discounting some £18,000,000 to £20,000,000 at the Bank, than in a period such as 1817-18, when it was discounting a much smaller amount. In a period such as the latter there would be no difficulty in getting enough short bills to take to the Bank.

This method of control was supplemented, Tooke believed, by the periodical refunding of Exchequer bills by the Treasury. Thus the reduction in the supply of short term investments kept the market rate low and reduced the number of applications at the Bank.²⁶ This reason-

ing is fundamentally sound but, instead of assuming, as Tooke does at this point, that the amount of Bank discounts is the simple resultant of the difference between the market rate and Bank rate, it would be more accurate to say that the Bank and the Treasury increased the effective terms of credit generally without having that fact reflected fully in the rate for short term commercial bills and Exchequer bills. The increased scarcity of Exchequer bills and eligible commercial bills made the money market less liquid than it otherwise would have been, and therefore made the banks less willing to invest in paper of a less liquid character, such as long bills, mortgages, and government stock.

After the war the Bank had little occasion to ration discounts until the panic of 1825. During the panic it began refusing discounts without at first increasing the rate to the legal maximum of 5 per cent, so little was its faith in the efficacy of an advance of the rate in the situation confronting it. Hawtrey states that the Bank "continued to discount bills of the type it was always accustomed to take."²⁷ The implication is that there was only a shortage of eligible bills. This was not the main difficulty and at first it was not the difficulty at all. According to Rothschild, the Bank refused to discount.²⁸ The difficulty was that the Bank was trying to protect its dwindling reserve by refusing credit in any form. Once the Government assumed responsibility for liberal accom-

ods the refunding of Exchequer bills by the Treasury and their purchase by the Bank. Though it is true that both these measures had the immediate effect of depressing the market rate for Exchequer bills, it was a mistake to suppose that their effect upon the general credit situation was similar. The first was deflationary; the second inflationary. The refunding of Exchequer bills created a shortage of secondary reserve and made the banks less willing to expand, for they could not substitute stock entirely for the Exchequer bills refunded. It thus widened the spread between the rate for paper serving as secondary reserve (along with Bank rate) and the rate on other paper. The purchase of Exchequer bills by the Bank, on the other hand, tended to give the market primary reserve instead of secondary reserve. It made the banks more willing to increase their holdings of less liquid paper as well as paper qualifying as secondary reserve.

²⁴ *Art of Central Banking*, p. 121.

²⁵ *Ev.*, 1832, qs. 4846, 4896. See also Feavearyear, *The Pound Sterling*, p. 220.

²⁶ Henry Thornton, *Paper Credit*, p. 179; Whitmore, *Ev.*, 1810, p. 89. A Minute of the Court of Directors on December 31, 1795 stated that in the future, whenever bills presented were in excess of the amount to be taken on that day, "a pro rata proportion of such Bills in each parcel as are not otherwise objectionable, will be returned to the person sending in the same, without regard to the respectability of the party sending in the Bills, or the solidity of the Bills themselves" (Report, H.L. 1797, p. 95). See also Feavearyear, *The Pound Sterling*, p. 227.

²⁷ *Ev.*, H.C. 1819, p. 86.

²⁸ *History of Prices*, vol. 1, pp. 159-162. At one point in his discussion Tooke seemed to consider as alternative meth-

modation,²⁹ the Bank not only discounted the bills which it was accustomed to take but it made advances in any form that seemed reasonably secure. Probably in large part these advances were secured by government stock and Exchequer bills, but other types of security were accepted.³⁰ Palmer as well as Harman stated that the Bank advanced on all sorts of securities without much inquiry as to their nature.³¹ Advances against government securities were not an innovation, as they had been made on a small scale before the panic.³²

Early in 1826 the Bank departed further from its ordinary procedure by consenting "reluctantly" to the request of the Government to advance not more than £3,000,000 on the security of merchandise. Boards were established in eight cities and £366,940 were advanced.³³ Knowledge of the willingness of the Bank to make these advances, Palmer stated, "seemed to accomplish a great part of the end intended, which was to release money in the hands of other persons."³⁴

The year before the Bank Charter inquiry McCulloch argued in favor of repealing the usury laws so that the Bank could raise the rate instead of being driven, "as is every now and then the case, under the present system, to the necessity of arbitrarily rejecting good bills." Raising the rate was more uniform and impartial and placed the burden on those "*best able to bear it.*"³⁵ At the Bank Charter inquiry Palmer and Norman suggested (at least by

implication) that the usury laws should be modified, and pointed out that under existing circumstances the Bank was sometimes required to refuse certain classes of bills or limit the amount which it would take from particular parties.³⁶ The following year the Government proposed to the Bank that bills of not more than three months to run should be exempt from the usury laws, and the Bank by its silence apparently approved. The law was then modified.³⁷

The modification of the usury laws, however, did not end attempts of the Bank to limit accommodation by other means than raising the rate. In 1839 it limited the amount of accommodation for particular parties³⁸ and threatened to refuse accommodation to the bill brokers, though it did not carry out the threat.³⁹ In 1837 and again in 1839 it made temporary advances more difficult by refusing to accept stock and East India bonds as collateral.⁴⁰ And in 1840 it reduced the term of eligible bills from 90 to 60 days with the definite aim of restricting discounts,⁴¹ and without raising the rate above 5 per cent. At least through the panic of 1857 the directors were not satisfied to create general pressure by raising the rate, but continued to experiment with other methods intended to limit the volume of discounting.⁴²

3. Discounts at the Branches

One can distinguish three classes of discounts at the Bank Branches. (a) In return for not issuing their own notes (or paying away bills), some of the country banks were allowed accommodation within an agreed maximum and minimum at less than Bank rate — 3 per cent until after 1844. (b) Discounts for these banks beyond the agreed limit were taken at the public rate. The Bank discounted also at the public

²⁹ Cf. Richards, Ev., 1832, qs. 5031-65; and Harman, Ev., 1832, qs. 2219-26.

³⁰ Richards, the Deputy Governor during the panic, stated that the Bank advanced £300,000 to Pole and Company (which later failed) secured by a mortgage on Sir Peter Pole's property as well as by the deposit of bills and notes (Ev., 1832, q. 5006).

³¹ Palmer, Ev., 1832, qs. 164-65; Harman, q. 2217. Palmer said that advances against title deeds must have been considerable.

³² For advances against stock before the panic, see Report, 1832, app. 6.

³³ Report, 1832, app. 4 and 35. See also Hawtrey, *Art of Central Banking*, p. 122.

³⁴ Ev., 1832, q. 581.

³⁵ *Historical Sketch of the Bank of England*, p. 39 (McCulloch's italics). There seems to be no good ground for holding that those who have to borrow at a high rate during a crisis are just the ones most able to bear it. The statement, however, was often repeated by others. See, for example, Norman, Ev., 1832, q. 2437.

³⁶ Ev., 1832, qs. 158, 477, 2430-37.

³⁷ See Bank Charter Correspondence, etc., P.P. 1833, (352), XXXIII; Resolutions proposed by Lord Althorp in the Committee on the Bank Charter, P.P. 1833, (0.63), XXXIII. See also Feavearyear, *The Pound Sterling*, p. 234. The usury laws in 1837 were further modified so as to exempt bills up to twelve months.

³⁸ Cotton, Ev., H.L. 1848, q. 3251; H.C. 1848, q. 4431.

³⁹ Chapman, Ev., 1857, q. 5195.

⁴⁰ Report, H.C. 1848, app. 10.

⁴¹ Weguelin, Ev., 1857, q. 1265.

⁴² See Chapter XIII for later occasions on which the Bank limited the term of eligible bills and limited the amount of accommodation for individual borrowers.

rate for country banks which had no such agreements provided (as a rule) that they did not issue. (c) Discounts for traders were taken at the public rate.

Let us first consider the discounts under agreement at 3 per cent. The object of the Bank in making such agreements was evidently to extend Bank circulation at the expense of country bank circulation.⁴⁸ The line of credit for each bank was determined after considering the average of its circulation, which it agreed to abandon, or, in the case of banks which had never issued, after considering the nature and extent of its business.⁴⁴ Comparatively few banks had such agreements until shortly before the Act of 1844; the number increased only from 11 to 27 between 1832 and 1841. The number having such agreements in force increased to 43 in February, 1844; but on the other hand the Bank (apparently from 1841) had been cancelling some of the agreements, giving in return an annual compensation of 1 per cent of the country banks' former circulation.⁴⁵ The amount of discounts (or advances) under agreement increased from an average of £786,000 in 1832 to £2,858,500 on December 31, 1841 and was somewhat smaller (despite the temporary increase in the number of banks) in 1844. This amount was of course a substantial proportion of the country circulation.⁴⁶

The agreements usually called for accommodation between a maximum and minimum amount. According to Curtis,⁴⁷ the limits were about 14 per cent apart, but in fact the spread

varied somewhat.⁴⁸ Some of the agreements called for the rediscount of commercial bills, whereas others permitted advances against the deposit of bills as collateral.⁴⁹ The rate charged on such accommodation was subject to revision, but actually it remained at 3 per cent until after 1844.⁵⁰ However, concessions were sometimes made in other forms so that the real cost of the credit to the borrowing bank was less. Wright, for instance, stated that he was charged 3 per cent on £50,000 but was allowed £10,000 without interest and £350 per year for the expense and trouble of getting the notes from the Branch at Birmingham to his bank at Nottingham. In addition, the Branch transacted "nearly all" of his business without charge, so that the real cost of the credit as he estimated it was between 1 and 2 per cent.⁵¹

It may be added at this point that after the

⁴⁴ James stated that the Birmingham Banking Company's agreement was for amounts between £130,000 and £150,000; but that actually it had been permitted to receive as much as £190,000, presumably without any advance of the rate (Ev., 1836, q. 782). The Manchester and Salford Joint Stock Bank, of which James was manager in 1841, was allowed to discount from £170,000 to £200,000; any further discounts were at the discretion of the Bank of England at the public rate (Ev., 1841, qs. 1418-25). Wright, a banker at Nottingham, was allowed to borrow from £43,000 to £50,000 (Ev., 1841, q. 1593).

⁴⁵ When Palmer was Governor the banks apparently were required to rediscount commercial bills not exceeding ninety days (Ev., 1832, qs. 431-434). At a later period some of the banks were allowed to receive advances against collateral. Wright, for example, deposited bills, without restriction as to date, for an amount from 30 to 50 per cent in excess of the amount of his loan (Ev., 1841, qs. 1625-36). James, however, had a rediscount account and the bills had the same restriction as to date as any other bills discounted at the Bank (Ev., 1841, qs. 1418-20, 1435-37).

⁴⁶ Palmer gave the rate as 3 per cent (Ev., 1832, q. 60). Curtis stated that the rate had not deviated from 3 per cent but could be changed (Ev., 1838, qs. 104-109). Gibbins stated that the arrangement of the Birmingham Banking Company called for 1 per cent below Bank rate, presumably varying with it (Ev., 1836, q. 1059). James stated that his agreement ran only from year to year (Ev., 1841, q. 1428). During the panic of 1839 the rate was not raised (Norman, Ev., 1840, q. 2000). See also P.P. 1847, (503), XXXIV, p. 3.

⁴⁷ Ev., H.L. 1848, qs. 2865-71. The £10,000 without interest were supposed to "lie idle." Cf. Palmer's statement that two or three banks at a distance were charged interest only on the amounts of Bank notes which they actually issued and not the amount they borrowed (Ev., 1832, q. 887).

⁴⁸ The expressed object of the Government in requesting the Bank to establish Branches in 1826 was to improve the quality of the country paper (*Communications between the First Lord of the Treasury and the Chancellor of the Exchequer, and the Governor and Deputy Governor of the Bank of England*, P.P. 1826, (2), xrx). See also Palmer, Ev., 1832, q. 503. It seems probable that the agreements were part of a general plan for gradually getting rid of the country bank notes.

⁴⁹ Palmer, Ev., 1832, qs. 60-62.

⁵⁰ By 1845 there were forty-nine banks receiving a compensation of 1 per cent on £2,478,500 in lieu of their circulation or discount agreements.

⁵¹ Compare the following sources: Report, 1832, app. 48; Report, 1838, app. 8; Report, 1840, app. 6; Report, 1841, app. 2; P.P. 1844, (95), XXXII; P.P. 1847, (503), XXXIV; Report, H.C. 1848, app. 22. See also Curtis, Ev., 1838, q. 101; and Norman, Ev., 1840, q. 1989.

⁵² Ev., 1838, q. 103.

Act of 1844, when it was no longer possible for the country banks to resume the circulation which they had abandoned, the Bank raised the rate above 3 per cent but at the same time offered them a composition of 1 per cent per annum on their former circulation.⁵² Some banks accepted this offer, while others continued to discount within specified amounts at a rate 1 per cent under Bank rate.⁵³

Gilbart contended that the practice of discounting for the country banks under agreement weakened the Bank's control over its circulation.⁵⁴ It would have been more accurate, of course, if he had said that the Bank was prevented from raising its rate on a significant portion of its discounts. Norman admitted that the practice gave less control over the circulation at the Branches than in London, but added that it was a great public object for the Bank to increase its proportion of the total circulation.⁵⁵ Governor Curtis, on the other hand, believed that the agreements increased the control of the Bank over the *general* circulation of the country, since the Bank could sell the bills taken from the country banks in the London market.⁵⁶ There is no evidence, however, that the Bank actually sold any bills which had been acquired for its own account.

The procedure taken by itself was defective, since the country banks had a margin within which they could vary their indebtedness without any advance in the rate. Also, as the maximum amount under contract was revised from time to time, considerations of general credit policy may not have been given sufficient weight. But no single procedure is to be judged by itself. The indebtedness in London was ordinarily large enough to provide for the absorption of any reserve cash released in the extra accommodation of the country banks but which it was not desirable to have released from the

standpoint of regulating the money market. That is to say, so long as the Bank could determine the effective terms of credit in London, control was not endangered.

The Bank granted accommodation to country banks with which it had agreements beyond their regular line of credit at the public rate,⁵⁷ which was the same as the London Bank rate until after 1844.⁵⁸ In periods of difficulty it gave accommodation to other nonissuing country banks, and in rare cases to issuing banks.⁵⁹ The exact extent of such accommodation is not at all clear.⁶⁰ Rediscounting in the London money market and with London correspondents was certainly common among country banks which had occasion to resort to it.⁶¹ As the

⁵² Curtis, *Ev.*, 1838, qs. 111-114.

⁵³ The rates were certainly the same from 1839 to 1844 (*Report*, H.C. 1848, app. 15). They were probably the same before then. After 1844 the rates at the Branches were generally higher than the minimum rate in London, though in 1847 some of the Branches show minima lower than the minimum in London.

⁵⁴ Norman stated that from 1828 to 1834 discount facilities were afforded to issuing banks to enable them to pay off their small notes. Though the privilege was then withdrawn, he added that the Bank in "extraordinary circumstances" gave aid to "private" issuers. (*Ev.*, 1840, qs. 2633-34.) Gilbart stated that the Bank would not discount for a joint stock bank of issue (*Ev.*, 1837, qs. 2008, 2033). See also James, *Ev.*, 1841, q. 1433. During the panic of 1847 the Bank advanced £50,000 to a joint stock issuing bank, and offered to open a discount account if it would relinquish its issue privilege; but it stopped payment before the arrangement was completed (*Morris*, *Ev.*, H.C. 1848, q. 2645).

⁵⁵ Wylie stated at a later period that most of the banks in Liverpool rediscounted at the Branch there (*Ev.*, H.L. 1848, q. 2086). See also Thomas, *Rise and Growth of Joint Stock Banking*, p. 186.

⁵⁶ James pointed out that the agricultural districts such as Norfolk had an excess of capital, which they sent to London, while manufacturing districts such as Manchester needed to rediscount (*Ev.*, 1841, qs. 1525-30). This helps to explain Wright's statement that rediscounting was much more common among joint stock than private banks (*Ev.*, 1841, q. 1632). Stuckey claimed that it was seldom to the interest of country bankers to rediscount either at the Branch or in the London money market, as they could get the money cheaper on stock or Exchequer bills (*Ev.*, 1832, q. 1140). Stuckey's banks were in the agricultural districts, however. Loyd stated that, while many joint stock banks rediscounted, it was not considered a first rate practice, and that his house never rediscounted paper taken from customers at Manchester (*Ev.*, 1832, qs. 3275-88). According to Lawson, however, Jones, Loyd and Company of Manchester drew bills on the firm in London and discounted them, so that the difference was only one of procedure (*His-*

⁵⁷ Wright's bank at Nottingham had its agreement terminated by the Bank. In lieu of a loan of £50,000 at 3 per cent (and the other considerations referred to above), it was allowed 1 per cent on £50,000 (*Ev.*, H.L. 1848, qs. 2873-83).

⁵⁸ See Weguelin's letter to Lewis, Nov. 10, 1856, *Report*, 1857, app. 1.

⁵⁹ *Ev.*, 1837, q. 2068.

⁶⁰ *Ev.*, 1840, q. 1980. Norman was supposing a closer relation between country discounts and the country circulation of the Bank than really existed.

⁶¹ *Ev.*, 1838, qs. 125-130.

country banks had connections with the London discount market, either with the bill brokers direct or through their bank correspondents, they naturally preferred to rediscount in the market when the market rate was lower than Bank rate by more than the broker's commission, aside from any unwillingness on the part of the Bank to accommodate them. During periods of moderate pressure they probably discounted at the Bank; during periods of panic it is certain that they did. Total discounts for country banks (and not merely discounts under agreement) were reported for 1831⁶² but not again until the panic of 1857, though it is known that the amount was large in 1847.⁶³ During the last quarter of 1857 discounts and advances for country banks amounted to £5,998,000 as compared with only £3,535,000 for merchants and traders in the country.⁶⁴

During periods of low money rates the accommodation at the Branches evidently consisted of discounts for banks under agreement and discounts for traders. Traders in the country varied in their ability to get the lowest rate in the London money market. Certainly for the ordinary trader the minimum market rate was never available. Thomas Attwood stated that the rate to his customers in Birmingham re-

mained at 5 per cent plus $\frac{1}{4}$ per cent commission year in and year out.⁶⁵ Gurney pointed out that the banks in Scotland charged a rate which they all agreed on and that there was no open market.⁶⁶ It may be assumed that some traders with discount accounts at the Branches would continue to discount there no matter what the market rate was in London; otherwise it would be impossible to explain the presence of any discounts at the Branches in periods of depressed market rates aside from those under agreement. Other traders would be more sensitive to the rate in London and would find it possible to get a lower rate than Bank rate when the market was depressed, though not necessarily the minimum market rate.

However, the amount of country discounts did not depend simply upon rate relationships. The Branches refused bills if they saw fit.⁶⁷ In general the amount for each trader was prescribed in advance and could not be exceeded except with permission from London.⁶⁸ The Branches felt free also to refuse bills offered by the banks.⁶⁹ Sometimes in such cases they offered to forward the bills to a London bill broker and credit the proceeds at the Branch.⁷⁰ But such an offer was of no great importance, since the country bank could obtain the same service from its London correspondent.⁷¹ There does not seem to have been the same tradition in the country as in London that the Bank was obligated to take all good bills offered. So long as the discount privilege was open in London there was not of course the same need for it in the country.

Nevertheless, the Bank's country discounts responded in the same general way to a credit shortage as discounts in London. The amplitude of the curve of London discounts was somewhat greater than that of country dis-

tory of Banking, pp. 233-234). Gurney stated that some of the best country banks rediscounted with him (Ev., 1832, qs. 3743-44). Gibbins, however, stated that the Birmingham Banking Company did not rediscount except with the Bank under agreement (Ev., 1836, q. 997).

Regarding the question whether the new joint stock banks were responsible for a great increase of rediscounting, Gurney stated that the amount was greater than it had been in recent years, though not greater than it had been from 1808 to 1815. He believed that the paper was better than the private banks used to send to London. It was taken largely on the endorsement of the joint stock banks, as the parties to the bills were generally unknown in London. (Ev., 1836, qs. 2568-71, 2577-80, 2619, 2584-87.)

⁶² Average total country discounts were £1,718,000, of which £844,077 were discounts for country banks. But these were evidently mostly for banks under agreement (Report, 1832, app. 41-42; compare with app. 48).

⁶³ Morris referred to several individual cases of large accommodation to country banks during the panic (Ev., H.C. 1848, q. 2645).

⁶⁴ This does not include £1,297,000 for Scotch banks and £1,076,000 for English banks, which were probably country banks in part at least, from the Bank in London (Report, 1858, app. 13). These figures represent total volume of discounts during the quarter.

⁶⁵ Ev., 1832, qs. 5587-91. The Branch Bank in Birmingham, however, discounted "best" bills at 4 per cent.

⁶⁶ Ev., Committee on Manufactures, Commerce, and Shipping, 1833, q. 374.

⁶⁷ See, for example, Lister, Ev., H.L. 1848, qs. 2477-83.

⁶⁸ Curtis, Ev., 1838, qs. 88-90. Cf. Turner, q. 263.

⁶⁹ James stated that he had been refused additional accommodation when money was scarce (Ev., 1841, qs. 1423-25). See also Dyer, Ev., 1832, q. 4132.

⁷⁰ Palmer, Ev., 1832, qs. 458-64, 899. Turner, Ev., 1838, qs. 266-269.

⁷¹ Palmer, Ev., 1832, q. 910.

counts but the timing was similar.⁷² While the Bank did not give whatever amount was asked for at the rate fixed, it did in fact accede to requests for greater accommodation when credit was scarce. We may conclude, therefore, that the variation of country discounts was an important means by which the general supply of reserve was adjusted to the demand for it at the initiative of the public rather than at the initiative of the Bank.

Despite the fact that discounts of the Branches averaged considerably more than discounts of the Bank in London, relatively little attention was given to the way in which the procedure at the Branches fitted in to the general plan of control. The procedure followed was certainly not consistent with the announced plan of keeping the Bank normally out of the discount market and of taking securities only on the initiative of the Bank. Palmer, it is true, stated that the Bank ought not normally to serve as a bank of discount *in London*.⁷³ The implication was that variations in the country discounts were not a significant departure from the rule. But in fact they were an important departure from the rule.

4. *Should the Bank Regulate Its Issues by Means of Discounts?*

As was pointed out in an earlier chapter, it was more common in the 'twenties to speak of the Bank's regulating the circulation than of its controlling the money market. It was reasoned implicitly that a given rate was proper in so far as it helped to establish a desired level of the circulation. It was not until about the time of the Bank Charter inquiry that the state of the money market began to be considered as a proper criterion in itself. The transition from the old point of view to the new was of course gradual and was not complete until after the Act of 1844. When the question arose whether the Bank should regulate its issues by means of discounts, it was assumed as a matter of course, therefore, that the Bank should be able to bring its securities to some predetermined level — at least under ordinary circumstances.

When Dorrien (Governor of the Bank) in

1819 asked for the repayment of government advances it was with the idea of strengthening the Bank's control over the amount of its securities. He states that an "issue of bank paper upon government security is beyond the control of the bank; an issue upon commercial bills is always within the power of the bank."⁷⁴ He admits that the reduction of government advances would cause some increase of discounts, but not an increase beyond the control of the Bank. When money is lent upon discount, he states, the directors can check any improper speculations or any circumstances they think injurious and thus bring the issues to the level required for the commerce of the country.⁷⁵ It is not entirely certain that he meant that the level required for commerce was some predetermined level, but he certainly implied that the Bank could issue whatever amount it chose.

The idea that the Bank should exert a closer control over the amount of its securities and the circulation was also Tooke's point of departure when he argued in 1826 for more frequent variations in the discount rate. The reduction of the rate in 1822 had little effect on the demand for discounts, he stated, because the market rate fell still more. The rate should have been reduced earlier. The uniformity (i.e., stability) of the rate caused great variability in the amount of discounts, and unless there were compensating changes through other channels, it would lead to enormous changes in the circulation.⁷⁶ That is to say, in Tooke's view, the proximate goal was relative stability of the circulation and not of money rates. He argued as if the market rate might be considered an independent variable. It did not seem to occur to him that a reduction of Bank rate might lead only to a further reduction of the market rate with little change in the volume of discounting.⁷⁷

McCulloch's criticism of Bank policy was

⁷² Ev., H.C. 1819, p. 32.

⁷³ Ev., H.C. 1819, pp. 31-32; H.L. 1819, qs. 14-19, 26.

⁷⁴ *Considerations on the State of the Currency*, pp. 71-78. In his *Letter to Lord Grenville* (1819) he said it was inconsistent for the Bank to ask the Government to repay advances when it adhered to a rule which would not give control over its discounts (p. 59; see also p. 55).

⁷⁵ As is well known, Tooke's views later changed fundamentally.

⁷⁶ See Chart 1x in Appendix, below.

⁷⁷ Ev., 1832, q. 477.

along similar lines. When it was desired to reduce the circulation, he stated, it should be effected partly through a reduction of discounts, since any large sale of government securities by the Bank caused alarm. With the aim, therefore, of bringing the amount of discounts under control, he favored more frequent variations in the discount rate.⁷⁸

By the time of the Bank Charter inquiry, however, the Bank directors were beginning to doubt the efficacy of the rate and other measures for producing a desired change in the volume of discounts. It is true that their experience with rate changes was very limited, but it was not such as to encourage them.⁷⁹ They accepted the major premise that, except for emergencies at least, unquestioned control over the amount of securities was the desired end. This was true whether it was intended to maintain securities normally at a fixed amount in accordance with the rule laid down by Palmer,⁸⁰ or whether it was intended to vary securities in such a way that the circulation would reflect simply changes in the Bank's bullion, the plan of management considered ideal by Norman.⁸¹ They concluded, therefore, that the Bank should not attempt to regulate its securities by means of commercial discounts, but should use a procedure which would place its securities more completely within its control.

Let us examine their views in more detail. Palmer states that it is not desirable for the Bank to be primarily a bank of discounts except during emergencies. If the Bank were to compete for bills by putting its rate as low as the market rate, it would produce an objectionable competition with the private banks and tend to cause an excess of issues.⁸² With the idea of normally excluding discounts almost entirely, Bank rate should not be varied frequently and should be generally above the market rate. He is then asked if competition in

the purchase of government securities has not the same effect as competition for commercial bills. Palmer's reply to this question makes his meaning unmistakable. It is immaterial, he states, as to the description of securities acquired, but it is important whether the investment be fixed in amount. If it were necessary to supplement purchases of Exchequer bills it should take the form of "commercial investments" (presumably bills bought in the open market) and not "commercial accommodation" (discounts at the initiative of the borrower).⁸³ In other words, in order to have unquestioned control over total securities, Palmer desires to exclude all (or nearly all) paper from the Bank which it does not acquire on its own initiative, that is, under ordinary circumstances.⁸⁴

Such a rule, he holds, does not apply to a period of discredit. At such a time the Bank becomes the main support of commerce. The market rate will then advance to that previously fixed by the Bank as its public rate for commercial bills, which will occasion such bills to be sent to the Bank for discount.⁸⁵ That is to say, Palmer believes that in a period of great scarcity the Bank can not determine the amount of its securities, but must give the amount of discounts required, the extent of the Bank's discretion being to fix the rate.⁸⁶

Palmer does not follow his view consistently even in discussing normal periods. At one point he states that, before the Bank can "issue upon their notice," the private bankers are under the necessity of employing their funds at the best rate they can procure.⁸⁷ He thus implies that, if the Bank were to reduce its rate in order to compete for discounts, it would add little to

⁷⁸ Ev., 1832, qs. 160-178, 560-580.

⁷⁹ Palmer's reasoning here is similar to that of Keynes where the latter discusses his "ideal" method of control — though of course the aim of keeping securities at a fixed amount has no analogy in Keynes (cf. *Treatise on Money*, II, 231).

⁸⁰ Question 477.

⁸¹ Eight years later he defended the Bank for supporting credit in 1839. He pointed out that under the circumstances then prevailing it was not possible to prevent the growth of total securities either by selling government securities or by raising Bank rate. (Ev., 1840, qs. 1411-26.) Nor had an advance of the rate in 1836 had any effect, he believed, in reducing securities (qs. 1281-83).

⁸² Ev., 1832, q. 560. He makes a similar statement in 1848 (Ev., H.L. 1848, q. 917).

⁸³ *Historical Sketch of the Bank of England*, pp. 38-39.

⁸⁴ Palmer stated that the Bank might check the demand by raising the rate, but that raising the rate produced no effect in 1825 (Ev., 1832, qs. 160-161).

⁸⁵ Ev., 1832, q. 84 et seq.

⁸⁶ Ev., 1832, q. 2440; *Prevalent Errors with Respect to Currency and Banking* (1833), pp. 21-28, 57. However, Norman stated that circumstances might arise which would warrant a deviation from the plan.

⁸⁷ Ev., 1832, qs. 173-174, 477, 560.

its securities while depressing the market rate. This seems to be a shifting of ground. If the level of the market rate is to be the criterion, then it is just as important for the Bank not to depress the market through the purchase of Exchequer bills (in the effort to maintain securities at a fixed amount) as it is for it not to depress the market by reducing discount rate. Palmer's views were undoubtedly changing. In his discussions after the panic of 1847 he considered the state of the money market the proper criterion in the regulation of credit.

The point of departure for the Currency School was that the Bank should have unquestioned control over its securities in order that it might vary the circulation with the bullion. Norman, like Palmer, thought that it was quite undesirable for the Bank to regulate its issues through discounts, particularly so long as the usury laws prevented the Bank from defending itself by high rates. He apparently believed that it might prevent the growth of discounts by raising the rate high enough. As a temporary measure he thought that government securities might be reduced to compensate, or nearly compensate, an increase of discounts. But he did not approve of Palmer's plan for giving such discounts as were required at Bank rate during a period of pressure. By 1840 he had become convinced that the Bank's connection with the discount market made it impossible to vary the circulation with the bullion and so he concluded that a bank of issue ought not to engage in discounting at all.⁸⁸

When Loyd gave evidence in 1832 he apparently believed that the Bank could control the amount of its discounts; for he stated that the obvious and common sense plan was for the Bank to follow the market rate, though he realized that such was not the current practice.⁸⁹ However, when he became convinced that the Bank could not control the amount of its discounts, he concluded that, as a bank of issue, it should abandon discounting entirely. In an excellent statement of his position, he points out that the Governor in 1819 requested the repayment of government advances in order that the Bank might be free to regulate its

issues by means of discounts and so have them under its own control. But, upon being given that means of control, the directors became convinced that the contraction of issues made upon discounts in times of commercial pressure was not practicable. To Loyd, this was an acknowledgment that the Bank's connection with the discount market subjected it to demands which were not compatible with proper control—precisely in the same way that its connection with the Treasury finances had subjected it to improper demands during the war period.⁹⁰ Loyd's position was perfectly logical at least. The Bank's procedure was not compatible with his aim of monetary regulation.

It is thus clear that the theories regarding technical procedure can not be considered apart from the theories of what constituted a proper criterion of control. So long as it was believed that the level of the circulation was the proper measure of the extent of monetary ease or pressure,⁹¹ it was natural that some efficient means should be sought to control the circulation at a predetermined figure.

The actual procedure of control was in striking contrast with the plan of control explained by the directors in 1832. This became increasingly evident to contemporary observers as time went on, though I do not believe they realized how completely the Bank's role was confined to fixing the terms of credit. During the decade following the inquiry of 1832 the market was dependent upon the Bank in one form or another for very large amounts. To some this indicated that no procedure would work which presupposed fixing total securities at a predetermined level, that the Bank must extend such credit as the market demanded. To them the state of the money market became the criterion of control. To the Currency School the procedure which the Bank had developed empirically was evidence that it should be placed in the position where it would be compelled to disregard the demands of the money market.

⁸⁸ *Remarks on the Management of the Circulation* (1840), *Tracts*, pp. 84-85.

⁸⁹ Norman, for example, stated that it was "altogether a fallacious principle in the regulation of the currency to take the rate of interest as a test of demand" (Ev., 1832, q. 2444).

⁹⁰ Ev., 1832, qs. 2415-55; Ev., 1840, qs. 1745-76, 2062.

⁹¹ Ev., 1832, qs. 3313-26.

5. *Conclusion*

Discount policy was viewed originally as a mere auxiliary of currency policy. At the time of Resumption the directors believed that they could control the circulation by means of discounts, but by the time of the Bank Charter inquiry they began to doubt this. The rule of keeping Bank rate above the market was intended to keep discounts, at least in London, normally at a negligible amount. It was part of a general plan to insure that such changes as were made in the Bank's securities should be made at its own initiative. The Bank was to make "investments" but not ordinarily give "accommodation." Except for gradual changes, securities were to be maintained at a fixed amount. Thus changes in its liabilities would reflect merely bullion movements. There was a division of opinion, however, regarding the question of accommodation at the initiative of the market in periods of pressure. Palmer argued that the Bank must then give such accommodation as was demanded at Bank rate. Norman argued that such a procedure interfered with the regulation of the currency.

The announced plan of control could not of course be carried out. Once the fact is appreciated that the reserves of the London banks were subject to disturbances of large magnitude it is evident that securities could not be set at some predetermined level, whether this was a fixed amount or not. It was essential that the public should have access to the Bank at their own initiative.

As we have seen, there were several channels by which the public had access to Bank funds. Modern writers have given too exclusive attention to discounting by the London money market. It is assumed that because Bank rate was

ordinarily higher than the London bill rate that the market was not normally dependent upon the public's borrowing at the Bank upon their own initiative. But the reason why the London money market—i.e., the bill brokers and traders with first class bills—discounted at the Bank so infrequently was that other modes of adjusting the London banks' reserve position were cheaper. The moment that other channels for obtaining Bank funds proved inadequate the London money market was driven to the Bank. Thus it is a mistake to assume that there was an important break in procedure in 1844: that in the earlier period the public did not normally have access to the Bank at their own initiative, whereas in the later period they did.⁹² The fundamental fact was that in both periods the market could ordinarily adjust its position without its being necessary for the discount houses or traders with prime bills to go to the Bank for discounts.

To the Currency School the empirical procedure of the Bank showed merely the absence of any principle of control. This was because of their preconception that the proper criterion of monetary control was the amount of the currency and not the condition of the money market. It was not until after the Act of 1844 that they were willing to consider Bank policy as credit policy.

We shall postpone discussing the recent explanations and criticisms of the Bank's policies until we have considered discount procedure and contemporary theories during the period 1844-1858.

⁹² I believe both Hawtrey and King attach too much significance to the change in discount procedure in 1844. See *Art of Central Banking*, p. 138; *History of the London Discount Market*, pp. 78-80, 106-109. For further discussion of this point see Chapter XIII.

CHAPTER IX

THEORIES OF THE MECHANISM OF CONTROL OVER THE EXCHANGES

WE now turn from the discussion of the Bank's control over the internal credit structure to the theories concerning the mode by which the Bank maintained equilibrium with the international standard. It should be remembered that during the twenty-two years before the Resumption inquiry the Bank had no experience in administering credit under an international system, but only in moderating exchange fluctuations. Though the Bullionists argued that exchange parity could be maintained by following simple rules, the Bank officials and many in the City denied this. In the first place they emphasized the difficulties of making the necessary internal adjustments. And some of them, including the directors, doubted the ability to attract gold automatically. They pointed to the large commercial debts incurred for exports, the foreign flotations in London, and the accumulation of bullion by countries returning to a specie basis. To suppose that contraction would automatically and necessarily offset these factors seemed to them quite academic.¹ This helps to explain why so little attention was given in 1819 to the theory that the Bank could attract gold by controlling the net flow of foreign investment.

During the next two decades, however, those in control of the Bank came to have increasing faith in their ability to control the exchange through currency regulation, though it was not until the 'forties that controlling the flow of capital became a major objective of Bank policy. By 1858 influencing capital movements was considered a very effective method of influencing the exchanges, though the theory

that contraction influenced the balance of payments via commodity prices was not given up by most observers. Tooke and Hubbard were in the minority in denying the older doctrine.

The present chapter will deal only with the theories of the mechanism of control. We shall postpone until Part II the discussion of the degree of sensitiveness of the exchanges to credit contraction. It was not in fact until after 1844 that the theory that higher rates induced an inflow of capital was subjected to detailed criticism. We shall then consider (in the later chapter) the theories of the central reserve. This problem to a large extent concerns the degree of sensitiveness of gold movements to contraction; though it concerns also the question of the amount of latitude in internal control which should be given to the central bank. Finally, we shall consider the commonly accepted assumptions with regard to the nature of the gold standard and criticize them.²

During the Restriction period it was realized that foreign loans (or the withdrawal of foreign capital) tended to depress the exchange.³ But the counteractive measure which was considered available was the creation of a more favorable trade balance by reducing prices rather than the control of the capital movements themselves.⁴ It should be noted, however, that the

¹ See Chapter XIV.

² See, for example, Thornton, *Paper Credit*, p. 119 *et seq.*

³ The Bullionists minimized the importance of the foreign loans and subsidies as compared with the inflation of prices as the cause of exchange depreciation. What they really meant to emphasize was that, no matter what the existing price level might be, it was *ipso facto* too high if bullion were leaving the country or the exchange depreciated. They realized that various causes might initiate an unfavorable exchange, but they believed that a sufficient reduction of commodity prices would serve as a corrective. See, for example, Ricardo's evidence, H.L. 1819, qs. 108-110. Compare, however, Angell's view that Ricardo's theory of gold flows

⁴ See the evidence of Baring, Rothschild, Samuel Gurney, Harman, Pole, and Samuel Thornton before the Resumption Committee. See also a resolution of the Court of Directors (March 25, 1819), Report, H.C. 1819, pp. 262-264.

capital transfers during the war were of a political character and could not be expected to respond to action by the Bank. Alexander Baring stated that the subsidies to the allies were closely watched in London, for it was known that the payments would force the Bank to contract its issues and produce a scarcity of money in the market in order to counteract the depressing effect of the payments on the exchange.⁵ The foreign loans placed with investors since the war had required the same counteractive, he believed.⁶ When asked to explain how the contraction by the Bank supported the exchange, he said that it was by diminishing the nominal price of everything.⁷ The Governor of the Bank also stated that a contraction by the Bank improved the exchange by increasing exports of merchandise.⁸

Other witnesses at the investigation in 1819, however, stated that the amount of foreign lending might itself be influenced by a reduction of the currency. Rothschild states that there will be a great many loans⁹ which foreign governments will wish to place in England, "but as the money begins to be scarce, people will not venture to undertake them." He is then asked: "Does the facility of raising those loans arise out of this circumstance, that in consequence of the abundance of the circulating medium the interest of money is low, and the parties have therefore an inducement to invest their capitals in foreign funds?" Rothschild agrees, though he adds that, besides the inducement of higher interest, the investment in for-

eign securities is a growing passion at the present time.¹⁰

Tooke, in reply to a question as to the manner in which a reduction of the Bank circulation restores the exchanges, states that by keeping prices down it tends to diminish imports and to increase exports. In almost all cases, he believes, the total value of exports at reduced prices will be greater than that of a smaller quantity at higher prices. He adds that a reduction of notes tends also to increase interest rates and thus to "have the Effect of bringing back some Part of the British Capital which had been forced out by the previous artificial Reduction of the Rate of Interest at Home."¹¹ In his pamphlet some years later he states that the reduction in the rate of interest in 1792 "forced capital abroad in the way of extended credits to the foreign merchants, and of occasional investments, even at that time, in foreign government funds."¹² He makes also some qualifications regarding the effect of contraction upon the commodity trade balance. While eventually exports will be increased and imports will be diminished, he states, no immediate aid to the exchange can be expected from that quarter. A fall of commodity prices in England leads to a fall in the prices of similar stocks held abroad, so that little foreign speculative demand will result.¹³ As Hawtrey points out, the more usual statement implied a difference in the prices of foreign trade goods at home and abroad.¹⁴

When Gurney is asked at the Bank Charter inquiry how a contraction of the Bank issues corrects the exchanges, he replies that it produces caution in money dealers and through them in commodity dealers. This caution tends to reduce prices, and the lower prices tend to stimulate exports and diminish imports. He goes on to say that transactions in foreign

was "unilateral": that gold movements were caused only by prices that were out of equilibrium (*Theory of International Prices*, pp. 56-57).

⁵ Ev., H.C. 1819, pp. 193-194.

⁶ Ev., H.L. 1819, q. 137.

⁷ Ev., H.L. 1819, qs. 32-33.

⁸ Dorrien, Ev., H.C. 1819, p. 32. Before the Lords Committee he stated that a contraction of the circulation would "oblige Merchants to draw their Funds from Foreign Countries," but he apparently meant that merchandise would be exchanged for foreign gold (Ev., H.L. 1819, qs. 21-34).

⁹ Rothschild stated that his house alone had within nine months sold to individuals in Great Britain about £2,150,000 worth of French, Russian, and Prussian securities (Ev., H.C. 1819, p. 157). Haldimand estimated that the total of foreign government securities then held in the country amounted to something more than £10,500,000 (Ev., H.C. 1819, pp. 69-70). For a list of the foreign loans contracted in England from 1818 to 1832, see Report, 1832, app. 95.

¹⁰ Ev., H.C. 1819, p. 158.

¹¹ Ev., H.L. 1819, qs. 3-16. Before the Commons Committee he stated that the addition to the Bank circulation in 1817 reduced the rate of interest so violently that it caused capital to leave the country for more beneficial employment abroad (Ev., H.C. 1819, p. 125).

¹² *Considerations on the State of the Currency*, p. 82.

¹³ *Ibid.*, pp. 101-103. Also, he adds, a great contraction of credit in England causes a contraction abroad, so that foreigners are less willing to authorize drafts from London.

¹⁴ *Art of Central Banking*, pp. 144-145.

loans have had a more powerful effect in recent years than have mercantile transactions. He is asked whether the Bank can take effective measures to regulate the exchanges when such operations are undertaken. He replies that, by reducing the circulation, the Bank raises interest rates; "and if the value of money by such an operation rises here above the value in the other money towns of Europe, the effect must be considerable." But even then, he believes, there can be no entire security against a drain.¹⁵ Rothschild states that "the Exchanges cannot be guided by any body unless circumstances favour it." In time of peace the Bank has a great influence by making money very scarce, but in time of war, when foreign governments want gold, they will take it at any price.¹⁶

Palmer gives the older view. When asked how the Bank corrects the exchange, he replies: "The first operation is to increase the value of money; with the increased value of money there is less facility obtained by the commercial Public in the discount of their paper; that naturally tends to limit transactions and to the reduction of prices; the reduction of prices will so far alter our situation with foreign countries, that it will be no longer an object to import, but the advantage will rather be upon the export. . . ." ¹⁷ In his pamphlet he gives some attention to the causes of foreign investment. He attributes it to the great increase of capital and relatively low interest rates at home and to the mania for speculating in foreign stocks combined with the facilities offered by the stock market.¹⁸ He does not, however, connect the foreign investment with the credit policy of the Bank.

But Samson Ricardo in one of the numerous replies to Palmer's pamphlet calls it to his attention. The cheap credit at home which led to the speculation in foreign funds could have been prevented, he claims, by a curtailment of the Bank circulation. The abundant money of 1834 caused English funds to rise in price.

With the increased demand for securities, Dutch, Portuguese, and Spanish stock was imported. Palmer, he argues, would do better to blame the Bank for causing an undue expansion of the currency than to accuse those responsible for placing the foreign loans. The excessive importation of foreign securities proceeds from the same cause as the excessive importation of commodities. It is the effect, rather than the cause, of a derangement of the currency.¹⁹

In reply, Palmer states that it is a new doctrine that speculation in foreign securities is "necessarily connected with a redundant currency." There may be some connection, he admits, but generally there are other latent causes intimately connected with the political and financial condition of the debtor countries. He denies that money was cheap in Lombard Street at the time of the foreign security speculations, though he admits that it may have been at the stock exchange.²⁰ Later, in explaining why he does not believe the sale of securities by the Bank would have reacted favorably upon the exchange during the drain of 1839, he appears to be thinking of the possibilities of creating a favorable trade balance, although he does refer to "other property" along with commodities in one statement. But he does not mention specifically the possibilities of influencing international capital movements by tightening credit. His argument is that the Bank could not reduce prices and so affect commodity trade quickly enough to provide the required supply of foreign bills.²¹

Norman on the whole emphasizes the effect of contraction through a fall of prices and stimulation of exports. The extent of the fall required, he says, depends upon the number, variety, and value of the commodities traded; and upon monopolies, fiscal regulations, and other impediments to trade. However, he mentions the possibility of making foreign remittance partly in securities, and states that for-

¹⁵ Ev., 1832, qs. 3521-53. By "the value of money" he means the rate of interest.

¹⁶ Ev., 1832, qs. 4798-4862.

¹⁷ Ev., 1832, q. 678. See also qs. 781-786.

¹⁸ *Causes and Consequences of the Pressure upon the Money-Market*, pp. 24-28.

¹⁹ *Observations on the Recent Pamphlet of J. Horsley Palmer, Esq. on the Causes and Consequences of the Pressure on the Money Market* (1837), pp. 4-17.

²⁰ *Reply to the Reflections, etc. etc. of Mr. Samuel Jones Loyd, on the Pamphlet Entitled "Causes and Consequences of the Pressure Upon the Money-Market"* (1837), pp. 18-19.

²¹ Ev., 1840, qs. 1469-74.

eign loans feel the effect of contraction before goods.²²

In the light of these statements by Palmer and Norman, two of the leading directors, it seems reasonable to conclude that before 1840 the idea of regulating the rate of foreign lending was not prominently in the minds of the Bank authorities. I believe that it was during the 'forties that this objective became an important element of Bank policy.

Loyd in his evidence in 1840 emphasizes the effect of contraction through commodity prices. So long as the "par value" of the currency is preserved with respect to the currencies of other countries, he states, foreign investments are paid for by exports. He adds that the fall of prices might be anticipated by "speculative action upon the exchanges."²³ Apparently he has in mind the accumulation of sterling bills (or the sale of foreign bills) because of an expectation of a rise in the exchange and not because of the difference in interest rates. However, in his pamphlet in 1844 he states that a contraction is likely to affect the negotiation of foreign securities before it curtails speculation in commodities.²⁴ By this time the theory was becoming more generally understood.

The more frequent references to the effect of interest rates upon foreign lending after 1840 may have been owing partly to Tooke's lucid explanation at that time. An advance of the rate in London, he stated, would induce "foreign capitalists to abstain from calling for their funds from this country, to the same extent as they otherwise might do, and it would operate at the same time in diminishing the inducements to capitalists in this country to invest in foreign securities, or to hold foreign securities, and it might induce them to part with foreign securities, in order to make investments in British stocks or shares. It would likewise operate in restraining credits from the merchants in this country by advances on shipments outwards, and it would have the effect of causing a larger proportion of the

importations into this country to be carried on upon foreign capital."²⁵

Pennington,²⁶ Gilbert,²⁷ and Torrens²⁸ adopted the idea that the rate of interest affected the international flow of capital, but they combined it with the older version. The reduction of the currency also reduced prices and created a more favorable commodity trade balance. Gilbert, however, objected to the use of such a power as a "general principle of action" on the ground that it rendered the currency unfit as a standard of value.²⁹ Fullarton agreed in general with Tooke's version but he believed that Tooke was "over-sanguine" as to the ease with which the exchange could be corrected. The use of the rate in 1839 did not prevent a heavy drain.³⁰

Norman stated that the possibility of the Bank's holding foreign securities for protecting the exchange had frequently been discussed informally at the Bank. He thought that it was sound in principle but that there were practical difficulties connected with carrying it out. The securities, he said, would be like so much gold bearing interest.³¹ Loyd, though he thought

²² *Ev.*, 1840, q. 3769. See also q. 3758. In his *Inquiry into the Currency Principle* he states that the Bank by reducing or increasing its securities—not the currency, he insists—"renders disposable capital in the one case scarce, and in the other abundant; forcing it from foreign countries in the former, and to them in the latter case. The effect of the pumping in or forcing out of bullion by this means is infallible . . ." (pp. 103-104).

²³ Letter to Tooke, *History of Prices*, II, 371.

²⁴ "The Currency: Banking," *Westminster Review*, XXXV (1841), 95-96, 109. *Ev.*, 1841, qs. 995-1022.

²⁵ *Renewal of the Charter* (2nd ed., 1844), pp. 35-36. Torrens begins his explanation with a supposed reduction of bank reserves. His steps from that point are: a restriction of bank advances bringing with it a reduction of deposits; a rise of the rate of interest and fall of prices; an improved trade balance and the return of English capital.

²⁶ *Westminster Review*, XXXV, 95-97. At times he seems to be attacking the gold standard. See, for example, *Ev.*, 1841, qs. 1017, 1068-78, 1175, 1375. But at other times he implies that his plan to have the Bank satisfy the legitimate demands of commerce would in no way be inconsistent with maintaining exchange parity, provided the Bank held a large reserve (qs. 956, 1059-64, 1102-3, 1233-34).

²⁷ *Regulation of Currencies*, pp. 142-147. Fullarton argued that drains had a "natural" termination. By this he seemed to mean that bullion was often taken for some specific purpose, such as for a military chest or the replenishment of bank reserves to some desired level.

²⁸ *Ev.*, 1840, qs. 1941-47.

²⁹ Letter to Charles Wood (1841), pp. 18-21. *Ev.*, 1840, qs. 1783, 3438.

³⁰ *Ev.*, 1840, qs. 2753-56.

³¹ *Separation of the Departments of the Bank* (1844), in *Tracts*, p. 253.

the principle was sound, disapproved of the plan on the ground that the Bank should be acted upon rather than take the initiative. It would interfere with the action of the exchange dealers, he believed, for the Bank to be in the market.⁸² Gilbert argued in favor of the Bank's holding foreign securities and also of its borrowing abroad, as it had done in a few instances,⁸³ in case of necessity. His idea, however, unlike that of Norman, was to avoid internal contraction.⁸⁴ Fullarton suggested that the Bank might hold about £1,000,000 of securities of the four great Continental powers.⁸⁵ But J. A. Smith, a member of the Select Committee of 1841, argued that if it were known that the Bank of England was having to sell there would be no market.⁸⁶

Those who favored the plan reasoned as if England were coördinate with other countries in the international credit system. Once it is realized that the credit systems of other countries were responsive to credit conditions in London and that London was the place of last

resort to obtain gold, it is apparent that the possibilities of the Bank's protecting its position by selling foreign securities were quite limited. It could temporarily have absorbed part of the reserves of sterling bills and balances held abroad, but if foreign countries had been persistently attempting to add to their bullion reserves, the demand from the Bank would only have been delayed.⁸⁷

The growing popularity of the theory that the Bank could regulate the rate of foreign lending and even bring foreign capital to England undoubtedly strengthened the belief that the gold standard functioned automatically. It was felt that there was an additional instrument for protecting the exchange beyond what had been realized before. It is true that there were some sceptics. Rothschild's doubts as to the ability of the Bank at all times to control the exchange have been referred to. Harman, when asked whether high interest rates would not cause the return of English capital and the investment of foreign capital in England, stated that such would be the result if the investors had sufficient confidence but that they might consider that their money was safer abroad.⁸⁸ But on the whole little specific criticism of the theory was given.

⁸² Ev., 1840, q. 2848.

⁸³ For a discussion of the loans obtained by the Bank in 1836-37 and in 1839, see Palmer, Ev., 1840, qs. 1368-1449; Ev., H.L. 1848, q. 838. See also Tooke, *History of Prices*, III, 88-89.

⁸⁴ Ev., 1841, qs. 1181-1271, especially q. 1246.

⁸⁵ *Regulation of Currencies*, pp. 222-223.

⁸⁶ Ev., 1841, qs. 1211-16.

⁸⁷ For further discussion of London's position as manager of the international standard, see Chapter XIV.

⁸⁸ Ev., 1832, qs. 2291-96.

CHAPTER X

BANK REFORM IN ACCORDANCE WITH THE CURRENCY PRINCIPLE

THE Bullionists apparently believed that the return to gold would itself deprive the Bank of any power to interfere appreciably with the currency. Ricardo, for example, stated in 1816 that the quantity of the currency could never be too great nor too little while it preserved the same value as the standard.¹ He considered that such influence as the Bank possessed arose from its ability to increase (by its own accumulations) the world scarcity of gold. He showed little or no appreciation of the direct effect of central banking operations.² It was not supposed that the Bank would have to find a special formula in order to remain a neutral factor. But after the experience of the

boom and the panic of 1825 many contemporary observers began looking for a formula which would guarantee more fully the benefits of the automatic gold standard. They assumed as a matter of course that the price fluctuations were not owing to the gold standard but to the internal paper circulation.³ The formula which they sought, therefore, was one which would render the Bank (and the country banks) a neutral factor in the monetary situation.

Drummond's exposition exemplifies the transition from the older position to that taken by the Currency School. He first states as one of his "elementary propositions" that so long as a paper currency is convertible into a metallic one, the joint quantity of the two can never be any greater or less than it would have been if there were no paper at all. But at a later point he claims that recent events have shown that convertibility does not prevent ruinous fluctuations in currency and prices. He therefore advises limiting the paper to a definite quantity so as to avoid these price fluctuations.⁴ The formula for regulating the currency as stated by Page was: "That only is a sound and well-regulated state of things, when no greater numerical amount of paper is in circulation than would have circulated of the precious metals if no paper had existed."⁵ This formula, which

¹ *Proposals for an Economical and Secure Currency*, in *Essays* (Gonner ed.), p. 166. As late as 1833 the reviewer of the Bank Charter Report in the *Westminster Review* adhered to the older idea that convertibility prevented the Bank from mismanaging the currency. "Another point on which the Bank seems disposed to claim a disputable credit, is on its nostrum for regulating its issues by the foreign exchanges. Think only what superhuman genius! what complex ingenuity! The Bank regulates its issues by the foreign exchanges! who else could do anything so wonderful!" . . . "As long as it intends to pay in gold upon demand, it need not make the smallest conscience of not lending or discounting to the utmost that it can persuade itself to do. The public is perfectly willing to leave the matter in its hands; and will give it no credit for not doing harm where it cannot. If the Bank pretends to put restraint on itself for public motives, it will find few that it will convince. In the nautical proverb, 'they may tell it to the marines, but the sailors will never believe it.'" (*Westminster Review*, vol. XVIII, 1833, pp. 79, 80.)

² He writes to Malthus (September 10, 1815) that the Bank is "an unnecessary establishment" (*Letters of David Ricardo to Thomas Robert Malthus, 1810-1823*, edited by J. Bonar, 1887, p. 89). In his "Notes on 'Plan for the Establishment of a National Bank'" he states: "The Bank of England, as well as every other Bank in this country is only of use as it substitutes a cheap currency for a dear one, a paper currency for a metallic one" (*Minor Papers on the Currency Question, 1809-23*, edited by J. H. Hollander, 1932, p. 164).

³ See, for example, Mushet's statement that if the circulation were wholly metallic the price variations from year to year could not be extensive (*Effect of the Issues of the Bank of England* (1826), pp. 78-79).

⁴ *Elementary Propositions on the Currency* (4th ed., 1826), pp. 30, 40-66. Drummond recommended adopting Ricardo's plan for a national bank.

⁵ Richard Page (Daniel Hardcastle, pseudonym), *Letters to the Editor of "The Times" Journal, on the Affairs and Conduct of the Bank of England* (1826), p. 258. In his evidence in 1840, however, he recommended that the Bank follow the "rule of 1832." See pp. 862, 915.

came to be known as the Currency Principle,⁶ was stated also by Joplin⁷ and by various other writers. In the view of these writers, the only way of insuring that the currency would behave in this manner was to require that the banks vary their note circulation exactly with their bullion reserve. As they were later to learn, a difficulty arose as to precisely what was to be considered the *circulation*.

Another formula with the same general aim of insuring that the Bank remain a neutral factor was the "rule of 1832."⁸ In its simplest form the rule merely provided that the Bank should maintain its securities at a fixed amount, permitting bullion and liabilities to vary together. But when explained in detail it was more complicated.⁹ The rule was considered unsound by the Currency School on the ground that deposits together with notes were to be permitted to vary with the bullion. Since they did not regard deposits as part of the monetary base, but as part of the credit superstructure, they considered that, by keeping securities at a constant amount, bullion changes would not

⁶ The term "Principle of Currency" was used by Ward at the Bank Charter inquiry in 1832. (Cf. Tooke, *History of Prices*, iv, 166.) Though Ward stated that it should be the object "to bring the paper as nearly as possible to what the currency would be if no Bank existed, and the currency were all gold," his further discussion showed that he desired the directors to be left with a certain amount of discretionary control (Ev., 1832, qs. 2080-98).

The idea that the Bank should vary the circulation with (or in proportion to) its bullion was not new. Thornton characterized such an idea as "merely theoretic" though "natural." In criticism of the idea he argued that a great reduction of notes would not only destroy internal credit but prevent an inflow of gold from abroad (*Paper Credit*, pp. 75-114, esp. p. 78).

⁷ Joplin, *Outlines of a System of Political Economy* (1823), pp. 258-277, esp. p. 276; *Views on the Currency* (1828), pp. 167-168. See also his *Analysis and History of the Currency Question* (1832), pp. 151-155.

⁸ The rule was announced by Palmer at the inquiry in 1832, but James Pennington suggested a similar plan in a memorandum to Huskisson some years earlier. He admitted that it would be difficult to apply his principle. The chief obstacle which he noted was the fluctuations in government deposits. (*Letter to Kirkman Finlay*, 1840, pp. 85-88.)

⁹ Palmer, Ev., 1832, qs. 72-85, 198, 477. The "principle," Palmer stated, applied to the country circulation as well as to that of the Bank. Also, over the long run, securities were to be varied gradually so as to maintain an average reserve of one third of the notes and deposits. Seasonal changes were to be disregarded. Furthermore the rule was to be departed from in case of pressure upon the money market.

be permitted to have their proper effect upon the credit superstructure and prices. Also, it was obvious by 1840 that the Bank had not abided by the rule, and Palmer, its chief sponsor, tacitly admitted that it could not be applied.¹⁰ It therefore fell into disrepute, leaving the controversy to the advocates of the Currency Principle and their various opponents.

1. *Some of the Proposals for Bank Reform in Conformity with the Currency Principle*

The idea of separating the departments of the Bank goes back to Ricardo's plan for a national bank. Ricardo stated that the Bank of England united two operations that were quite distinct: the issue of currency as a substitute for a metallic one and the making of loans to merchants and others. His national bank was to have nothing to do with the latter function but confine itself to the issue of notes for bullion and government securities. It was to be similar to what the Issue Department of the Bank later became, with the exception that its managers were to be left with discretion to buy securities when the price of gold fell (and sell securities when the price of gold rose). But it must be noted that this feature was for the purpose of intensifying the effect of the exchanges upon the currency, and not of moderating the effect of gold movements.¹¹

Norman approved of Ricardo's plan in theory; but in his earlier pamphlet he merely proposed that, as a step toward reform, the country banks should be required to give security for their notes and that no new bank of issue should

¹⁰ Palmer, Ev., 1840, *passim*.

¹¹ "Notes on 'Plan for the Establishment of a National Bank'" (1823), in *Minor Papers on the Currency Question*, edited by J. H. Hollander (1932), pp. 163-181, esp. p. 166; *Plan for the Establishment of a National Bank* (1824), McCulloch edition of *Works*. In a letter to Malthus (September 10, 1815) Ricardo stated that commissioners independent of ministerial control might well issue the currency in place of the Bank and the country banks (*Letters of David Ricardo to Thomas Robert Malthus*, pp. 89-90). While the plan of reform goes back to Ricardo's plan, it must be seen that Ricardo's objective was not to insure that a mixed currency would behave like a metallic currency; for he thought that it would do so in any case. The main reasons for his plan seem to have been to take away from the Bank and the country banks the profit from issuing currency, to avoid unnecessary accumulations of bullion, and to keep the price of bullion as steady as possible.

be permitted.¹² In his evidence in 1840 he suggested that existing country issuers should be licensed for a limited period and that in the meantime inducements should be offered them to relinquish their issues. He further recommended that the Bank be separated into two departments with the idea of having the circulation vary with the bullion.¹³

Torrens, though having the same general aim as Norman, approached the problem at first from a different angle. He thought that if the notes of the Bank were confined to the metropolis, and that if they were issued only against bullion, the country circulation would fluctuate approximately as if it were metallic. He reasoned that, so long as the Bank issues and the country issues were not competitive, it would be impossible for the London banks to replenish their reserves with Bank notes released from the country. He proposed, therefore, a London bank with no country branches which would issue only against bullion and which would carry on no deposit business. The country circulation was to be left undisturbed.¹⁴ Later, Torrens advocated limiting the country circulation also. He took the position that, though the Bank had ultimate control over the country circulation, it was a faulty control. The provincial banks might cause a drain before the Bank could compel them to restrict.¹⁵

Loyd, without proposing any precise plan, appeared to favor the separation of the departments of the Bank about the time Torrens's first proposal was published. In his *Reflections* in 1837 he states that the Bank has not sufficiently attended to the distinct nature of its different functions, the issuance of notes and the pursuit of an ordinary banking business.

¹² *Prevalent Errors with Respect to Currency and Banking*, pp. 66-68. He also suggested in substance the plan later embodied in the Act of 1844; but he believed that the vested interest of the country bankers in their circulation privilege made it impracticable at that time (pp. 26-28, 61-62).

¹³ *Ev.*, 1840, qs. 1706, 2061 *et seq.*, 2125, 2161-69. He did not want the Bank circulation limited until the danger of discredit of the country circulation was removed (qs. 2040-42). See also his *Letter to Charles Wood* for a discussion of what he regarded as the correct principle for the issue of Bank of England notes.

¹⁴ *Letter to Lord Melbourne* (1837), pp. 49-60.

¹⁵ *Renewal of the Charter* (2d ed., 1844), pp. 39-43.

In this pamphlet his chief criticism is directed against the Bank for not varying its circulation with its bullion. But he admits that the country banks may expand for a time in the face of a contraction by the Bank, "and so far we may admit that their power is a vicious one."¹⁶ In his *Second Letter to J. B. Smith* (1840) three years later he attaches most of the blame for currency expansion to the country banks, particularly during the years 1835 and 1838; though he states that the Bank can not be exonerated.¹⁷ In his evidence before the Select Committee in 1840, though he proposes no definite plan, it is clear that he desires to limit both the Bank and the country circulation.¹⁸ Thus by about 1840 there appears to have been general agreement among the Currency School that all bank notes not covered by bullion should be limited to a fixed amount.¹⁹

There was a certain confusion of thought as to what the separation of the departments of the Bank would accomplish. In their criticisms of the Bank and the country banks the Currency School reasoned that the actual circulation outside the Bank (and the country banks) should vary with the bullion.²⁰ But when pressed on the point they admitted that the reserve of the Banking Department would be included in the circulation as they proposed to define it, i.e., the circulation of the Issue Department.²¹ Their plan in fact presupposed not only a separation of departments and limitation of the issue, but that the Banking Department should be conducted as any other bank.

¹⁶ *Tracts*, pp. 6-7, 15-16.

¹⁷ *Tracts*, pp. 215-217.

¹⁸ *Ev.*, 1840, q. 2872 *et seq.*

¹⁹ For such plans, see the following: Samson Ricardo, *A National Bank* (1838); Drummond, *Causes Which Lead to a Bank Restriction Bill* (1839), pp. 17-20; Joplin, *Currency Reform* (1844), pp. 63-73. Joplin proposed that the government should issue all the currency and advance to the banks a fixed amount uncovered by bullion, but suggested delay until the foreign trade was brought into a "natural" state.

²⁰ See Loyd, *Remarks on the Management of the Circulation*, in *Tracts*, pp. 70-73; *Second Letter to J. B. Smith*, in *Tracts*, pp. 198-199; Torrens, *Letter to Lord Melbourne*, pp. 21-26. Pennington, on the other hand, pointed out that if there were no bank notes the money in circulation would not fluctuate with total bullion (*Letter to Kirkman Finlay*, p. 90).

²¹ Norman, *Ev.*, 1840, q. 2548. Loyd, q. 3481.

2. *Bank Reform as a Cure for Business Fluctuations*

Undoubtedly a great deal of the driving force for bank reform was the dissatisfaction arising from business fluctuations. These were very commonly attributed to a faulty system of country note issue and to the mismanagement of the circulation by the Bank. By the sponsors of the Bank Act it was taken for granted that the elasticity in the system was used generally to amplify business fluctuations rather than to moderate them. They believed that contraction was due to previous overexpansion and that, if the note issue were strictly limited, overexpansion would be much less likely to develop. They failed to consider adequately that inflation might go quite far with little increase of currency either in the hands of the public or in the reserves of the banks and that disturbances to the value of gold might originate abroad. They made no attempt to prove their assumption that in the net the Bank would act as a disturbing rather than as a moderating influence. Indeed it is difficult to see what facts they could have appealed to since they formally held that stability of prices or stability however interpreted was not a proper objective of the Bank. Any attempt to prevent prices from varying as they would have varied under a metallic currency would be a harmful interference with natural laws.²³ Nevertheless they expected the Act to moderate business fluctuations, and it seems unlikely that it would have had any appeal for the public without that expectation.

There is a certain inconsistency in their belief that the Bank could initiate an important disturbance in the monetary system and their general theory that a void in the currency created by causes outside the Bank would be quickly filled by an inflow of gold. Why should disturbances initiated by the Bank be less easily neutralized? Part of the explanation for their attitude may be that they estimated disturbances originating with the Bank to be of greater magnitude than disturbances originating from any other source. But they never stood flatly upon such ground.

²³ See Norman, *Ev.*, 1840, q. 2180. Loyd, *qs.* 2935, 2959-62.

Torrens, for example, in the preface to his *Renewal of the Charter* states that the enactment of the Bill will not only prevent "greater fluctuations than those which would take place were the currency exclusively metallic"; but that they "will effectually prevent the recurrence of those commercial revulsions — those cycles of excitement and depression, which, as Mr. Loyd has so felicitously explained, result from the alternate expansion and contraction of an ill-regulated circulation." He then explains in the text why commercial convulsions should be eliminated by the Act. An increase of bank reserves would cause bank deposits to expand and the prices of commodities to rise slightly. But the rise of prices would give an early check to the inflow of bullion. A slight contraction of reserves would have an "instantaneous tendency" in the opposite direction. "Sudden and deep vibrations upon either side would be prevented."²⁴ It is evident that the Currency School considered that the gold standard was itself relatively stable.

Clay argued that fluctuations of interest rates and prices would be less because the necessary contraction would begin at the right time. It would be "precisely to the extent required, because it would not have been preceded by a previous factitious expansion." The various processes of watching the exchanges, as recommended by the most eminent practitioners, had been tried for a quarter of a century with indifferent results. Was it not time to see if the currency would regulate itself through the operation of natural causes?²⁴ Peel, in defending the Bill before the House, said that he looked forward "to the mitigation or termination of evils, such as those which have at various times afflicted the country in consequence of rapid fluctuation in the amount and value of the medium of exchange."²⁵ Loyd and Wood claimed that, while the Act would not put an end to all miscalculation and speculation, it would prevent those due to the mismanage-

²⁴ Second ed., 1844, p. 29. See also *Letter to Lord Melbourne*, pp. 36-54.

²⁵ *Remarks on the Expediency of Restricting the Issue of Promissory Notes to a Single Issuing Body* (1844), pp. 71-72.

²⁶ *Speeches on the Renewal of the Bank Charter* (1844), p. 53.

ment of the currency.²⁶ Thus there seems little doubt that the Currency School expected a very great moderation of business fluctuations as the result of the Act.

The opponents of the Act, on the other hand, held that it would increase instability. Their argument was that overtrading could develop with little increase of bank notes, being financed with other forms of credit. The drain of gold would not come early enough to check the expansion before it had gone quite far, and in the meantime the Bank, looking only to its own position and not taking action in advance of a drain, would accelerate the expansion. Then when the drain set in the Bank would be less able to meet it as the result of the Act. It would take *time* to turn the exchanges and before sufficient gold could be drawn in a panic might develop.

Fullarton, for example, says: "It is the avowed result of the scheme, that the banking department, from the moment of separation, is to be relieved from all charge of the public interests, and to be at perfect liberty to employ the funds intrusted to it to its own best advantage, just as any private banker would do. This is the universal understanding in the City," as well as in the Bank Parlour. Thus the Bank, instead of using restraint when money is very cheap, will join in the competition for securities and aggravate the tendency towards speculation. When a drain results, it will be in no position to give aid, as its working reserve will be small and the reserve of the Issue Department will not be available. When credit is tottering, he claims, the Bank, instead of mitigating the crisis, will be the keenest and most powerful competitor for such currency as can be obtained by the sale of securities.²⁷

3. Conclusion and Criticism

The Bullionists at the time of Resumption believed that the gold standard would alone

²⁶ Loyd, *Thoughts on the Separation of the Departments of the Bank*, in *Tracts*, pp. 240-241. It may be noted incidentally that no mention is made of the possibility that the standard itself might cause the fluctuations. See also Ev., 1840, qs. 2935, 3089.

²⁷ *Regulation of Currencies*, pp. 187-200 and *passim*. Tooke was rather moderate in his criticisms of the proposed plan in vol. III of his *History of Prices* (see pp. 180-184). His more severe strictures on the Act were in vols. IV and V.

abolish the discretionary management of the currency and give relatively stable prices.²⁸ Once they saw that it did not, they — and those who later followed their view — sought some means to insure what they regarded as a more perfect adjustment to the standard. They assumed that the standard was stable but that the residuum of discretionary control of the currency was responsible for the variations. The problem, therefore, as they viewed it was how to abolish that discretionary control. The particular formula adopted by the Currency School presupposed (a) that the proper measure of restrictive action was recorded changes in the amount of the currency and (b) that gold movements were highly sensitive to internal pressure created by such changes. Thus by providing that the currency should be sensitive to gold movements *and to them alone*, they would restore the natural functioning of the monetary standard. Prices would then be sensitive to gold movements just as gold movements were already sensitive to prices.

The principal opponents of the Currency School sympathized with their general aims. Tooke, Palmer, and Fullarton, for instance, were no less staunch supporters of the gold standard than Norman, Loyd, and Torrens. Nor did the former want to interfere with the operation of what they regarded as the natural laws governing money. Nevertheless they did advocate a discretionary control in the public interest.

As we have seen, the theories of the opponents of the Currency Doctrine varied quite widely — a point that is sometimes overlooked — but generally they denied that variations in Bank notes and coin were the only appropriate criterion of internal pressure. They therefore objected to having this factor alone sensitized to gold movements. And in the second place they denied that gold movements were responsive as quickly to internal pressure as the Currency School claimed.

The opponents of the Bank Act, however, were themselves very optimistic regarding the

²⁸ Ricardo was asked by the Committee in 1819 whether it would not be possible to have Bank notes steady in value without their being attached to a metallic standard. He replied that in practice bullion appeared "to approach the nearest to an invariable standard" (Ev., H.C. 1819, p. 138).

responsiveness of gold movements to internal pressure. Their own plan of control was to raise the rate semiautomatically in response to a foreign drain, though Tooke and Palmer were less willing to see very low rates as gold accumulated. On the whole, I believe the differences between the sponsors and the opponents of the Act have been rather overstated.

Some modern writers have made it appear that the controversy over the Act of 1844 was between (a) those who believed that the banking system should be governed in its extension of advances by the wants of trade and (b) those who saw the necessity of limiting the monetary supply according to the requirements of the international standard. This is a mistaken view. The opposition in the City never questioned the theory that the Bank would have to take restrictive action—through advancing the rate and selling securities—to protect the exchanges.²⁹ What they objected

to was limiting the note issue as such and thus placing the Bank in the position where it might be unable to support commercial credit in emergencies. Thus the controversy concerned the question of the proper criterion of corrective action and whether a discretionary monetary control could be abolished, and not whether corrective action should be taken.

In comparing the older theories with those which are more recent we may note that, so far as the procedure of internal control is concerned, the Currency School proposals have a great deal in common with the recent proposal to require 100 per cent reserve for demand deposits. It is true that *money* is differently defined. But on the important point that the proper criterion of control is registered changes in the *supply of money*, and not changes in the *condition of the money market*, the two are similar. When Currie, for instance, asserts that it is desirable to divorce "the supply of money from the loaning of money,"³⁰ he means essentially the same thing as did Loyd and Norman when they stated that ordinary banking transactions should not change the supply of money.

²⁹ Gilbert and Fullarton, it is true, stated at times that the Bank should regulate its discounts according to the demands of trade, and thus implied that qualitative control was in itself a sufficient restriction. But in other places they stated that additional measures would have to be used in case the Bank were confronted with speculative tendencies. Even the version thus qualified, however, was not generally held in the City. What was held was that the Bank should never refuse to discount at some rate or other.

As has been stated in Chapter II, the country bankers in their opposition to the Act of 1844 claimed only that they should satisfy all the demands for bank notes as such and not all the demands for advances. The latter, they pointed out, depended upon the state of their reserve.

³⁰ *The Supply and Control of Money in the United States* (2nd ed., 1935), p. 152. Currie's objective is of course entirely different from the Currency School objective of requiring the currency to vary in the same way as a purely metallic currency.

See also Graham's statement: "It should be clear that lending and borrowing ought not to change the supply of currency . . ." ("Partial Reserve Money and the 100 Per Cent Proposal," *American Economic Review*, vol. XXVI, 1936, p. 431).

PART II
THEORIES FROM 1844 TO 1858

CHAPTER XI

THE "MODUS OPERANDI" OF THE BANK'S INFLUENCE ON THE MONEY MARKET

IT HAS been pointed out that, when discussions of discount policy first began, Bank rate and security operations were regarded merely as instruments for controlling the circulation. Beginning, however, about 1832 there was a growing tendency to regard the state of the money market as a better criterion of the degree of pressure exerted by the Bank than the amount of the circulation. With Tooke and certain others this idea was extended to mean that the amount of the circulation had no bearing upon money rates. But such was not the most prevalent view even among opponents of the Currency Principle. Gurney and Palmer, for instance, as well as many others, considered that the currency was the medium through which the Bank acted to make effective a given level of rates in the market even though it was not the best criterion of pressure. And the Currency School of course, until 1844, continued to hold the view that the currency was not only the medium through which the Bank acted but that it was the only proper gauge of whether appropriate measures were being taken.

After the Act of 1844 it became much less common to consider that the Bank made its policies effective by changing the amount of the currency. And at the same time the monetary implications of the reserve deposits at the Bank were generally ignored. The nature of the Bank's influence in the money market was not clearly explained and apparently was not really understood. A common statement was that the Bank's peculiar position arose from the fact that it was a very important lender of capital.

No single factor accounts for this change in the interpretation of the Bank's *modus operandi*. The tendency of the London banks to hold a larger portion of their reserves in the

form of balances at the Bank tended to draw attention away from notes as the instrument of control. But the importance of this factor should not be exaggerated. Until the panic of 1857 London bankers' balances rarely exceeded £4,000,000. Even as late as 1873 they fluctuated from about £7,000,000 to £11,000,000. There is good reason for believing that in both periods the note holdings of London banks exceeded their average reserve balances at the Bank.¹ Nevertheless, observers were impressed with the fact that an increase of discounts was very often not accompanied by any increase of the circulation. And while they pointed out that the accompanying change might be an increase of Bank deposits, they failed to note the monetary aspect of such a change.

The truth was that the Bank was able to enforce its policy without that fact's being registered in any obvious way in the amount of bankers' cash in *either* form.² The market adjusted reserves to requirements. What attracted most attention was the level of the rate and the volume of discounts and advances. Contemporary observers, believing that it was the ease of obtaining accommodation that really mattered to the business community, and not seeing clearly the mechanism by which the Bank enforced its policies, tended to emphasize the *loan* aspect of the Bank's expansion rather than the monetary aspect.

Another reason for the change in the interpretation of the Bank's *modus operandi* was the insistence by the Currency School that the

¹ In 1873 notes of £20 denomination and over were about £11,000,000 (P.P. 1877, (226), XLIX). See below for discussion of the proportion of Bank notes held by London banks.

² The significance of reserve cash was partly obscured by the fact that reserve requirements were likely to be large when the rate was high, and on the other hand when there were excess reserves the rate was low.

Act of 1844 had abolished the Bank's power over the currency. The true circulation, they claimed, was the notes of the Issue Department. By this statement they did not mean that the Bank had no control whatever over the amount of currency outside its walls. What they *really* meant was that the Bank's influence was very much restricted and was of the same order of importance as the influence of any other bank. In considering specific situations they still frequently reasoned that the Bank influenced the money market by releasing or drawing in notes. Even so, having insisted that the currency was regulated automatically, they were no longer in a position to refer to the credit policy of the Bank as currency policy. Their criticisms of the Bank were now for lending under the market or for failing to regulate the rate with reference to the reserve. Thus verbally they seemed to agree to Tooke's statement that the Bank exerted its influence in the money market by virtue of its position as a great lender of capital.

1. *Vestiges of the Theory that the Bank Makes Effective a Given Policy through the Note Issue*

Statements implying that the Bank used the note issue to accomplish a given result appear much less frequently in the inquiries of 1848 than in the inquiry of 1840. But the older manner of speaking was not yet given up. Thus Glyn implies that the sale of securities creates pressure because it draws in notes.³ And he states that the Bank could safely have "extended its Circulation" during the panic when the exchanges were favorable.⁴

Gurney states that the bill brokers resort to the Bank for discounts when there is a shortage of notes in Lombard Street. When he is reminded that the brokers receive a credit at the Bank against which they draw checks to repay the banks, he states that practically speaking the payment is in notes, since the banks convert the credit into notes.⁵

Palmer is asked whether the object of raising Bank rate is not to reduce the amount of accommodation and so lessen the currency. He replies: "Certainly, that is the Object of raising

the Interest." He is asked further: "Therefore the Remedy in that Case, whatever may be the Modus operandi, is lessening the Currency?" "Yes," he replies.⁶ Later he states that an increase of Bank rate "virtually reduces the Circulation."⁷ However, his further explanation shows that he does not believe that the actual amount of currency will necessarily register any change. The Bank, he tells the Lords Committee, has no legitimate power of limiting the amount of notes in circulation. The public will take whatever quantity they require by putting in bullion or reducing their deposits.⁸ He takes a similar view before the Commons Committee and adds that attempting to reduce the circulation is what brings all the mischief.⁹ It seems doubtful, however, whether Palmer means to imply that the Bank brings restrictive action through deposits. He seems to mean that the banks and the public demand a given amount of currency and will pay whatever rate is necessary to obtain this amount.

2. *The Changing Interpretation Given by the Currency School*

In discussing particular cases the Currency School continued to reason that the mode by which the Bank influenced the money market was by changing the currency in the hands of the public. Thus Loyd stated that the Bank might temporarily raise the rate by abstracting capital from the public and hoarding it in its cellar.¹⁰ Torrens reasoned that the effect of the sale of Exchequer bills would be to draw in notes from the public.¹¹ Such was also Morris's reasoning. The Bank, he stated, "may raise the

³ Ev., H.L. 1848, qs. 735-737. The questions refer specifically to the method of correcting the exchange. But Palmer considers an increase of the market rate a necessary step in the process.

⁴ Ev., H.L. 1848, q. 795.

⁵ Ev., H.L. 1848, q. 943. However, he realizes that in times of discredit private deposits at the Bank increase (Ev., H.C. 1848, q. 2119).

⁶ Ev., H.C. 1848, qs. 1971, 2215.

⁷ Ev., H.L. 1848, q. 1638. See also q. 1637. The use of the term *capital* suggests that Loyd is avoiding stating that the Bank reduces the circulation. But the term *cellar* implies that he refers to Bank notes.

⁸ *Principles and Practical Operation of Sir Robert Peel's Bill of 1844 Explained* (1848), pp. 28-29. Also he stated that "advances necessarily fell upon the banking reserve" (p. 32).

⁹ Ev., H.L. 1848, q. 1806.

¹⁰ Ev., H.L. 1848, q. 1725.

¹¹ Ev., H.L. 1848, qs. 1132-40, 1344.

Rate of Interest by withdrawing its Notes." ¹²

On the other hand, the Currency School formally maintained that the Act of 1844 had abolished discretionary control of the currency. And though they conceded that the Bank had a somewhat different position in the money market from other banks, they described its position in such a way as not to imply that it influenced the note issue. Loyd, for instance, insisted that the Act had caused the abandonment of the discretionary management of the circulation. ¹³ And though the Bank, he stated, stood "in a peculiar position," this was because of the "magnitude of its resources and transactions." ¹⁴ Torrens claimed that, following the Act, the currency varied automatically as a wholly metallic currency would vary. ¹⁵ However, the Bank differed from other banks because of the greater "capital" at its command. Consequently irregularity in its "advances" could cause distress. ¹⁶ Cotton stated that the Bank as a "large Capitalist in the Market" might influence the rate temporarily. ¹⁷

Though Loyd and Torrens held that the circulation varied automatically, this consideration did not prevent them from criticizing the Bank's policies. But they no longer, as before 1844, stated that the Bank had failed to contract the circulation soon enough. According to Loyd, the mismanagement of the Banking Department now lay in increasing securities excessively and in lending below the market. ¹⁸ Torrens objected to the fitful manner in which the Bank unduly advanced and withdrew "loanable capital." ¹⁹ Tooke was essentially correct in stating that the Currency School now used the word *contraction* to indicate an advance of the rate or the sale of securities. ²⁰

¹² Ev., H.L. 1848, q. 495. At another point (q. 553) he stated that restriction of the circulation caused money to be more valuable (interest greater). In explaining how the Bank was to maintain its reserve, Morris gave as one of the ways "selling Securities and attaining Notes out of the Market" (q. 548).

¹³ Ev., H.L. 1848, q. 1469; H.C. 1848, qs. 5163-65, 5269-77.

¹⁴ Ev., H.C. 1848, q. 5192.

¹⁵ *Peel's Bill Explained*, pp. 12, 151.

¹⁶ *Ibid.*, pp. 26-27.

¹⁷ Ev., H.L. 1848, q. 3219.

¹⁸ Ev., H.L. 1848, qs. 1353-56; H.C. 1848, qs. 5127-33; Ev., 1857, q. 4065.

¹⁹ *Peel's Bill Explained*, p. 39.

²⁰ *History of Prices*, v, 590-591.

The question arises whether the Currency School in referring to the Bank's making advances of "loanable capital" had in mind the creation of deposits. I do not believe they considered that the Bank created deposits or appreciated their significance from the standpoint of internal control. Torrens, for example, pointed out that the Bank held a considerable portion of the reserves of other banks. But the importance of this fact to him was that it made it all the more necessary for the Bank to maintain a large reserve in relation to liabilities. Instead of considering that the Bank created reserve deposits, he stated that it could lend only the capital "placed at their disposal." ²¹ Morris stated that reserve on deposit at the Bank was the "same thing" to the London bankers as reserve in the form of notes. Whether he reasoned that they would have the same effect as notes upon the bankers' activities is not clear. But he certainly did not see that the Bank and not the public created the deposits. He said, "We are only able to give Accommodation in proportion to the Deposits which we hold." ²²

At times the Currency School took the position that the credit restriction of 1847 was essentially nonmonetary. Loyd stated that the high rates and distress of 1847 were owing to a shortage of capital applicable to manufacturing and trading purposes and not to a shortage of currency. ²³ Torrens stated that the railways were absorbing circulating capital and outbidding the discount market. It was the diminution in the amount of floating capital and not the shortage of paper money that caused the collapse. ²⁴ Norman considered that the absorption

²¹ *Peel's Bill Explained*, pp. 26, 33. In *The Petition of the Merchants* (1847), written jointly by Loyd and Torrens, it was stated that the bankers' balances at the Bank were the reserve "placed in its coffers for safe custody" (Loyd, *Tracts*, p. 295).

²² Ev., H.C. 1848, qs. 3635-42; H.L. 1848, q. 620.

²³ Ev., H.L. 1848, qs. 1350, 1584-87, 1603-4. For his argument that only small fluctuations in the rate of interest are connected with changes in the quantity of money and that the great and important ones "have reference to the relation between the supply and demand of capital," see Ev., 1857, qs. 3721-3844, esp. 3752.

²⁴ *Peel's Bill Explained*, pp. 33-41. At one point he says: "When the floating wealth—the vendible commodities—of a credit-dealing country suffer diminution, a commercial pressure, involving the less stable portion of the trading

of capital in railways was an important cause of the pressure in 1847.²⁶ It was the opponents of the Bank Act who emphasized the monetary causes of the panic.

Thus the Currency School, though still considering a change in the currency as the *modus operandi* of the Bank rate when discussing specific operations, took the formal position that Bank policy no longer was monetary policy. This formal position undoubtedly strengthened the belief already widely held that the Bank's influence arose from its being a large lender of capital, that it was fundamentally like other banks though having certain public obligations.

3. *Increasing Prominence of the View that the Bank's Influence Rests upon its Position as a Great Lender of Capital*

Tooke is asked by the Lords Secret Committee in 1848: "What do you consider to be the Power of the Bank over the Rate of Interest of Money?" He replies: "I consider that dealing on so very large a Scale with its own Capital, and the Deposits from the Government Revenue, and the Exchequer Balances, it may cause a very considerable temporary Variation, distinct from what would be the ordinary Market Rate."²⁶ To the Commons Committee he states that, until the Letter was issued, the Bank was of no more benefit than "any private bank, except taking into consideration its magnitude."²⁷ Though these statements superficially resemble those of the Currency School, Tooke does not mean exactly the same thing by them. In the first place, he desires to emphasize the importance of the Bank's influence in the market, while the Currency School desire to minimize its importance.²⁸ Aside from that, Tooke claims

that the Bank has no power at all over the amount of its notes in the hands of the public.²⁹ When the Bank takes bills, he states, it gives a credit. The merchant sends the check to his own bank, which may either deposit it at the Bank or set it off against its acceptances held by the Bank.³⁰

Despite Tooke's frequent references to London bankers' balances, however, he apparently never saw their monetary implications. He tells the Committee that it is the *advances* of the Bank which produce the effect.³¹ In the fifth volume of his *History of Prices* (1857) he again stresses the management of the securities as the *modus operandi* of influencing the market.³²

The theory that the Bank's special influence depended upon its preëminence in the discount market came to be widely accepted. Though the practices concerning the method of holding reserve were explained, and though it was seen that the Bank's security operations involved changes in bankers' deposits, the monetary significance of such facts was ignored. Alexander Baring (now Lord Ashburton) points out that a banker may hold his reserve either in notes or in balances at the Bank, "the deposits being equally commandable for his purposes as the notes." It is a great mistake, he adds, to suppose that notes come into the Bank as gold goes out or that notes go out with an increase of discounts. In nine cases out of ten such transactions involve changes in deposits. But one is left with the impression that the amount of reserve balances depends upon what the bankers do not care to invest rather than upon Bank discounts, gold withdrawals, and the like. Further evidence is afforded that Baring did not see what governed bankers' balances by his assertion that the reduction of the Exchequer balance was a tightening influence. If he had realized that this transaction tended to increase

community in inextricable difficulties, is an inevitable evil which cannot be mitigated, but on the contrary must be aggravated, by a departure from the rules of legitimate banking to save insolvents from insolvency" (pp. 35-36). He refers, however, to the "monetary panic."

²⁶ Ev., H.L. 1848, q. 2680. See Ev., 1857, q. 2977 for his statement regarding the causes of the rise in the rate prior to 1857. The Bank, he held, had no power at all over the rate except under "partial and peculiar circumstances" (q. 2972).

²⁷ Ev., H.L. 1848, q. 3132. See also *History of Prices*, v, 543-550.

²⁸ Ev., H.C. 1848, q. 5388.

²⁹ *History of Prices*, v, 588, footnote 2.

²⁹ Ev., H.L. 1848, q. 3092. He concedes, however, that the Bank might reduce the circulation by a "violent Operation" (q. 3094).

³⁰ Ev., H.L. 1848, q. 3101. Such were not always his views, he tells the Committee. Formerly he did not see that notes instead of being the causes of transactions were issued as the result of them. He changed his views during the controversy consequent upon the derangement of 1836-37 (qq. 3128-29).

³¹ Ev., H.L. 1848, q. 3127.

³² Pages 544-545.

bankers' balances he would scarcely have made such a statement.⁸⁸

Danson states that bills may be discounted by granting deposit credits as readily as by the issue of notes, and such credits may be used more conveniently and quite as efficiently as notes. But the use Danson seems to make of this idea is that the Bank may extend its demand liabilities to a dangerous extent.⁸⁴

Weguelin gave perhaps a better explanation of the interrelation of central banking transactions than anyone before him. But his theory of control does not appear to differ essentially from Tooke's. The increase of discounts, he states, would not affect the Bank's reserve unless it facilitated a drain of bullion. Sometimes the Bank lends £1,500,000 in a day without any change in the reserve. Nor would an increase of discounts affect the note circulation. If notes were used to discount bills they would be returned immediately to the Bank.⁸⁵ The amount of the active circulation (by which Weguelin apparently means all notes outside the walls of the Bank) depends upon the demands of the public, and the Bank's measures have little traceable effect upon it.⁸⁶ The effect of the sale of securities would be to reduce deposits.⁸⁷

Does Weguelin mean that the Bank makes its policy effective by virtue of its power to

⁸⁴ *The Financial and Commercial Crisis Considered* (2nd ed., 1847), pp. 20-23.

⁸⁵ J. T. Danson, "On the Accounts of the Bank of England," paper read before the Statistical Society, Jan. 18, 1847 (*Journal of the Statistical Society*, x, 150-151).

Milner argues that it is the "floating capital" rather than the currency that may be regulated by the Bank. An increase of discounts by the Bank permits parties to "renovate" their deposits (*On the Regulation of Floating Capital*, 1848, pp. 74-75, 102, 107-108). Though Milner has the idea that discount transactions involve deposits at the Bank instead of affecting merely the currency in circulation, he does not appear to see the significance of reserve deposits from the standpoint of control. His "floating capital" is quite an indefinite thing. It is used variously in the sense of demand and savings deposits, bank loans, and goods ready for consumption (pp. 14, 23-24, 97). Floating capital in the form of deposits at the Bank is said to be the accumulated surpluses of individuals (p. 82).

⁸⁶ *Ev.*, 1857, qs. 241, 499-500, 1310.

⁸⁷ *Ev.*, 1857, qs. 676-677, 717, 746-761, 1308. Weguelin admits that the Bank might cause its issues to increase during periods of great speculation (q. 1304).

⁸⁸ Questions 748-756. An example was given showing that the Bank might receive a check on Jones, Loyd, and Company, which would reduce their balance at the Bank.

create deposits? I believe his grasp of the matter was only empirical. For example, when insisting that Bank rate does not affect the market rate by forcing notes into use he does not say that an increase of discounts tends to increase bankers' balances, but that the increase of discounts leads to the creation of a certain amount of "capital" for the time being.⁸⁸ At another point he states that Bank deposits are large "because the public are not able at those times to find investments to their mind to employ those deposits."⁸⁹ And, to take another example, he states that the power of the Bank in the money market depends upon the "state of the floating capital of the country, and the portion which the Bank itself holds."⁴⁰ Thus Weguelin, though insisting that the mode by which the Bank exerts such influence as it has is not through the note issue, gives no other explanation of how the Bank influences the money market than that its operations are large in relation to those of other banks.

Weguelin went too far in insisting that the Bank's operations did not affect the "active" circulation (as distinguished from the circulation of the Issue Department). The fact that notes of denominations from £20 to £1000 increased about £4,000,000 from 1848 to 1852 and then fell £4,000,000 during the next three years leads one to believe that the reserve position of the London banks was reflected in no small part in their note holdings.⁴¹ London bankers' balances showed a much smaller variation during this period. Weguelin considered that the larger denominations of notes were held by the bankers, but that the greater portion of the total circulation was in the "pockets of the public."⁴²

Chapman was one of the few dissenters to the theory that the Bank's influence arose from

⁸⁸ Questions 1316-23.

⁸⁹ Question 159.

⁴⁰ Question 482 *et seq.* Weguelin defines "floating capital" as "capital applicable to loans of money for short periods"; and again as currency in circulation, as well as the reserves of the Bank and other banks (qs. 501-503).

⁴¹ See *History of Prices*, vi, 560-561. The problem was complicated, however, by the fact that during the decline in 1853-54 the joint stock banks were admitted to the London Clearing House and all London banks began paying balances by means of checks on the Bank.

⁴² Questions 670-672.

its position as a great lender of capital. He was asked if the Bank's influence on money rates was not owing to the fact that it was the largest dealer in "capital for discounts." He replied that he was not sure that the Bank was the largest lender. He was inclined to believe that its power depended upon its ability to abstract notes from the market. But in supporting his point he unfortunately chose a case of seasonal change, as was pointed out to him.⁴³ The members of the Committee apparently did not see the element of truth in Chapman's statement, viz., that the Bank could set the terms on which the market was supplied with note reserves, considered as a part of total reserves.

Hubbard also gave a good explanation of reserve practices and the way the Bank's operations affected the reserves of other banks. He pointed out that the Bank could not reduce the notes held in the pockets of the public by selling securities. But it could reduce the notes held by the bankers by such means. To a very great extent, however, the sale of securities merely reduced deposits. He had traced through a transaction involving a considerable sale of stock and had found that about half the stock was paid for by checks on the Bank, nearly one half in checks on other banks, and a "very small portion indeed" in Bank notes. The majority of London bankers, he believed, kept most of their reserve in Bank balances, though some kept mostly notes.⁴⁴ But since Hubbard believed that notes were very little affected, and since he did not see the monetary aspect of bankers' deposits, it is not clear how he considered that the Bank enforced its terms. Inasmuch as he formally held that the Bank had practically no influence over the rate, but had to follow the "natural laws which ought to regulate the value of money," he apparently considered the Bank essentially the same as any other bank.⁴⁵

Gilbart explained how the London banks settled their claims on one another simply by the transfer of credits at the Bank, and he stated further that under existing practice security and discount operations on the part of the Bank affected London bankers' balances instead of its

reserve. He pointed out that this procedure, "whereby the Bank of England becomes a Central Bank of Deposit," resulted in an economy in the use of Bank notes. But he did not explain that the reserve deposit system gave the Bank an instrument for controlling the other banks.⁴⁶

Newmarch was asked by the Committee in 1857 how the Bank could affect the market rate. He replied that it was not through any effect on the circulation, for advances were not made in notes one time out of a thousand. The change in the rate would come through an effort on the part of the Bank to employ its deposits. It is clear that Newmarch was thinking of the increased supply of loans as such and not the increase of reserve.⁴⁷ In the *History of Prices* he stated that imported gold affected the rate not because of any connection with the circulating medium but because it added to "the Reserves of Capital, seeking employment; — in the first place, in the form of advances by the Bank of England; and in the second place, in the form of advances by other Banks and other persons having capital to employ in loans and discounts."⁴⁸ In explaining why the Bank stood in a different position from other banks, he stated (a) that the Bank employed a larger amount in the money market than any other establishment; (b) that it had the greatest moral influence; and (c) that it held the bullion reserve to protect the exchange.⁴⁹ It is evident that it was the Bank's position as a large lender that impressed him, and that he ignored its power to create reserve deposits or to influence the member banks' reserve cash in the form of notes.

Mill's position was essentially the same as Tooke's. It is true that he pointed out that the directors and the public failed to appreciate the importance of "the effects which the Bank produces by its deposits." And he explained reserve practices. But the consequence of the Bank's holding the deposits of other banks, as he viewed the matter, was simply that it sub-

⁴³ Ev., 1857, qs. 4840-57.

⁴⁴ Ev., 1857, qs. 2593-2628, 2768-70, *passim*.

⁴⁵ Ev., 1857, q. 2365.

⁴⁶ *Elements of Banking* (4th ed., 1860), pp. 39-43.

⁴⁷ Ev., 1857, qs. 1460-67, 1846, 1893-96, *passim*.

⁴⁸ Vol. vi, p. 201.

⁴⁹ Ev., 1857, q. 1889. He estimated that, of a total of £120,000,000 of bills in the discount market, the Bank held 15 to 20 per cent.

jected the Bank to the full burden of any foreign drain.⁵⁰

4. Conclusion

Thus we see the convergence of the different schools of thought toward a common statement of the mode by which the Bank influenced the money market. Though in detail they attached somewhat different meanings to their statements, these differences tended to be ignored or forgotten as time went on. Both variants of the theory denied the fact that credit regulation was essentially monetary in character. All groups tended to regard the Bank as essentially like any other bank except for the magnitude of its operations and the size of its reserve and except for the fact that it was expected to be operated primarily in the public interest.

An important reason for the change in the position of the Currency School was, as we have seen, their belief that the Act of 1844 had taken from the Bank the power to regulate the currency: it could no longer create money but only deal in it.

But observers of all schools of thought were coming more and more to regard the condition of the money market as the practical criterion of central banking policy. Since the Bank was able to enforce its terms without any obvious change in the amount of bankers' cash, attention was not directed to this item particularly. Moreover, the problem was complicated by the fact that one portion of bankers' cash consisted of balances.

They were correct in supposing that the most important *criterion* of ease or pressure was the terms on which the Bank stood ready to supply cash to the market. The demand for reserves by the London banks varied widely and one could not, therefore, attach so much importance to recorded changes in their amount. Moreover, it was the London banks' liquidity as a whole which concerned them. They considered that their advances to bill brokers were practically the same as reserve, but this was true of course only because the Bank stood ready to create reserve cash in exchange for bills to any

extent required. While therefore the measure of liquidity which the Bank afforded to the banking system could not be determined simply by observing the amount of reserves supplied to the market, it was none the less true that part of the *modus operandi* was the ability to create reserve deposits.

It might be supposed that the Bank officials, even though they did not explain accurately their means of control, nevertheless acted as though they understood it. I am not sure that this was the case. It seems likely that their failure to understand the matter led them to underestimate the power of internal control which they possessed.

Partly for this reason and partly because they overestimated the sensitiveness of gold movements to internal economic changes, the members of the financial community were not interested primarily in internal control, but in the problem of external equilibrium. In discussing the effect of gold movements, they spoke of the effect upon the reserves of *banks*, making little distinction between the Bank and other banks, and reasoning that the Bank could modify the result only temporarily. The special problem which occupied attention more and more was how large the international reserve ought to be and how the burden of maintaining it ought to be distributed — whether, for example, the joint stock banks and the discount houses should not bear more of the burden.⁵¹

⁵⁰ This lack of interest in the *modus operandi* of internal control but concentration on the problem of the national gold reserve is shown in the writings of Bagehot, Jevons, and Palgrave in the period following that which this study covers. The main lesson which Bagehot's *Lombard Street* sought to give was how the Bank should be prepared to meet a drain and not how the Bank's influence on the banking system might be strengthened. Palgrave would have weakened internal control, for he wanted the banks to hold a larger amount of notes in their own vaults with the idea of meeting an external drain without necessarily calling upon the Bank (*Bank Rate in England, France, and Germany, 1844-1878*, 1880, p. 39; *Bank Rate and the Money Market in England, France, Germany, Holland, and Belgium, 1844-1900*, 1903, p. 42). Such a plan would have suited Bagehot also except that he thought it impracticable to break with firmly established procedure (Ev., 1875, q. 8099). In Jevons's opinion the chief problem was to find a more satisfactory method of holding the reserve against a drain, one which would guarantee the presence of more metal. Unlike Bagehot, however, he held that, if each bank held its own bullion or note reserve, it might let it run dan-

⁵¹ Ev., 1857, qs. 2031, 2038, 2229-36, 2284, 2312, *passim*. Mill sometimes uses *deposits* in the sense of *reserve*. The Bank of England deposits, he states, are the "bulk of all the deposits in the country" (q. 2229).

I believe that this view of their problem was essentially mistaken. England's special position made it necessary for her to guide the international standard, and not simply to make an adjustment to an objectively determined situation.⁵² While the problem of the exchange defense fund was very important, that of internal credit regulation was of even greater importance.

The explanation of the nature of the Bank's influence on the money market as given in the 'fifties underwent no important change during the remainder of the century, at least so far as the well-known writers were concerned. In the works of Giffen, Nicholson, Sidgwick, Fawcett, and MacLeod one finds no explanation of the significance of reserve deposits in discussions of the influence of the Bank.⁵³ At the inquiry of

generously low. He therefore suggested that the banks form an association for holding a reserve against a drain. He failed to reckon with the fact that his plan provided for no adequate internal control (*Money and the Mechanism of Exchange*, 1875, pp. 320-323).

⁵² See Chapter XIV for further discussion of this point.

⁵³ Sir Robert Giffen, *Essays in Finance, Second Series* (1886), pp. 37-88. J. S. Nicholson, *A Treatise on Money and Essays on Monetary Problems* (2nd ed., 1893), pp. 75 *et seq.* Henry Sidgwick, *The Principles of Political Economy* (2nd ed., 1887), bk. ii, chs. iv, v. (Sidgwick, p. 228n, states that there is a profound distinction separating the credit of the Bank of England from the credit of all other banks; but he makes no use of the point in explaining control.) Henry Fawcett, *Manual of Political Economy* (7th ed., 1888), bk.

the Gold and Silver Commission, Gibbs, a former governor, mentioned the matter, though very little was made of the point. When asked to explain how gold is related to credit and prices, he said: "He who has to pay for a cargo must needs have a larger balance at his bankers than he who has to pay for a ton of the same commodity; the banker must needs have a larger balance with the Bank of England, and the Bank of England a larger reserve of notes, involving the necessity of a proportionately larger stock of gold."⁵⁴ Marshall and Nicholson in their evidence made no mention of the point. It is interesting to note that in Dunbar's *Theory and History of Banking* it is not until the third edition, as revised by Sprague, that the explanation appears.⁵⁵ The first account of the role of reserve deposits that I have seen — since those given by Pennington and Hume a century ago⁵⁶ — is by Hartley Withers in 1909.⁵⁷

iii, ch. xi. H. D. MacLeod, *A History of Banking in Great Britain* (1896), pp. 150-182.

⁵⁴ *Ev.*, 1887, q. 5275.

⁵⁵ Third ed., 1917, pp. 86-96. The other editions appeared in 1891 and 1900, the second revised by Sprague also. A similar absence is to be noted in Simon Newcomb's *Principles of Political Economy* (1885). See his discussion of the Bank of England, p. 510.

⁵⁶ See Chapter III.

⁵⁷ *The Meaning of Money* (2nd ed., 1909), pp. 203-205, 212, 229-230.

TREASURY OPERATIONS AND RELATED FACTORS

PEEL'S income tax together with a trade revival changed the recurring Treasury deficits into surpluses beginning in 1843.¹ The net position of the Treasury with the Bank, though not depending necessarily upon whether there was a surplus or deficit, became in fact much stronger. Deficiency advances, which previously had been quite large — frequently from £4,000,000 to £8,000,000 during a quarter — dropped off sharply in 1844 and with few exceptions continued quite small during the next fifteen years.² Ways and Means bills practically disappeared for this period, and the Exchequer balance was very much increased.³ This improvement in the position of the Treasury with the Bank — more marked in 1844 than in any other one year, though extending from 1843 to 1846 — was a nonseasonal tightening influence on the money market, similar in its effect to the sale of securities by the Bank. But it did not change the general problem of the seasonal release and absorption of funds by the Treasury. Funds were now released more largely by the reduction of the Exchequer balance than by the issue of Deficiency bills.⁴

¹ See J. F. Rees, *A Short Fiscal and Financial History of England, 1815-1918*, pp. 93-95. See also my Table 6, pp. 74-75.

² Maximum amounts advanced on Deficiency bills on which interest accrued are given in the following table. Amounts advanced and repaid the same day are not included (P.P. 1854, (462), XXXIX, 14). For total Deficiency bills issued each quarter from 1844 to 1857, see Report, H.C. 1848, app. 11; Report, 1857, app. 26; Report, 1858, app. 8.

1845		1849	
Jan. 7	£ 950,000	Apr. 14	£ 400,000
Apr. 6	1,880,000		
Jul. 7	505,000		
1846		1852	
Apr. 8	1,625,000	Apr. 6	1,000,000
		Jul. 3	360,000
1847		1853	
Apr. 7	2,475,000	Apr. 9	300,000
		Jul. 7	2,200,000
1848		Oct. 11	800,000
Apr. 7	1,150,000		
Jul. 7	1,150,000		
Oct. 12	1,161,000		
		1854	
		Jan. 6	2,040,000
		Apr. 7	2,808,000

³ For weekly data of the Exchequer deposit, see Appendix, Charts XI and XV. For the annual issues of Deficiency and Ways and Means bills, see Table 5, pp. 72-73.

⁴ Graphically, the curve of the "Net Due to Treasury"

But in one respect the problem of the dividend payments was different beginning in 1844. The increase of the circulation at the time the dividend was paid reduced the reserve of the Banking Department. To the extent that the increase of the circulation represented increased requirements of the general public, or to the extent that it was in response to a seasonal increase in the demand for reserve by the banks, it was a tightening influence. However, to the extent that it represented excess reserves of the London banks it was evidence of relaxation, as before 1844.

The significance of the Treasury's operations from the standpoint of the general control of credit remained as great as before. The periodic absorption of funds by the Exchequer balance gave the Bank an important means of governing the rate in the market. On the other hand, it was necessary to keep the terms of credit at the Bank in adjustment with the rate offered by the Treasury in order to control the release of funds to the market via the Treasury.

The public's understanding of the significance of Treasury operations was probably less after 1844 than it had been during earlier years. The Lords Committee on Commercial Distress (and some of the members of the Commons Committee) claimed that the Act of 1844 made it impossible during a general credit shortage for the Bank to give adequate accommodation to the Treasury and to commerce at the same time. If Deficiency advances had been required in October, 1847, as they had been in April, the panic would have been aggravated, the Committee believed. Without definitely saying so they implied that the Deficiency advances as such would have reduced the reserve of the Banking Department. More

more nearly approximates the curve of the Exchequer balance. Compare Charts XII and XV.

especially they reasoned that advances to the Treasury reduced the aggregate accommodation to commerce.⁵ Many others took a similar position.⁶ Gilbert stated that Deficiency advances were restrictive if they came when large advances were required by the discount market.⁷ Baring (Lord Ashburton) claimed that the reduction of public deposits during the April panic added to the distress. He reasoned that the smaller public deposits afforded the Bank less means of accommodating commerce.⁸

The Bank officials showed a better grasp of the matter. Norman pointed out that, if Deficiency advances had been required during the October panic, the notes would probably have remained in the money market and would have relieved the Bank of a corresponding demand for commercial accommodation. The amount of notes in the hands of the public would not be affected by Deficiency bills.⁹ Morris stated that the Bank's reserve would be reduced by the payment of the dividend in any case, and whether Deficiency advances were required did not affect the matter.¹⁰ If Deficiency advances were required, other securities would be correspondingly reduced. Other portions of his explanation, though partially correct, were confusing. For example, he stated that "we always take care to have a sufficient amount of notes coming in to enable us to pay the dividends."¹¹ This would lead the Committee to suppose that there was no net increase of the

circulation arising from the dividend payment.

In the first place, the critics of existing procedure seemed to overlook the fact that the increased currency requirements of the general public coming at the end of one financial quarter and at the beginning of the next, and owing partly to the payment of the dividend, were a tightening influence regardless of the Treasury's position with the Bank. Secondly, they failed to view the change in the Treasury's position with the Bank from the standpoint of the reserve position of the London banks. Thus the refusal of the market to take all the Exchequer bill offerings in April, 1847, requiring the Treasury to draw more heavily upon the Exchequer balance and to resort to the Bank for Deficiency advances, was an easing influence on the market. (This factor was offset in part, however, by the sale of securities by the Bank.) On the other hand, the improvement in the Treasury's position through October, making Deficiency advances unnecessary, was a tightening influence. It was a factor tending to increase the market's indebtedness to the Bank; and, since the Bank during the panic placed various restrictions upon discounts and advances, the market rate was sensitive to the volume of indebtedness to a greater extent than usual. Moreover, it is likely that the rates exacted by the Bank depended partly upon the amount of discounts and advances and not merely upon its reserve position.

Evidently the City was coming to regard the dividend payment as a deflationary influence. Tooke stated that as the July, 1847 dividend approached there was apprehension regarding the effect upon the Bank's reserve.¹² The Select Committee in 1858 stated that it was well known that there were periodical disturbances to the reserve when the dividend was paid.¹³ This was true. Nevertheless the dividend payment was normally a relaxing and not a tightening influence. Notwithstanding the seasonal reduc-

⁵ Report, H.L. 1848, sec. x.

⁶ Brown, Ev., H.L. 1848, q. 2400. Glyn, Ev., H.L. 1848, qs. 1835-36.

⁷ He added that it was peculiarly unfortunate that the Treasury was likely to require advances, owing to the less punctual payment of taxes, when there was commercial pressure (*Practical Treatise on Banking*, 5th ed., vol. 1, p. 162).

⁸ *The Financial and Commercial Crisis Considered* (2nd ed., 1847), pp. 22-23.

⁹ Ev., H.L. 1848, qs. 2751-53. Weguelin, however, took the view of the Lords Committee on Commercial Distress. See Ev., 1857, qs. 404-405.

¹⁰ Whether the Treasury provided for the dividend by revenue collections or by the issue of Deficiency bills made no difference in the amount of notes and coin required by the general public. But a (nonseasonal) change from a situation where Deficiency bills were required to one where they were not would mean an absorption of funds by the Treasury; and the note reserves of the London banks would tend to show less than their usual seasonal increase.

¹¹ Ev., H.C. 1848, qs. 2908-10, 2926-30, 3716. Cotton's

position was similar (Ev., H.L. 1848, qs. 3258-59). See also Torrens, *Peel's Bill Explained*, p. 43.

¹² *History of Prices*, IV, 314.

¹³ Report, 1858, p. viii. The Committee added that the public deposits were "in a satisfactory state" by October 24, 1857, implying that if they had been smaller than they were (£4,861,740), the pressure would have been increased. This was the same mistake that Baring had made in 1847.

tion generally shown in the Bank's reserve, the funds released to the market in the payment of the dividend were generally greater than the total funds absorbed by the repayment of temporary advances by the market, by the increase of the currency requirements of the general public, and by the seasonal increase in the demand for reserve by the London banks. It was only when the Bank's reserve was low to begin with that a further reduction from seasonal causes led the management to restrict credit and thus more than compensate the release of funds through the dividend payment.

On the whole, comparatively little importance was attached to the fact that the seasonal absorption of funds by the Treasury forced the market to apply to the Bank during a considerable portion of each quarter. Weguelin, however, pointed out that it gave the Bank a certain temporary power over the market rate. Moreover, he advised against spreading the

dividend payments more evenly through the year on the ground that it was desirable for the Bank to have such power.¹⁴ Hubbard also admitted that the accumulation of the revenue gave the Bank a temporary power over the rate.¹⁵ But they both implied that this temporary effect had no real significance from the standpoint of the general control of credit expansion.

It is noteworthy that little or no attention was given to the fact that the market could take funds indirectly from the Treasury by refusing a certain portion of the Exchequer bill offerings. In Anderson's memorandum to the Committee on Public Monies one finds nothing of this sort, though it included an explanation of the Treasury's relations with the Bank. Nor did Chisholm deal with the matter in his Report on Public Income and Expenditure.

¹⁴ Ev., 1857, qs. 393-405, 1192.

¹⁵ Ev., 1857, qs. 2365-68.

CHAPTER XIII

DISCOUNT POLICY

JUST when the London banks began the practice of leaving money at call with the bill brokers to an important extent is not altogether clear. Richardson in 1810 referred to taking money from the London banks which they could call at a moment's notice, and also to making one-day loans to them.¹ Gurney in 1819 referred to borrowing from the London banks for one day on account of the "wants of others." He stated also that there was such a scarcity of bills that he was having to buy government securities to keep his funds employed, which would seem to imply that he was operating with borrowed money as well as carrying on a strictly brokerage business. It may also be noted that he referred to himself at that time as a *money dealer*.² In an earlier chapter³ it has been pointed out that the bill brokers did not obtain aid from the Bank, at least on an extended scale, until after 1830, and undoubtedly this lack of ready access to the lender of last resort would interfere with their holding deposits from the London banks; but it would not preclude altogether their holding such deposits.⁴

1. *The Bank and the Bill Brokers*

At all events the deposit business of the bill brokers (or money dealers, as they came to refer to themselves) had grown rapidly during the thirty years ending in 1858. The Select Committee in 1858 called attention to the large

amount of deposits placed with the bill brokers by the London banks.⁵ Neave estimated the deposits of three large houses at £15,500,000.⁶ Good descriptions of the brokers' business were given by Gurney before the Lords Committee on Commercial Distress and by Chapman, managing director of Overend, Gurney, and Company, before the Select Committee in 1857.⁷

Gurney stated that his firm took money from City and West End bankers⁸ and from a large proportion of the country bankers. The Stock Exchange, he said, absorbed much of similar floating money.⁹ Chapman,¹⁰ discussing the money dealers' business nine years later, stated that Overend, Gurney, and Company received money on deposit as "other banking houses" did, allowing interest at "something less" than the Bank discount rate "for money payable on demand." Their business (of holding deposits) had always been with the banking interests; in more recent years deposits for private parties had much increased. People preferred leaving their money with the discount houses to holding Exchequer bills because in time of pressure it was difficult or impossible to sell Exchequer bills. The discount houses in turn placed their money mostly in bills of exchange. They loaned to some extent on government securities and, when money was very hard to invest, on other securities. But it was the ex-

⁵ Report, 1858, p. v. Wilson stated that the practice had been growing (Ev., 1858, q. 616).

⁶ Ev., 1858, q. 402.

⁷ See also "The Bank of England and the Bill Brokers," *Economist*, March 20, 1858. The best recent account of the development of the discount houses is in King's *History of the London Discount Market*.

⁸ Palmer stated, however, that the West End bankers were more accustomed to holding Exchequer bills than to placing money on call with bill brokers (Ev., H.L. 1848, q. 1049).

⁹ Ev., H.L. 1848, qs. 1337-45. The examiner suggested that the business of Overend, Gurney, and Company was equal to that of all the other bill brokers taken together.

¹⁰ Chapman was with Gurney's from 1817.

¹ Ev., 1810, pp. 147-148.

² Ev., H.C. 1819, pp. 175, 178.

³ Chapter VIII, section 1.

⁴ Cf. King, *History of the London Discount Market*, pp. 62-70. King states that the usury laws, as well as the lack of access to the Bank, prevented the bill brokers from holding bankers' call money, since they would have had to pay as high a rate as they were permitted to charge. Perhaps he overemphasizes this difficulty. After 1817 the market bill rate was usually lower than 5 per cent. Moreover a rate of 5 per cent on bills would not preclude the bill brokers' getting call money at lower rates. See Chart B, pp. 92-93.

ception and not the rule for Lombard Street houses to advance on any other security than bills of exchange. Chapman thought it very objectionable for discount houses to hold Exchequer bills, since they could not convert them into cash in periods of pressure.¹¹

David Salomons submitted data showing that the London and Westminster Bank at the periods of its half-yearly statements kept amounts on call with the bill brokers which averaged more than half the amount of its cash in hand.¹² According to Weguelin, the joint stock banks in 1856 had only £2,000,000 of reserve against deposits of about £30,000,000,¹³ aside from money at call. It would seem therefore that they relied partly upon their call money. Salomons agreed that the banks generally regarded their money with brokers as part of their available cash, but he claimed that the London and Westminster Bank did not so regard it during the panic and would not have called it in. In both panics, he pointed out, money with some of the bill brokers did not come in when it was asked for.¹⁴

Wilson stated (in 1845) that the London bankers by not paying interest on deposits encouraged the deposit business of the bill brokers.¹⁵ No doubt such was the case as re-

gards deposits held for country bankers and for nonbanking firms, but not as regards money received at call from London banks. For London banks, placing money with the bill brokers was a subterfuge for obtaining access to the Bank without rediscounting. Moreover, the new joint stock banks in London began the practice of paying interest on time deposits.¹⁶

The bill brokers had had discount privileges at the Bank since 1830,¹⁷ but regulations which discriminated against them were not unknown before the Bank made its new rule in 1858. In 1839 the Bank considered curtailing their discount privileges, but did not actually adopt such a course.¹⁸ During the period of the large railway deposits in 1846, the Bank reduced the term of advances from ninety to sixty days and finally to ten days.¹⁹ Gurney stated that in the October panic of 1847 the Bank withdrew "usual" accommodation by way of discount, though there appears to have been no discrimination against the bill brokers as such. He stated that the Bank was liberal in the amount of credit extended to him on the Saturday before the Treasury Letter was issued (Monday, October 25, 1847), giving him £200,000 though charging 9 per cent.²⁰ Wegue-

don joint stock banks in January, 1845 were £7,984,305; of the ten banks in June, 1860, £47,577,823 (Gilbart, *Elements of Banking*, 4th ed., pp. 69-71).

¹² When the London and Westminster Bank began business in 1834 the rate was 2 per cent for sums under £1000. Larger sums were allowed a rate determined when the deposit was taken. Competition later forced a rate nearer Bank rate. About the time of the panic of 1857 the allowance rate was 1 per cent under Bank rate for deposits over £500. In 1858 the joint stock banks ceased for the time to maintain a constant difference between the deposit rate and Bank rate, but allowed an "expedient" rate. The rate was not fixed by agreement among the banks, but each bank notified the others of any action taken. (D. Salomons, *Ev.*, 1858, qs. 1130-33, 1145, 1210, 1254-63.) Salomons said the London private banks allowed interest in some cases (q. 1203). Neave said that they allowed interest only in special cases where the deposits were large (*Ev.*, 1858, q. 1104). Cf. Thomas, *Rise and Growth of Joint Stock Banking*, vol. 1, p. 556.

¹³ Norman, *Ev.*, 1840, qs. 3327-28. Norman's statement is that the bill brokers had had "accounts" with the Bank since that time, but discount accounts seem from the context to be included.

¹⁴ D. B. Chapman, *Ev.*, 1857, q. 5195.

¹⁵ Gurney, *Ev.*, H.L. 1848, q. 1209.

¹⁶ *Ev.*, H.L. 1848, qs. 1098, 1118-20. Compare with Chapman's evidence, 1857, q. 5107. See below for the extent to

¹¹ *Ev.*, 1857, qs. 4941-54, 5098-5106, and 5198. The difficulty in holding Exchequer bills or other government securities was that in periods of pressure the Bank refused to make advances against them. Such was the case in 1837, 1839, 1847, and 1857. The bill brokers needed the type of paper which the lender of last resort would accept.

¹² *Ev.*, 1858, q. 1189. The estimate above is based upon data for ten years. The amounts (000 omitted) for selected dates are as follows:

	Deposits, all "at call"	Cash in hand	Money at call	Government securities
Dec. 31, 1843	£ 3,590	£ 563	£ 629	£1,040
June 30, 1856	11,170	907	608	1,980
Dec. 31, 1856	11,438	1,120	432	1,923
June 30, 1857	13,913	967	688	3,353
Dec. 31, 1857	13,889	1,226	1,116	3,583

¹³ Letter to Lewis, Report, 1857, app. 1. Salomons pointed out to Weguelin, however, that on November 11, 1857 the reserve of the London and Westminster Bank alone amounted to £1,010,000 against deposits of about £14,000,000 (*Ev.*, 1858, qs. 1215, 1235-40).

¹⁴ *Ev.*, 1858, qs. 1171-72, 1245-46. Sanderson and Company suspended in 1847 and, under the name of Sanderson, Sandeman, and Company, again in 1857. Bruce, Buxton, and Company, reorganized as Bruce, Wilkinson, and Company, also suspended in both periods. (D. M. Evans, *History of the Commercial Crisis, 1857-58*, 1859, p. 52.)

¹⁵ *Capital, Currency and Banking* (1847), pp. 31-33 (*Economist*, March 22, 1845). The deposits of the five Lon-

lin in 1857 stated that the Bank had at times placed peculiar restrictions upon the business conducted through the discount brokers. It had sometimes reduced the term of bills which they might bring to thirty days to run.²¹ Hubbard stated that the Bank did not recognize the responsibility of turning securities into cash for the bill brokers when the bankers called in their money.²² On October 28, 1857 Overend, Gurney, and Company asked if they might have assurance of unlimited discounts. The Bank refused to give such assurance, insisting that applications be considered as they were made.²³ As a matter of fact, however, the Bank did grant large discounts and advances to the bill brokers.²⁴ But it must not be supposed that the market obtained nearly all of its accommodation through that source at this period.²⁵ The brokers obtained only slightly more than a fourth of the total discounts and advances made during the last quarter of 1857. The country banks, as in previous panics,²⁶ obtained direct aid from the Bank on a large scale; while the merchants and traders obtained as much accommodation as the brokers and bankers taken together. The extent to which discounts for bill brokers, as against discounts for traders, were the channel through which the Bank gave aid to the market will be considered further after we have examined the relation between Bank rate and the market rate.²⁷

which the Bank restricted discounts during the October panic.

²¹ Ev., 1857, q. 34.

²² Ev., 1857, q. 2380.

²³ Neave, Ev., 1858, qs. 374, 543-545.

²⁴ According to Neave, the failure of Sanderson, Sandeman, and Company was owing to their inability to offer the Bank good securities, not to the refusal of the Bank to take good bills from them (qs. 596-599).

²⁵ "Analysis of Discounts and Advances (London and Country), October, November, and December 1857," Report, 1858, app. 13 (000 omitted).

	London	Country	Total
Scotch banks	£1,297	...	£1,297
English banks and bankers	1,076	£5,998	7,074
Bill brokers and discount companies	9,456	...	9,456
			£17,827
Merchants and traders	14,440	3,535	17,975
			£35,802

Neave stated that the banks obtained three fifths of the Bank's "special advances," i.e., emergency advances (Ev., 1858, qs. 317-318).

²⁶ For an account of the aid given to the country banks in 1847, see Morris, H.C. 1848, q. 2645.

²⁷ See the end of Section 2.

Shortly after the panic of 1857 the Bank, objecting to the large potential demands for discounts by the bill brokers, passed a rule which was intended to curtail drastically the accommodation which they were to receive in the future.²⁸ From the restrictions and threatened restrictions cited, however, it must be clear that the new rule was not a sharp break with the past. Under the new rule the bill brokers were not to be permitted to discount any bills at the Bank whatever. They could receive only *advances*. The quarterly advances were to be made to them as usual. Other advances were to be considered "special and dealt with accordingly."²⁹ The Bank, Neave stated, would feel at liberty to do as it chose. He added, however, that in moments of extreme difficulty the Bank would help the brokers.³⁰ Despite his statement that the rule would alter the Bank's practice quite decidedly, it seems clear that the directors were intending to feel their way carefully. They were willing to threaten the brokers in order to bring about a change from what they regarded as an unsound practice. It is not so certain that they ever intended to carry out such a threat.

Governor Neave in discussing the purpose of the rule did not follow a single line of argument. He stated first that its object was to keep the resources of the Bank more "within her own compass," and to compel the bill brokers to maintain a reserve, which at the time they did not do.³¹ Further on he stated that the rule would increase caution and "do away a good deal with the deposits with the brokers at call."³² The rule might therefore prevent the bankers from keeping so large a portion of their reserves on deposit with the brokers.³³ Finally, he stated that the existing system encouraged an inferior grade of bills. The broker, having taken the money at interest, felt obliged to get bills where he could, even though he had to make some concessions as to quality.³⁴

²⁸ Glyn stated that the rule was merely a reversion to an old custom (Examination of Neave, 1858, q. 714). He referred presumably to the practice prior to 1830.

²⁹ Neave, Ev., 1858, qs. 396-398, 405-406, 688.

³⁰ *Ibid.*, qs. 695, 709-711.

³¹ *Ibid.*, q. 399.

³² *Ibid.*, q. 700.

³³ *Ibid.*, q. 706.

³⁴ *Ibid.*, qs. 924 and 1102.

There can be no doubt that the main object of the rule was to compel the brokers or bankers or both to hold more reserve instead of throwing so much of the burden upon the Bank. The alleged object of keeping the resources of the Bank more "within her own compass" suggests that the Bank desired to repudiate its obligations as a lender of last resort.⁸⁵ Everything considered, however, the object seems to have been not to go so far, but to compel the market to get into a position where it would have less occasion to resort to the Bank.

The argument in favor of the rule showed a fundamental misconception of the Bank's true position. Even supposing the rule to have been successful in compelling the brokers or bankers to hold a larger reserve, once such a convention had been established any uneasiness would have led the market to attempt to increase its reserve by realizing on bills and government securities. Consequently the Bank would have had to increase its securities in some form or other just as in the actual situation. It seems odd that Neave did not grasp this point inasmuch as he pointed out that the bankers strengthened their reserve in times of difficulty and that it was for this very reason that they called in money from the bill brokers.⁸⁶ Possibly he considered that such was the case only because the normal reserve was too small. However, even supposing the banks and brokers had been willing to permit their reserves to dwindle during a drain, in so far as the reserves consisted of deposits at the Bank, the Bank would still have had to meet a drain out of its reserve.

This last point was brought out by the *Economist*. In discussing the new rule the writer of the article proposed that the discount houses should either revert to the bill brokerage business strictly, accepting no deposits, or maintain a reserve as bankers did. He expressed a doubt, however, whether the Bank would itself maintain a larger reserve even though the brokers and bankers did maintain

a large reserve on deposit with the Bank. The rule would be of no avail, he claimed, unless the Bank's reserve, which was the reserve of the nation, were also increased.⁸⁷

Possibly the directors did not say all that they had in mind. No doubt they would have been more willing to contemplate holding a larger central reserve if the bankers or brokers had held larger reserve deposits. Undoubtedly the directors felt that it was unfair for the Bank to stand ready to meet large demands for discounts from people who in periods of easy rates discounted no bills at all and who maintained no reserve deposit account which might be used as a source of earnings.

The best argument against the new rule was given by Chapman before its actual adoption. If the money dealers did not go to the Bank when there was a money shortage the public would have to go direct. It was a relief to all parties for the money dealers to go quietly to the Bank and relend to the public. A refusal to discount by the money dealers would create alarm. He recalled that "about 1839" an intimation from the Bank that it might refuse to discount for the money dealers had caused Gurney's to hold up temporarily all discounts for the public. The Governor (Sir John Rae Reid), after seeing the consequences of the Bank's policy, agreed to discount for Gurney's.⁸⁸

It seems to have been quite generally understood that the existing system was simply a device by which the banks could have access to the Bank without violating the tradition against rediscounting.⁸⁹ Weguelin, for instance, asked Salomons whether the existing arrangement was not "equivalent to a rediscount of

⁸⁵ "The Bank of England and the Bill Brokers," *Economist*, March 20, 1858.

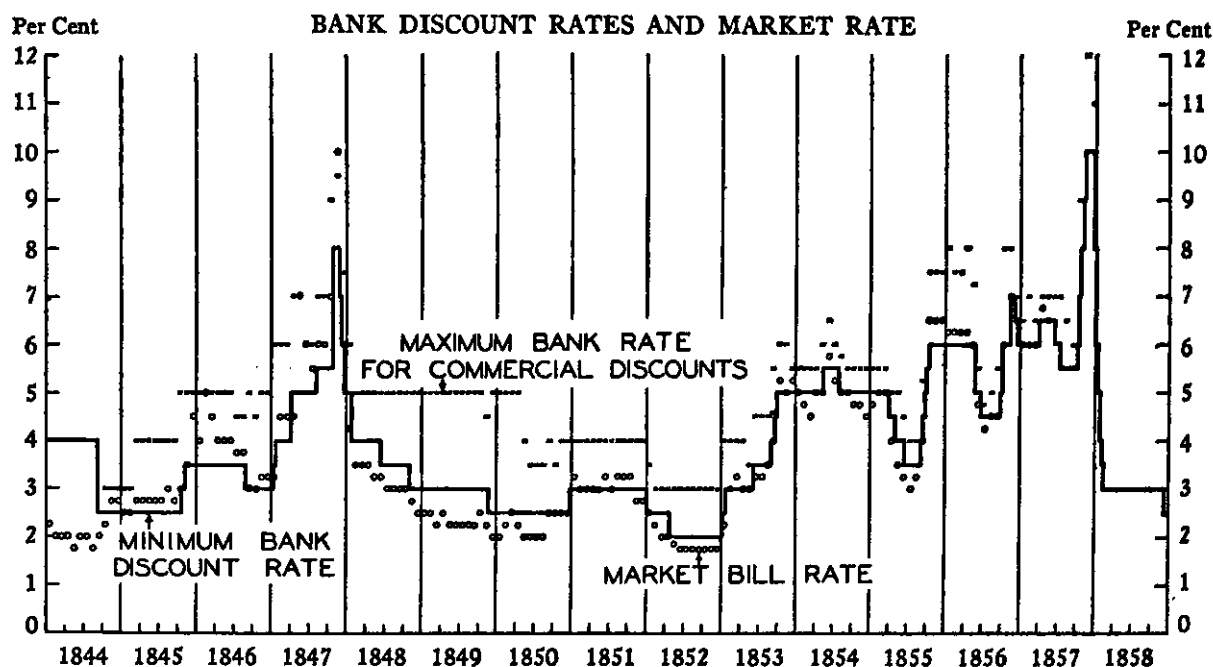
⁸⁶ *Ev.*, 1857, qs. 5190-95.

⁸⁷ The London private banks had not rediscounted since 1825. Cf. Glyn, H.L. 1848, q. 1916. Chapman stated that the London joint stock banks did not rediscount (*Ev.*, 1857, qs. 5211-15). Many of the country banks, however, continued to rediscount. S. S. Lloyd of Lloyds and Company stated that the joint stock banks (presumably in the country) kept short bills which they sent to the Bank in case of need. The Bank would not, however, take a bill from a note-issuing banker (*Ev.*, 1858, q. 2785). At an earlier period Wylie stated that most of the banks in Liverpool rediscounted with the Bank (*Ev.*, H.L. 1848, q. 2086).

⁸⁸ See Chapter XV.

⁸⁹ *Ev.*, 1858, qs. 113-114, 145-147, and 697-698. London bankers' balances rose from £2,511,000 on October 10 to £5,458,000 on November 12, 1857; and to more than £10,000,000 after the payment of the dividend in January, 1858. Cf. Chart xv.

CHART C



For minimum Bank discount rate, see Report, 1857, app. 13; P.P. 1873, (129), XXXIX; Hubbard, Ev., 1857, q. 2760; Weguelin, Ev., 1857, q. 34. For monthly maximum discount rate, see Report, H.C. 1848, app. 13; Report, 1857, app. 28; Report, 1858, app. 10. For the market bill rate (monthly), see Chapman, Ev., 1857, q. 4876. For the term of bills eligible at the Bank, see Tooke, *History of Prices*, v, 563-564; Weguelin, Ev., 1857, q. 34.

bills.”⁴⁰ “A Banker,” writing in the *Economist*, argued that if the Bank would not lend to the bill brokers in a crisis, then the banks would themselves have to apply to the Bank. The directors, being large merchants, would consider it their duty to prevent a panic and so would give relief.⁴¹

In discussing the new rule again in 1860, the *Economist* warned against the danger of excluding the brokers from the discount privilege, though it argued that they should maintain a reserve deposit at the Bank. The brokers, stated the article, could not easily protect themselves by refusing to discount, since it was hard to turn away a regular customer. Moreover, if the brokers refused to discount at the beginning of a panic it would only aggravate the distress. The Bank could not of course agree to discount to an indefinite extent for anyone. It should establish a line of credit which the

brokers might not exceed.⁴² The obvious criticism of the *Economist's* suggestion is that such a course would still have been a repudiation of the Bank's obligations as a lender of last resort and so would not have been acceptable to the bill brokers.

Thus the Bank continued to give accommodation in some form to the bill brokers, and the rule was a dead letter as far as its main content was concerned. The Bank officials of course had stated that they would give such aid as they saw fit in moments of extreme difficulty. It seems likely that the main object of the rule was to threaten the brokers vaguely, with the idea of forcing them to maintain reserve balances at the Bank.⁴³ It was of course desirable that the Bank should hold sufficiently large deposits from the market to enable it to pursue a credit policy not dictated by considerations of earnings. The failure of the bill brokers to bear their share of the burden of maintaining the reserve might have contributed toward an

⁴⁰ Ev., 1858, q. 1173. Salomons replied in the negative, insisting upon the legal distinction.

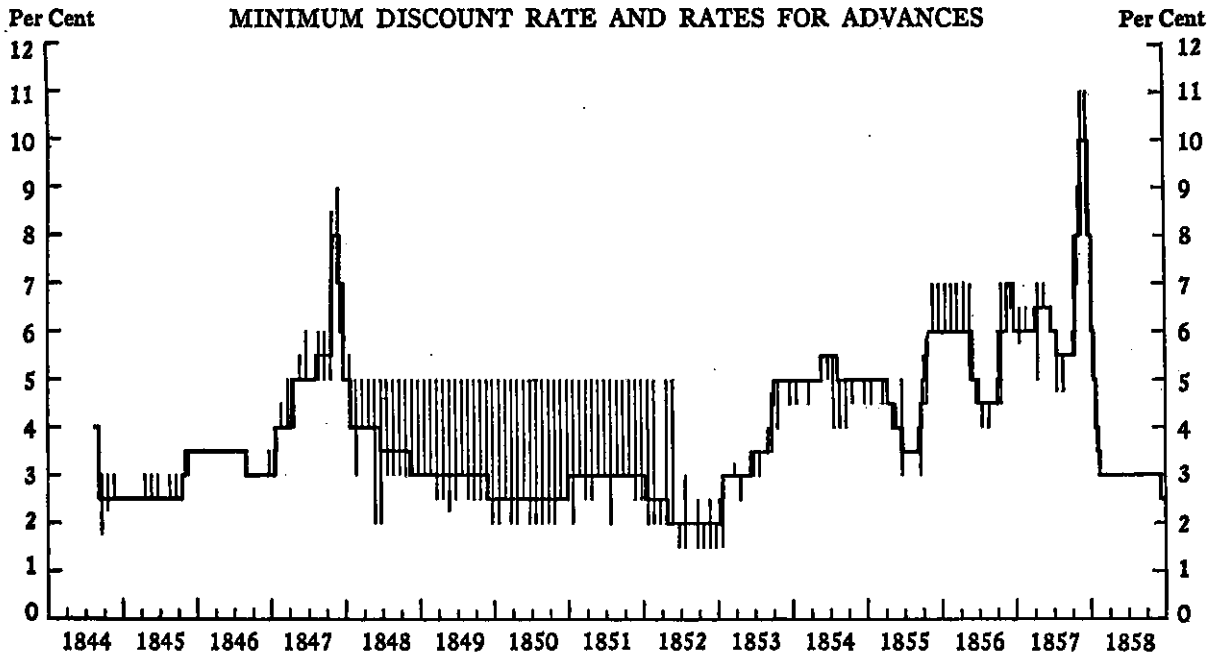
⁴¹ “What is the Proper Reserve of the Bank of England?” *Economist*, April 3, 1858. Wilson, in examining Neave, stated that the business was for the convenience of the bankers as well as the public (Ev., 1858, q. 617).

⁴² “The Bill-Brokers and the Bank of England,” *Economist*, April 7, 1860.

⁴³ Neave, Ev., 1858, q. 689.

CHART D

MINIMUM DISCOUNT RATE AND RATES FOR ADVANCES



For monthly maximum and minimum rates for advances, see Report, 1857, app. 6; Report, 1858, app. 3. (For minimum discount rate, see sources given for Chart C.)

undesirable relaxation as the central gold reserve increased.

2. *The Actual (Quantitative) Relation of the Bank Rate to the Market Rate*

After the Bank Act of 1844 the directors abandoned their rule of not reducing Bank discount rate below 4 per cent. While this was a step of considerable importance, I believe it has been considered a greater departure from previous methods of control than was actually the case. Hawtrey, for instance, states that under the new method of management the Bank competed for a "substantial amount of discount business under conditions of cheap money, which, with its previous practice, would have allowed it practically none."⁴⁴ It is true that, under the old practice, bills from the London money market were not sent to the Bank except during periods of pressure, but second grade bills were taken there at all times both from London and the provinces.⁴⁵ On the other hand it is a mistake to suppose that the discount houses took bills to the Bank during periods of cheap credit *after* 1844. As Gurney

stated, "We never apply to the Bank, unless the Amount of Circulating Medium in the City is below the Requirements, then we became in a large Degree the Agents in getting it from the Bank. If the Supply of Circulating Medium is adequate we never go near them."⁴⁶ Gurney's statement of course applies only to the bill brokers. The data regarding rates and the amount of discounts at the Bank lead one to believe that the merchants with prime bills also stayed away from the Bank in periods of very low rates. The large amount of discounts beginning in 1845 was owing to a group of events, such as the improvement in the cash position of the Treasury, the railway deposits, and the drain, which would have made the market dependent upon the Bank in one form or another under the old procedure. With the return of cheap money in 1848-1850 and again in 1852 the curve of discounts declines as in 1838 and in 1843-44. Moreover, the discounts in both periods included those for country banks under agreement. The most that can be said is that the new rule was administered on some few occasions so as to allow discounts

⁴⁴ *Art of Central Banking*, p. 138.

⁴⁵ See Chapter VIII.

⁴⁶ *Ev.*, H.L. 1848, q. 1344.

(presumably from the London money market) to increase without the Bank's raising the rate immediately to 4 per cent. In most cases the minimum discount rate was 4 per cent or above when the market was clearly in the Bank.⁴⁷

TABLE 8
MINIMUM BANK DISCOUNT RATE AND DATES OF
CHANGES, 1844-1859 *

Date	Minimum rate	Date	Minimum rate
1844 Sept. 5	2½	1855 June 14	3½
1845 Oct. 16	3	Sept. 6	4
Nov. 6	3½	Sept. 13	4½
1846 Aug. 27	3	Sept. 27	5
1847 Jan. 14	3½	Oct. 4	5½
Jan. 21	4	Oct. 18	6
April 8	5	1856 May 29	5
Aug. 5	5½	June 26	4½
Oct. 25	8	Oct. 1	5
Nov. 22	7	Oct. 6	6
Dec. 2	6	Nov. 13	7
Dec. 22	5	Dec. 4	6½
1848 Jan. 27	4	Dec. 18	6
June 15	3½	1857 April 2	6½
Nov. 2	3	June 18	6
1849 Nov. 22	2½	July 16	5½
1850 Dec. 26	3	Oct. 8	6
1851 No change		Oct. 12	7
1852 Jan. 1	2½	Oct. 19	8
April 22	2	Nov. 5	9
1853 Jan. 6	2½	Nov. 9	10
Jan. 20	3	Dec. 24	8
June 2	3½	1858 Jan. 7	6
Sept. 1	4	Jan. 14	5
Sept. 15	4½	Jan. 28	4
Sept. 29	5	Feb. 4	3½
1854 May 11	5½	Feb. 11	3
Aug. 3	5	Dec. 9	2½
1855 April 5	4½	1859 April 28	3½
May 3	4	May 5	4½
		June 2	3½
		June 9	3
		July 14	2½

* For Bank discount rate from 1773 to 1844, see note to Chart B, p. 93.

Bank rate after 1844, in contrast with the period preceding, was a minimum rate. This was the rate for prime bills in London and the rate which the money dealers presumably paid. Bills not so well known (and therefore not dis-

countable in the London market at the lowest rate) were taken by the Bank at higher rates, which varied according to the parties and nature of the bill. Bills taken at the Bank Branches were now charged a rate about ½ per cent higher than the minimum Bank rate in London, whereas before 1844 the rate had been the same at both places.⁴⁸ It also should be noted that the Bank during certain periods shortened the term of bills acceptable at the minimum rate, charging a higher rate for bills of ninety-five days. In Table 9 I have separated the total volume of bills discounted at the Bank into three groups: (a) bills discounted at the minimum rate; (b) at rates above the minimum by not more than ½ per cent; and (c) those discounted at rates more than ½ per cent above the minimum.⁴⁹

Let us turn to the contemporary views concerning the position of the Bank rate in relation to the market rate, bearing in mind that Bank rate usually refers to the minimum discount rate and that the market rate refers to the rate charged by the London discount houses. Gurney states that the money dealers generally change their rate when Bank rate changes, though there are times when they are not gov-

"The evidence on this point is not altogether consistent. Wylie, a trader in Liverpool, stated that shortly after the Branches were established a system was adopted of classifying paper as A1 and A2, charging about ¼ per cent higher for A2. The A2 firms, he stated, were just as good though not so well known as the A1 firms. After remonstrance with the Bank the rule was changed so as to charge all paper at the Branches a rate ½ per cent higher than the London rate. (Ev., H.L. 1848, qs. 2082-94.) Norman stated that the rate in 1848 was higher at the Branches and that such had always been the case (Ev., H.L. 1848, qs. 2795-96). James Lister, manager of the Union Bank in Liverpool, stated that the rate at the Liverpool Branch had been the same as the London rate until 1844, and that since then it had been ½ to 1 per cent higher (Ev., H.L. 1848, q. 2458). The data submitted by the Bank go back no further than 1839. They indicate that from 1839 to 1844 the rates at the Branches were the same as those at the Bank in London. After 1844 the rates in the country were generally higher than the minimum in London, but the differentials varied (Report, H.C. 1848, app. 15).

"The table has minor inaccuracies owing to the fact that the minimum rate charged during any week was calculated as if it prevailed during the entire week, though actually the rate was changed before the week ended—usually on a Thursday and on a few occasions before Thursday. Thus the amounts discounted at rates higher than the minimum rate are a little overstated.

⁴⁷ From September 1, 1853, to February 4, 1858 Bank rate was less than 4 per cent for only three months.

erned by Bank rate. When the exchange is unfavorable and there is a pressure on the money market the money dealers charge a higher rate than the Bank. From October to December, 1846, for example, the market rate was 3 to 3¼, whereas Bank rate was 3 per cent. On the other hand, when there is no pressure the money dealers charge a lower rate than the Bank.⁵⁰ Palmer likewise holds that when the exchange is favorable and currency is increasing the market rate is below Bank rate; and that when the currency is contracted by the export of bullion the market rate is above.⁵¹ Morris says that the market rate is lower when money is very abundant, and the same or higher when money is dear.⁵² He denies that the Bank put the minimum rate down to the market in 1844. When Bank rate was 2½ per cent the market discount rate was 2 and loans at call 1¾ to 1⅞ per cent.⁵³ Cotton also denies that the Bank led the market in 1844.⁵⁴

The best explanation of the relative positions of the rates was given in 1857 by Chapman. Practically, he stated, the Bank rate was a sort of maximum to the private rate; his own rate had more frequently been below Bank rate than above. He would not go below Bank rate if he could get bills at that rate. But if he found that he had large sums unemployed in consequence of the public's preferring the courtesies of the Bank,⁵⁵ he would be obliged to cut a little under Bank rate. For example, on April 22, 1852 the Bank reduced its rate to 2 per cent, where his rate had been for about two months. He was then obliged to go to 1⅞ per cent and finally to 1¾, as he could not afford to be without bills.⁵⁶ On the other hand, if the demand for money was so considerable

as to drive him to take money from the Bank, he would check it by charging a higher rate. He did not like to get a profit by his transactions with the Bank. He would not solicit business that would drive him to the Bank.

TABLE 9
DISTRIBUTION OF THE VOLUME OF DISCOUNTING ACCORD-
ING TO CERTAIN CLASSES OF RATES
CHARGED BY THE BANK *

Year	Discounts at the minimum rate	Discounts at rates above the minimum by not more than ½ per cent	Discounts at rates more than ½ per cent above the minimum	Total
<i>Amounts (ooo omitted)</i>				
1844	£ 2,298	£ 338	£ 8	£ 2,643
1845	15,959	1,743	836	18,539
1846	28,057	4,789	1,408	34,254
1847	19,556	8,483	10,356	38,395
1848	4,123	3,399	1,314	8,836
1849	2,747	1,032	727	4,506
1850	5,657	1,702	121	7,480
1851	13,269	1,832	183	15,284
1852	6,359	1,353	50	7,762
1853	23,704	2,128	93	25,925
1854	20,321	1,357	9	21,687
1855	19,957	1,395	785	22,137
1856	26,144	2,844	1,936	30,925
1857	43,902	1,852	3,392	49,146
<i>Percentages</i>				
1844	86.9	12.8	0.3	100
1845	86.1	9.4	4.5	100
1846	81.9	14.0	4.1	100
1847	50.9	22.1	27.0	100
1848	46.7	38.4	14.9	100
1849	61.0	22.9	16.1	100
1850	75.6	22.8	1.6	100
1851	86.8	12.0	1.2	100
1852	81.9	17.5	0.6	100
1853	91.4	8.2	0.4	100
1854	93.7	6.26	0.04	100
1855	90.2	6.3	3.5	100
1856	84.5	9.2	6.3	100
1857	89.5	3.6	6.9	100

* Source: Report, 1857, app. 6 and 7; Report, 1858, app. 4.

However, he thought it his natural business to go there when the public money was accumulating. Somebody had to supply the vacuum. (Chapman referred here of course to the quarterly advances to the market accompanying the absorption of funds by the Treasury.) He could not long carry on his business with money borrowed from the Bank, because he

⁵⁰ Ev., H.L. 1848, qs. 1105-11; Report, H.L. 1848, app. C.

⁵¹ Ev., H.L. 1848, q. 932. Palmer probably meant pressure from any source.

⁵² Ev., H.L. 1848, q. 627.

⁵³ Ev., H.C. 1848, q. 3330. As we shall see, however, Morris defends the Bank for competing for the discount business.

⁵⁴ Ev., H.L. 1848, q. 3301.

⁵⁵ Glyn believed that if the Bank charged the same rate as the brokers the public would prefer the Bank on account of the greater secrecy. The brokers parted with their bills to the private bankers. (Ev., H.L. 1848, qs. 1685-86.)

⁵⁶ Hubbard claimed that Lombard Street went to 1¾ before the Bank went to 2 per cent (Ev., 1857, q. 2369).

would then charge a higher rate than Bank rate, which would throw off a great number of bills to the Bank.⁵⁷

Hubbard, viewing the matter from the standpoint of the Bank directors, states that the Bank does not go as high as its "competitors" when money is scarce, or as low when money is plentiful. It has private customers who are dependent upon it for accommodation and it can not without injustice refuse to lend to them at the current rate. But it does not take the lead in varying the rate. The Bank, for instance, did not lower the rate in 1852 to 2 per cent until the rate in Lombard Street went to 1½. Nor does the Bank raise the rate until the increased demands upon it render it necessary to take such a step in keeping with the value of money out of doors.⁵⁸

Weguelin states that "we never lead the way in the rate of interest." The rule is in "some degree" to follow the market. If the market went to 2 per cent the Bank would reduce to 2½ per cent. The competition of the Bank has not been very great in the discount market.⁵⁹ He assents, however, to Hankey's statement that there is a resolution of the Court to the effect that Bank rate shall be kept approximately at the market rate.⁶⁰ In saying that the Bank does not "take the lead," Hubbard and Weguelin appear to mean that it does not compete for bills except from its private customers when money is cheap, and that it allows bills to increase when money is scarce, not attempting at such times to keep above the market.

The examination of rate relationships throws some light on the extent to which the Bank discounted for traders as against bill brokers. It is evident that when the market rate was slightly under Bank rate the bill brokers were not discounting at the Bank. On the other hand, when the brokers were driven to discount at the Bank they charged a higher rate than

Bank rate. As Chapman pointed out, such a rate relationship would cause traders with discount accounts to go to the Bank.⁶¹ He might have added that the London banks also would drive a certain portion of their customers to the Bank when there was a credit shortage; though at the same time they would supply call money — within limits — to the bill brokers at a lower rate than the market bill rate, since they considered money placed with the brokers as part of their reserve. Weguelin, however, stated that the larger portion of the Bank's discounts came through the bill brokers.⁶² This statement is entitled to weight but it is not conclusive as regards an extended period. During a large part of Weguelin's term as Governor the market rate was as high as Bank rate, or higher. It is possible that the limitation of the term of bills in 1855 and 1856 discriminated in favor of the bill brokers, who would have relatively large amounts of bills with sixty days to run. During the last quarter of 1857 discounts for traders greatly predominated. In the period after 1857 there is further evidence that the Bank supplied funds more largely through traders. The Bank discontinued discounting for brokers altogether, giving them only advances. Nevertheless discounts continued during the next fifteen years very much greater than advances.

3. Which Controls the Other, Bank Rate or Market Rate?

Morris states that the Bank, since it has only a certain reserve to deal with, can never keep interest rates unnaturally low for any length of time.⁶³ Cotton states similarly that the rate is regulated by the general rate all over the world. If the Bank were to keep the rate unnaturally low the pressure on it would soon become so great as to require it to raise the rate. If it were to keep the rate unnaturally high it would lose its discounts and cause an influx of bullion.⁶⁴ Loyd says that, if circumstances occur naturally producing violent fluctuations in the rate, the Bank must conform. Of course if the Bank were to lend at 3 per cent when the

⁵⁷ Ev., 1857, qs. 4864-74, 4913, 5087-95. The bill brokers not only charged a higher rate than the Bank in periods of pressure; according to Palmer they sometimes added a commission of ½ to 1 per cent flat on bills (Ev., H.L. 1848, qs. 764-765). William Brown stated that the commissions added in 1847 often brought the true rate to 20 or 30 per cent per annum (*ibid.*, q. 2308).

⁵⁸ Ev., 1857, qs. 2365-78, 2844.

⁵⁹ Ev., 1857, qs. 250, 270.

⁶⁰ Ev., 1857, q. 1259.

⁶¹ Ev., 1857, q. 4864.

⁶² Ev., 1857, q. 315.

⁶³ Ev., H.C. 1848, q. 3420.

⁶⁴ Ev., H.L. 1848, qs. 3213-19.

market rate was 4, the market would be depressed temporarily, but it could not long satisfy the demands upon it at such a rate. "As long as the Bank fairly employs the Means at its Command, the Bank has no Power of regulating the Rate of Interest."⁶⁵ The words "fairly employs" seem to refer to the standards of good private banking. Thus the Bank in this view is only a very small influence in the gold standard world, and the extent of its influence is measured by its ability to absorb or release gold.

Glyn, when asked if the Bank "commands" or "follows" the market, states that, when the discounts of the bankers and brokers are limited, the demand falls upon the Bank and it then commands the market.⁶⁶ Palmer goes further. Discussing the policy of 1844, he states that reducing Bank rate to 2½ per cent could not fail to reduce the rate throughout the country. The rate in London went below that, it being always a necessary consequence, while the currency is increasing or stationary, that the money in the hands of money dealers must be employed at the best rate they can obtain before the Bank can find employment for its reserve.⁶⁷ Lister states that the bankers in Liverpool watch very closely what the Bank is doing and adjust their action accordingly. When they raise, we raise as high as they do or higher. An advance of Bank rate is a signal to the whole country to "look out." But in ordinary times the market rate in Liverpool is often under Bank rate.⁶⁸

Tooke states that, while the Bank can have no permanent influence on the rate, it can have a temporary influence which is very perceptible. This is shown by the anxiety manifested on the Stock Exchange and in Lombard Street to learn the rate fixed by the Bank each Thursday. At another point he states that no other bank can "produce so great a temporary effect on the Rate of Interest."⁶⁹

At the inquiry of 1857 Norman reaffirms the Currency School position that the Bank can not fix the rate but must conform to the rate out of

doors.⁷⁰ Loyd says that the "Bank of England have no more power of raising the rate of discount than you or I have; they must conform."⁷¹ Hildyard then asks him why he remonstrated with the Bank in 1847 for not raising the rate if the market rate was in no way dependent upon the Bank. Loyd replies that it was because the Bank's policy was reducing the reserve.⁷² Hubbard says, "I must confess my amazement at finding people censure or praise the Bank for making the rate of interest high or low, when the Bank has no possible power to make it the one or the other." The rate changes from causes which are in the hands of Providence. He admits, however, that the Bank can affect the rate during the accumulation of public money.⁷³

Weguelin concedes somewhat more. Though in general the Bank is obliged to follow the market, it has a power over the rate not possessed by others in the same degree when there is an export of "floating capital."⁷⁴ It may also exert a power over the rate during the accumulation of public deposits.⁷⁵ Chapman thinks Bank rate and market rate affect one another. The Bank has the power "very much" of regulating the rate when the public have recourse to it.⁷⁶

Gibbs, who was a director in 1857, later wrote that a Bank rate of 5 per cent when the market rate was 3½ to 4 per cent was not effective. But if much gold left, Bank rate would "become a real acting rate."⁷⁷

Thus the directors, though minimizing the extent of the Bank's responsibility for the market rate, admitted that they could govern the market during a drain or when from other circumstances the market was dependent upon the Bank. But as a matter of fact the banks were constantly dependent upon the Bank indirectly in some form for a margin of their reserves.

⁶⁵ Ev., 1857, qs. 2973, 2995.

⁶⁶ Ev., 1857, qs. 3800-08.

⁶⁷ Ev., 1857, q. 4065. See also Ev., H.C. 1848, qs. 5129-33.

⁶⁸ Ev., 1857, qs. 2365-68.

⁶⁹ Ev., 1857, qs. 1192-94.

⁷⁰ Ev., 1857, q. 251.

⁷¹ Ev., 1857, qs. 4839-40.

⁷² Letters of Price and Gibbs in Price's *Chapters on Practical Political Economy* (1878), pp. 493-495. Gibbs was Governor 1875-77.

⁷³ Ev., H.L. 1848, qs. 1634-38.

⁷⁴ Ev., H.L. 1848, qs. 1708-10.

⁷⁵ Ev., H.L. 1848, q. 917.

⁷⁶ Ev., H.L. 1848, qs. 2448-75.

⁷⁷ *History of Prices*, v, 556-557, 544-545.

4. *What Ought to be the Position of the Bank Rate in Relation to the Market Rate? Should the Bank Compete for Discounts?*

Morris holds that the Bank should follow the market rate. Formerly, he says, the Bank bought securities when the rate was above the market. The disadvantage of such procedure, he claims, was that the Bank had to sell securities when the rate was high in order to get notes to meet the demand for discounts. Then it had to buy them back when the rate was low, thus making a loss.⁷⁸ It was decided therefore that the Bank should keep a portion of its "deposits" employed in the discount of bills where the money would be constantly under control.⁷⁹ The expiration of bills brings in notes without excitement, whereas the sale of securities does not. If the Bank is to issue against discounts it must vary the rate in the same manner as the discount brokers, else it will accumulate notes at the expense of the public.⁸⁰ If it may not vary the rate as money dealers do it should relinquish discounting altogether. Perhaps this would cause less difficulty in managing the Bank; though there would remain this difficulty: if it were known that the Bank was buying securities, their market price would rise.⁸¹

I believe Morris's position was sound to this extent: if the Bank was to depend upon discount operations by themselves it could not be expected to have an arbitrary minimum below which it might not reduce the rate.⁸² Such a procedure would lead automatically to deflation at certain times. But the purpose for which he desired to vary the rate was for the most part

⁷⁸ The Bank did in fact sell securities during the crises of 1825, 1836-37, 1847, and 1857. (Most of the securities sold in 1839 were in a different category, since they were only temporarily transferred to the bankers as security for the loan from Paris and Hamburg.) The obvious answer to Morris's objection was that it was futile for the Bank to sell securities during a pressure, when their sale only increased the demand for discounts.

⁷⁹ Prescott, the Deputy Governor, also expressed a preference for bills as against stock so that the money would be constantly returning to the Bank.

⁸⁰ As noted in the previous section, Morris denied that the Bank actually had reduced the rate to the level in Lombard Street.

⁸¹ *Ev.*, H.C. 1848, qs. 2641, 3006, 3333-42, 3421-22.

⁸² Though it would not have to maintain close contact with the London market in order to obtain some discounts.

objectionable. He wanted the Bank to be able to increase its discounts for the sake of earnings when the reserve was large, and to decrease discounts as suited its own convenience when the reserve declined. In other words, he wanted the Bank to be operated in the same way as a private bank.

Norman (in 1848) defends the Bank's policy of competing more for bills. The aim in reducing the rate in 1844, he says, was to employ a larger portion of the Bank's funds in discounts. As the Banking Department was considered similar to any other bank, it seemed injudicious to maintain a regulation which prevented competition with the money dealers.⁸³ Cotton defends lending at the market on the ground that a rate higher than the market would cause the Bank to lose its discounts and would lead to an influx of bullion.⁸⁴

Palmer, on the other hand, considers that Bank rate should not be governed by the market rate. He favors the old procedure of maintaining a 4 per cent minimum and investing in government securities when discounts are low.⁸⁵ Gurney criticizes the Bank for making an "active canvass" for discounts since 1844; though he adds that competition from the Bank has been much less of late.⁸⁶ Even Loyd, who holds that the Bank should conform to the market rate and not attempt to regulate it, considers that the active employment of the Bank's funds has not been beneficial to the public; and he doubts whether the Bank should continue as a large discounting body. Considering the magnitude of its resources, its operations should be more subject to "fixed rules."⁸⁷

Tooke (in 1848) recommended that the Bank return to the 4 per cent minimum. His object was to accumulate reserve when the demand for discounts was small, and then to allow the reserve to diminish as the demand for discounts increased without hastening to raise the rate. His scheme did not preclude high rates, but he thought they would not ordinarily be necessary. Nor did his proposal preclude altogether open-market operations; though what he em-

⁸³ *Ev.*, H.L. 1848, qs. 2714-15.

⁸⁴ *Ev.*, H.L. 1848, q. 3214.

⁸⁵ *Ev.*, H.C. 1848, qs. 2102, 2206-22; H.L. 1848, q. 1010.

⁸⁶ *Ev.*, H.L. 1848, qs. 1174-82.

⁸⁷ *Ev.*, H.C. 1848, qs. 5189-92; H.L. 1848, qs. 1630-39.

phasized was the compensating variation of discounts and bullion.⁸⁸

At the inquiry into the Operation of the Bank Act in 1857 the question of rate policy was again carefully considered. Preliminary to the investigation Weguelin wrote to the Chancellor of the Exchequer that competition with the private bankers was "apt to produce an unwarranted inflation of credit." There is, however, a practical difficulty in fixing the rate materially above the rate out of doors. The Bank is under agreement to discount specified sums at a rate 1 per cent below Bank rate for certain bankers who have abandoned their circulation, and it would be inequitable to them to fix the rate at too high a level above the market. Nevertheless this leads to an unwholesome competition with the money dealers.⁸⁹

Despite the professed policy on the part of the Bank of not competing actively for discounts, Palmer criticized it for causing excessive variations in the market rate. It was beside the point for his argument to show that the Bank in periods of ease held a small amount of discounts and that the rate in Lombard Street was below Bank rate. For he insisted that the immediate effect of reducing Bank rate was *not* to increase the discounts in the Bank but to depress the market rate, forcing it even lower than Bank rate. Witness, he said, the periods 1844-45, 1848-49, 1850, and 1852.⁹⁰ Before criticizing this position let us consider Tooke's and Newmarch's proposal, which was essentially the same as Palmer's.

Tooke in a new volume (1857) again criticized the Bank for following the market rate down to low levels.⁹¹ He was not able to appear before the Select Committee in 1857, but New-

march spoke for them both. The latter advocated a return to the old rule of a 4 per cent minimum. The Bank could buy government securities or make advances against railway debentures with funds not used in the discount market. When Charles Wood tells him that the amount of discounts has not usually been increased by reducing Bank rate, he replies that that is why the rate should not be reduced.⁹² When the rate is reduced the market rate is reduced also, which leads to an extension of transactions and trade and generally to an outflow of gold. The Bank should not drive the rate lower than it would otherwise fall to.⁹³ He does not seem to see that the Bank can depress the market just as effectively by the purchase of securities as by reducing Bank discount rate.

Mill also accuses the Bank of having caused excessive variations in the market rate. The directors should not encourage speculation by lending large sums when the market rate is already low. At such times it is in the public interest for the reserve to accumulate. But he believes that no definite rule can be laid down that the rate should never be reduced below 4 per cent.⁹⁴

I think Palmer and Newmarch were mistaken in attributing the low market rates primarily to the low Bank rate. The large imports of gold, which raised the Bank's bullion holdings to approximately £16,000,000 in 1850 and to £22,000,000 in 1852, would have driven market rates down even if the Bank had retained its 4 per cent minimum rule. In 1843-44 the market rate went to 2 per cent while Bank rate remained at 4 per cent. I do not of course argue that, merely because the London market rate was lower than Bank rate, the low Bank rate contributed nothing to influence the market, for the Bank discounted a small amount in those years (1850 and 1852) for merchants and traders. Such credit of course contributed toward depressing the rate. But it was a minor factor in comparison with the increase of bullion holdings.

⁸⁸ He means, presumably, that the Bank depresses the market while at the same time failing in its main purpose of increasing its earning assets.

⁸⁹ Ev., 1857, qs. 1447-48, 1494, 1885-1900.

⁹⁰ Ev., 1857, qs. 2015, 2108, 2247-59.

⁸⁸ *History of Prices*, iv, 378-389.

⁸⁹ Letter to Lewis, Nov. 10, 1856, Report, 1857, app. 1. Feavearyear (*The Pound Sterling*, pp. 269-270) contrasts Weguelin's views in regard to the Bank's remaining out of the discount market with Palmer's. I believe that they held the same theory of the matter but that Weguelin, for the practical reasons he referred to, was more willing to make concessions.

⁹⁰ Memorandum to the Governor, Oct. 15, 1856 (which was forwarded to the Chancellor of the Exchequer), Report, 1857, app. 1. I have taken part of the supporting argument from Palmer's evidence in 1848. See particularly, Ev., H.L. 1848, q. 917. For his specific suggestion to return to the 4 per cent minimum, see Ev., H.C. 1848, q. 2102.

⁹¹ *History of Prices*, vol. v, pt. v, sections 15-20.

Those who proposed a 4 per cent minimum Bank rate were confusing two issues. Whether the Bank reduced its rate below 4 per cent or maintained a 4 per cent minimum and depressed the market by buying government securities was merely a matter of procedure. But evidently they did not mean to raise a question merely of technical procedure. They objected to the Bank's depressing the rate unduly by any method. Their real purpose was for the Bank to allow large variations in the bullion reserve without making undue efforts to check either the inflow or the outflow. I believe their criticism of the Bank for permitting excessive variations in the market rate was justified, but their plan really did not require a 4 per cent minimum Bank rate. They underestimated the extent to which the market rate was sensitive to bullion movements and security operations when discounts and advances were low to begin with. Further comment on their proposal will be given in the conclusion at the end of this chapter.

Hubbard was "amazed" that Newmarch's proposal should be made in the nineteenth century. "When all our barometers are screwed up to set fair, I think it will be quite time to have a fixed rate of interest of 4 per cent." The Act of 1844 released the Bank from the vain attempt to maintain a constant rate. When the rate went below 4 per cent the Bank would lose all of its discount business and probably lend more to railways and other corporations.⁹⁵

Hubbard's criticism went too far when it implied that Newmarch wanted a constant rate. Neither he nor Tooke suggested that the rate should not be advanced beyond 4 per cent.⁹⁶ They said that there would be fewer occasions on which it would be necessary to go above 4 per cent if credit expansion were not induced by rates lower than 4 per cent.

Loyd thought it "wholly unreasonable" not to reduce the rate below 4 per cent. The Bank would lose all of its discounts and then lend in other ways. Any other assumption, he states, presupposes that it would not employ its capital at all.⁹⁷ Loyd seems more willing for the Bank to compete actively for discounts than

nine years earlier. As he grew older he held more uncompromisingly the view that the Bank was like any other bank, and could therefore do no harm by competing for bills like other lenders.

Thomson Hankey, though writing at a later period, was Governor in 1851-53 and a member of the Select Committee in 1857. He favored altering Bank rate to the highest and to the lowest at which other capitalists were willing to discount bills. Otherwise a large amount could not be employed in discounts.⁹⁸

Norman opposed a 4 per cent minimum, but he did not think the Bank should carry on a "very active" competition with the money dealers.⁹⁹ Such was perhaps the more representative view in the Bank Parlour.

The problem of rate policy was not discussed simply as a problem of central banking technique, there being no general agreement that there was a central bank. The extreme supporters of the Act asserted *formally* that the Bank was free to compete like any other bank. But it will be noted that even in the case of Morris, Loyd, and Norman there were at one time or another modifying statements — either that the Bank did not actually compete much or that it ought not to compete actively. Because of the tendency for the discussion to take this tangent — whether the Bank had the same right to compete as any other bank — the criticisms of Palmer, Tooke, and Newmarch were not discussed altogether on their merits. However, those who opposed them correctly pointed out that they exaggerated the extent of the Bank's competition and the responsibility of the low Bank rate for the low market rates. Also, the defenders of existing procedure appeared to see that a correct Bank policy could not be prescribed simply by providing for a 4 per cent minimum rate combined with passivity in the face of gold movements.¹⁰⁰

⁹⁵ *The Principles of Banking* (1867), pp. 18-19. See also his examination of Newmarch, *Ev.*, 1857, qs. 1438-54.

⁹⁶ *Ev.*, 1857, q. 2978.

⁹⁷ It should be added in regard to Palmer, however, that he had followed no formula when he was Governor in 1830-33. In the autumn of 1832, for example, the Bank bought £2,000,000 of Exchequer bills, holding then over £5,000,000 of purchased bills. That is to say, his 4 per cent minimum was made less oppressive by means of open-market operations.

⁹⁸ *Ev.*, 1857, qs. 2370-74.

⁹⁹ Newmarch, *Ev.*, 1857, q. 1459.

¹⁰⁰ *Ev.*, 1857, qs. 3658-60.

Formally, no general agreement was reached even among the directors as to the extent to which the Bank might compete for discounts and the purpose for which it should acquire them. But during the period 1848 to 1858 there appears to have been a marked drift toward the view that the Bank ought not to compete "actively" for discounts and that it should acquire a large amount only for a public purpose and not for the sake of earnings.

5. *Other Limitations on Discounts Besides the Rate*

Morris states that some of the directors proposed raising the minimum Bank rate to 7 per cent on April 15, 1847, but that a majority favored as a substitute measure a limitation of the amounts to be discounted for individuals. Accordingly, parties (in London) were limited to the amounts they had already discounted. As a further restrictive measure the Bank refused to make advances on Exchequer bills. For a period of ten days the Liverpool agent was directed to limit total new discounts to one-half the amount of old bills running off.¹⁰¹ According to Tooke, differential discount rates also were used during the April panic. The Bank's notice (of April 15) did not follow the usual practice of giving the term of the bills, but it was found that the 5 per cent minimum "applied to bills having only a very few days to run" and that much higher rates were charged on bills of more than ten days to run.¹⁰²

The notices of August 2 and September 23 again gave preferential rates for short bills.¹⁰³ There was of course nothing to prevent the

Bank from discriminating in favor of short bills, whether the public notices provided for it or not. As to the limitation of the amounts for individual parties during the October panic, Morris states that, if an applicant wanted more than was thought usual on discount and at the same time the bill was not of a sufficient security independently of the applicant's name, he was refused. At another point he states that no good bill of ninety-five days or less to run was refused.¹⁰⁴ But as the total amount discounted was very much higher than usual, while at the same time the quality of the bills was very generally open to some question, the Bank no doubt had frequent occasion to give less accommodation than that applied for.¹⁰⁵ Such restrictions on discounts should be considered in connection with the fact that new temporary advances were refused after October 1, though advances previously made amounted to £4,544,000 on October 9.¹⁰⁶

But it should also be noted that the Bank relaxed its rules in making advances in emergency cases. During the period September 15 to November 15 it loaned against real estate, against debentures, and on the security of additional endorsements. It also agreed not to enforce payment on certain acceptances.¹⁰⁷

Palmer objects to limiting the amount of bills discounted for particular parties. Except during the April (1847) panic, such has not been the Bank's practice unless the demands for accommodation were extravagant. Where

¹⁰¹ Morris, Ev., H.C. 1848, qs. 2775-82, 3132-39.

¹⁰² Wylie and Lister stated that the Branch at Liverpool refused to discount on some days in September and October 1847 (Ev., H.L. 1848, qs. 2083, 2477-83).

¹⁰³ Morris, Ev., H.C. 1848, q. 2642. The dividend was payable October 13 and the following day temporary advances were reduced to £1,507,000. Though the dividend more than compensated the reduction in advances, the refusal to continue advances beyond the normal period was nevertheless a hardship in this instance.

¹⁰⁴ The total "extraordinary" aid was £2,300,000 (Morris, Ev., H.C. 1848, qs. 2645-48). The Bank made advances in rather unusual ways. It lent £300,000 in Consols to the Royal Bank of Liverpool (which failed during the panic) and £100,000 in Consols to another bank. The Consols were transferred to their names and sold for their account by the Bank of England broker. The banks were thus required to pay the rate for "continuation" loans in the open market. The position of Morris and Prescott was that the Bank would itself have had to sell the Consols if the advance had been made in cash. (Ev., H.C. 1848, qs. 3104-19.)

¹⁰⁵ Morris, Ev., H.C. 1848, qs. 2641, 2987, 3076-80. See also Cotton, Ev., H.L. 1848, qs. 3226-31. Cotton claims (q. 3251) that the Bank "refused discounting," i.e., limited amounts for parties in 1839. Palmer states that on the 10th or 12th of April, 1847 the Bank limited amounts discounted for some of the large mercantile houses (Ev., H.L. 1848, q. 802).

¹⁰⁶ *History of Prices*, IV, 304-305. Tooke states also that the Bank limited amounts for parties regardless of the quality of the bills or of the credit of the parties presenting them. The maximum Bank discount rate for April was 7 per cent. See Chart C, p. 134.

¹⁰⁷ *History of Prices*, V, 563. The notice of August 2 specified 5 per cent for one-month bills, 5½ for two-months bills, and 6 per cent for longer dates. The notice of September 23 provided 5½ for two-months bills and 6 per cent for three-months bills.

one has to choose between the two evils it is better to raise the rate.¹⁰⁸ Morris and Prescott are not in favor of limiting the term of eligible bills. Raising the rate distributes the pressure over a greater number of parties. When the Bank changes the term it presses hard on particular classes who happen to hold longer bills.¹⁰⁹ However, Morris and Prescott offer no objection to *discriminatory* rates in favor of short bills.¹¹⁰

Weguelin stated that the Bank limited the term of discounts and advances to the bill brokers to thirty days whenever it suited its convenience. In the case of other applicants the Bank had not refused bills of ninety-five days to run, though it had charged higher rates upon them than upon shorter bills.¹¹¹ The objection most generally raised by the members of the Select Committee was that such a procedure discriminated against trades which customarily used longer bills. It was pointed out that the mercantile business between the manufacturing towns and London was carried on "almost entirely" by means of three-months bills. Corn bills were also drawn for three months, while East India and China bills were generally drawn for six months. Weguelin replies that those who give long credit must be prepared to give it from their own resources and not those of their banker. More particularly, he believes that long bills are used to finance imports and that by making it difficult to finance long bills the Bank discourages imports, which is necessary to correct the exchange. As a matter of fact, however, exports also were financed with long bills.

Weguelin is then asked whether raising the rate would not produce the same general effect as limiting the character of bills. It is pointed out that short bills would find their way to the

Bank and that the funds would be used by the money dealers to buy long bills. He replies that raising the rate to 10, 11, or 12 per cent would produce the same effect as limiting the term. But there is an objection, he states, to raising the rate to such high levels. It affects a variety of interests which have no connection with the monetary difficulty—for example, it affects the rate on all mortgages more or less. Also an advance in Bank rate resulting in a higher yield on securities causes bank deposits to be drawn on heavily for investment in securities.¹¹²

Hankey asks him if his views are not those of a minority in the Court. Weguelin replies that opinion has varied.¹¹³ Neave, however, states that the Court looks principally to the rate. He believes that limiting the term produces its effect chiefly by raising the market rate.¹¹⁴

Hubbard thinks that limiting the term operates in a capricious manner, causing inconvenience to particular individuals or trades. It is always met by evasive means, parties with short bills going to the Bank and those with long bills going to the bill brokers. The desired purpose can be as easily and more certainly accomplished by raising the rate.¹¹⁵

The main question concerned the fluidity of credit. Weguelin believed that credit could be restricted at points where it would correct the exchange without creating equally great internal pressure. His critics reasoned that such discriminatory measures were effective only in so far as they created general pressure, and that they caused a hardship unnecessarily on particular parties.

6. *Can the Bank Control the Amount of its Securities?*

One of the reasons why Morris and Prescott wanted the Bank to invest largely in bills was to keep total securities more under control. They thought that the reserve would automati-

¹⁰⁸ Ev., H.L. 1848, qs. 895-896; H.C. 1848, q. 2027.

¹⁰⁹ This argument was an improvement over the stock phrase in 1832: that a higher rate affected those most able to bear it.

¹¹⁰ Ev., H.C. 1848, qs. 2766-71.

¹¹¹ After the panic of 1847 no differential rates were publicly announced until 1855. From October 18, 1855 to May 22, 1856, and again from October 6 to November 13, 1856, bills not exceeding sixty days to run were charged 6 per cent and bills from sixty-one to ninety-five days 7 per cent (Tooke, *History of Prices*, v, pp. 563-564; Weguelin, *Ev.*, 1857, q. 34).

¹¹² He overlooked the fact that the rate on deposits at the joint stock banks also varied with Bank rate. He also failed to take account of the increase in the demand for liquidity coming with an advance in Bank rate.

¹¹³ I have put various portions of Weguelin's evidence together (*Ev.*, 1857, qs. 34, 312-316, 326-327, 504-510, 547-565, 1261-66).

¹¹⁴ *Ev.*, 1857, q. 327.

¹¹⁵ *Ev.*, 1857, qs. 2569-77.

cally be increased by not replacing a certain amount of bills.¹¹⁶ The sale of securities also would bring in notes. Morris thought the Bank had drawn in notes that way in April, 1847 and that it could have sold an additional £2,000,000 of stock during the October panic if it had been necessary. He estimated that a million in notes would have thus been drawn in and another million paid for by reduction of deposits.¹¹⁷ Palmer did not believe the Bank could have sold £2,000,000 in securities during the panic.¹¹⁸ He believed that a high rate had little effect in preventing the growth of discounts during the panic, and that low rates during the period of monetary ease failed to accomplish the object of getting additional discounts to any extent.¹¹⁹ Gurney thought that rates of 8 and 10 per cent afforded some protection to the Bank, but that their effect upon the amount of discounts was much overrated.¹²⁰ In general, the defenders of the Bank Act during the inquiry of 1848 held that the Bank could control its securities, whereas those who opposed the Act held that it could not, particularly during a panic.

At the inquiry in 1857-58 the view that the Bank's control over its securities was very limited was coming more generally to be accepted, at least among those who had had experience in running the Bank. To summarize their position, it was held that securities tended to replace bullion withdrawals; that the sale of stock would cause an increase of discounts, particularly in periods of pressure; and that raising the rate would have no immediate perceptible effect in preventing the growth of discounts. Hubbard is asked if an increase of the Bank's advances causes bullion to go out. He replies that it is just the reverse, that the outflow of bullion leads to the increase of ad-

vances.¹²¹ Weguelin states that an increase of discounts roughly represents exports of gold. If the Bank compels the repayment of discounts — which he does not suppose it could do immediately — the merchants must bring home gold.¹²²

Hubbard holds that discounts increase as the result of the sale of securities. Therefore the rate must be raised at the same time in order to obtain proper results.¹²³ The rate is raised, however, not in order immediately to check the amount of accommodation, but to affect the value of securities and commercial credits and by such means to arrest the efflux of bullion.¹²⁴ While the increase of the rate has a tendency to arrest the growth of discounts — though not immediately — actually the amount of discounts is high when the rate is high, quite the opposite of the popular notion.¹²⁵

Weguelin holds that notes withdrawn from the stock market through the sale of securities "must be issued again to the discount market" provided the "capital" in the money market is only sufficient for the wants of the market. Such is the case during a drain. If the Bank had sold additional securities during the panic of 1847 discounts would only have replaced the securities sold. Such was the result during the drain of 1854-55.¹²⁶ Referring to the influence of the rate upon the amount of discounts in periods of ease, Weguelin holds that it is not possible for the Bank to employ all of its "deposits" when they are very large. The reserve is then large.¹²⁷ That is to say, the rate was not an effective means of changing discounts in either direction. Neave states that the sale of securities is useful in ordinary times in main-

¹¹⁶ Ev., 1857, qs. 2556, 2616, and 2684. He concedes that the result may be modified by the demand "with reference to internal purposes" (q. 2626).

¹¹⁷ Weguelin's examination of Hubbard, 1857, qs. 2559-64. See also qs. 269, 554.

¹¹⁸ Ev., 1857, q. 2768-72.

¹¹⁹ Ev., 1857, q. 2387.

¹²⁰ Questions 2376, 2759.

¹²¹ Questions 296-299, 525. The reason for selling securities and increasing bill holdings was to give the Bank a greater "power of action upon the adverse exchange" (q. 524).

¹²² Question 254. He was evidently thinking of large deposits connected with the inflow of bullion. In a period of pressure deposits were large because of the increased demand for reserve balances.

¹²³ Ev., H.C. 1848, qs. 2641, 3335.

¹²⁴ Ev., H.L. 1848, qs. 48-54, 212-220. See also Ev., H.C. 1848, qs. 2784-92. In April, 1847 the Bank sold £41,000 in Exchequer bills and in addition borrowed £1,275,000 on Consols; on October 22nd it sold £200,000 of Consols (Report, H.C. 1848, app. 34; Morris, Ev., H.C. 1848, q. 2641).

¹²⁵ Ev., H.C. 1848, q. 2129. Glyn thought that if such a sale had been accomplished it would only have caused further panic (Ev., H.L. 1848, q. 1866).

¹²⁶ Ev., H.C. 1848, q. 2008; H.L. 1848, qs. 731-740; memorandum to the Governor, Report, 1857, app. 1.

¹²⁷ Ev., H.L. 1848, q. 1311.

taining the proportion of reserve to liabilities, but not in times of panic. In 1857, as fast as the Bank sold securities the money went out in discounts. The reason for selling securities was to extend greater aid to commerce.¹²⁸

Bonamy Dobree, the Deputy Governor during the panic of 1857, held a view resembling more that of Morris. The Bank, he thought, could have prevented its reserve from falling after November 12 by selling stock, raising Bank rate to 12 per cent, reducing the term of bills to thirty days, and possibly refusing to discount for the bill brokers. And it would in all probability have done so, he believed, if the Government had not given "what was equal to a positive assurance" that they were prepared to issue the Letter.¹²⁹

Mill considered that a low Bank rate only *tended* to increase discounts, and that as a matter of fact discounts were high when the rate was high. That, he believed, was because discounts at the Bank were greatest when, in consequence of commercial distress, there was greatest difficulty in obtaining assistance from other quarters. However, he seemed to believe that the Bank could increase the reserve by selling securities.¹³⁰

Thus the weight of opinion among the directors was that the Bank was quite limited in adjusting its securities at any predetermined level. As long as the discount was open the market would take what it required in a period of pressure, the Bank's influence being limited to determining the effective rate. They also saw that in a period of relaxation a low rate would have little effect in influencing immediately the growth of discounts.

7. Criteria of Discount Policy

Motives for changing the rate unrelated to the requirements of the gold standard were

¹²⁸ Ev., 1858, qs. 340-356, 408-409. The Bank sold securities as follows:

	<i>Exchequer bills</i>	<i>Stock</i>
Week ending Nov. 7 .....	...	£ 350,000
Week ending Nov. 14	£ 40,500	730,000
Week ending Nov. 21	143,100	1,270,000
Week ending Nov. 28	42,900	200,000
Week ending Dec. 5 .....	...	400,000

(The Treasury Letter was issued November 14.)

See Chapter VII for earlier opinion on the question whether an increase of discounts offset by a reduction of government securities gave any real aid to commerce.

¹²⁹ Ev., 1858, q. 841.

¹³⁰ Ev., 1857, qs. 2148-52.

given little consideration by the Committees in 1848 and in 1857-58, though they did hear some evidence asking for the outright abandonment of the gold standard.¹³¹ Norman admitted that the reduction of the rate in 1844 in the attempt to increase the Bank's discounts was connected to some extent with the desire to increase the Bank's profits.¹³² Morris states that some of the directors wanted to postpone raising Bank rate in April, 1847 until after the government loan was negotiated.¹³³ At another point Morris is asked if it is safe in the existing state of Europe (1848) to thwart the revival of employment. Does not an increase of the rate place obstructions in the way of production? He brushes the question aside with the statement that restrictive measures are necessary if bullion is leaving or convertibility is endangered.¹³⁴

Morris states that the Bank should fix the rate with reference to the market. But his further explanation shows that the condition of the reserve is the final test he has in mind. It is to that criterion that he constantly refers when explaining specific rate changes.¹³⁵ Weguelin is asked: "Now, in point of fact, is it the demand for money in the market, or the state of the bullion in the issue department, that governs your action with regard to either raising or lowering the rate of discount?" He replies that it is the state of the reserve, which is governed by the demand for money in the market.¹³⁶ At another point he says that the reserve is "the guiding rule of their action." The reserve fluctuates from a fourth to a third of total deposits and even goes to one half or even higher in times of abundance. It ought to be at least a fourth.¹³⁷ That the final test was the state of the reserve was agreed to by all parties ¹³⁸ —

¹³¹ See Chapter XIV, "Theories of International Monetary Equilibrium."

¹³² Ev., H.L. 1848, qs. 2714-16.

¹³³ Ev., H.C. 1848, q. 2665.

¹³⁴ Ev., H.C. 1848, qs. 3442-45, 3328.

¹³⁵ Ev., H.C. 1848, qs. 2641-42, 2651-53; H.L. 1848, qs. 488-493.

¹³⁶ Ev., 1857, q. 1257.

¹³⁷ Ev., 1857, qs. 236, 259, 278, 291.

¹³⁸ The *Economist*, for example, in discussing "The Reduction of the Bank Rate of Interest" (August 5, 1854) recommends that the Bank follow the rule of fixing the rate according to the "supply and demand"; that is, according to the amount of reserve on one hand and the demand for

except those who favored abandonment of the gold standard.

But, just as in the 'twenties it was found that "conducting the affairs of the Bank with respect to the exchange" was nothing more than a question-begging formula, it was found in the middle of the century that fixing the rate "with reference to the state of the reserve" left everything save the maintenance of gold payments yet to be determined. In a sense, the controversy over rate policy continued the controversy over the Currency Principle. But the adherents to that doctrine were more anxious to defend it formally than they were to attempt to put it into practice. Tooke and Palmer had a great deal to complain of regarding the professed doctrines of such governors as Morris, Prescott, Hankey, and Dobree, since the latter formally maintained that the Bank should fix the rate with reference to the reserve in the same way as a private bank. But they had less to complain of regarding the Bank's actual policies. Nevertheless their criticism was justified that the Bank varied the rate too often and to too great an extent and that it was unwilling to see as large variations in the reserve as it should have been.

Charles Jellico in a paper in 1856 proposed that Bank rate should vary as a function of the reserve according to some mathematical formula.¹³⁹ The public, he believed, would then know what to expect and would in a measure anticipate the rates to be required of them for advances. There was reason to believe that less disturbance would arise from any demand for gold and that violent expansions and contractions of the currency would cease. Jellico's paper showed no real grasp of Bank transactions and methods of procedure. The Bank, he thought, exercised for the most part a passive influence in the monetary world, the extent of its influence depending upon the "greater or less degree of facility" it yielded to "pressure from without."

money on the other. In the present instance, the author says, as indeed in all others of late, the Bank seems to be governed by this rule only.

¹³⁹ "The Bank of England; its Present Constitution and Operations," *Journal of the Statistical Society*, vol. XIX (1856).

The following year Chapman proposed that a sliding scale of rates in relation to the reserve be determined by legislative enactment. He would not interfere so long as the reserve was above £10,000,000. When it fell to £10,000,000 the rate should be 5 per cent, and for every further £500,000 decline in the reserve the rate should be raised $\frac{1}{2}$ per cent. While the Bank, he states, is managed in a general way upon such a principle, it makes a great deal of difference whether it proceeds according to a definite rule or whether the rate is subject to uncertainty. The suffering from the tremendous fluctuations in the rate has been very considerable. His plan would provide also for exceeding the existing limit for notes issued against securities. High rates would guard against abusing the privilege. Gladstone suggests that such a plan really comes to the same thing as the Treasury Letter. Chapman replies that under his plan the pressure would never go so far.¹⁴⁰

Hubbard believes that the variation of the circulation with the public destroys the applicability of such a system. Besides, there are the periodical disturbances consequent upon the action of the revenue and the payment of the dividend which few outside the Bank understand. Then there are occasional accessions of special deposits. The Bank, it is true, is bound to watch the reserve, but "it requires considerable experience and sound judgment to combine with the consideration of those facts, that of many exceptional and special circumstances by which they are accompanied."¹⁴¹ Weguelin also holds that the Bank must be left with discretion as to how high to raise the rate in order to correct the exchange.¹⁴²

Twenty years later Gibbs states what was probably the prevailing view in the Court. The Bank regulates the rate by the reserve in the long run but not by every minor movement of the reserve. It must forecast probable gold movements. It must consider the character of the deposits and the mood of the depositors, the state of trade, harvests, home and foreign politics, markets for produce, the exchanges, and

¹⁴⁰ Ev., 1857, qs. 4987-5013.

¹⁴¹ Ev., 1857, qs. 2848-51.

¹⁴² Ev., 1857, qs. 309-310, 320-322.

any other condition which might have a bearing upon the demand for gold.¹⁴⁸

Thus it was not settled as to precisely how the Bank should regulate the rate with reference to the reserve. Bank policy continued to be empirical.

8. Conclusion

The most important problem of discount policy as viewed by contemporary observers was to what extent the Bank should compete with the market. There was a confusion of two issues here. The critics of the Bank management considered that reducing the rate to a point near the market rate was evidence that the Bank was encouraging undue expansion. This was not necessarily true. The Bank in any case was responsible for the terms of credit in the market, and whether it encouraged undue expansion was not to be judged by the differential between Bank rate and the market rate. The real significance of the change in policy after 1844 was that the Bank in periods of easy credit was in a position to take a somewhat better grade of bills (from the market standpoint) than before, though first class bills continued to go to the market except when there was a general credit shortage. In other words, the Bank changed to some extent the channel through which it permitted the banks to adjust their reserve position.

The Governor of the Bank and others among the directors in 1848 held that the Bank could control discounts by means of the rate. But by 1858 they were convinced that this was not possible. They realized that the sale of securities, the export of gold, and the increase in the demand of the London banks for reserve deposits would result in increased discounting regardless of the rate. What the market required at any given time it would have, and the Bank could not refuse without causing panic. All the Bank could hope to do was to cause such an advance of rates in the market as would check the drain by reducing the values of commodities and securities.

Thus the wide variations in Bank rate after 1847 were intended to control gold movements. The directors continued to have great confi-

dence in the efficacy of the rate for this purpose. The influence of the Currency School was exerted toward making the rate extremely sensitive to gold movements. Though their plan for Bank reform had failed to accomplish what they sought, they did not give up their idea of adjusting the currency automatically to the international standard.

I agree with Tooke and Palmer that the Bank varied the rate unduly in response to gold movements, and that it should have been willing to see greater variations in the reserve. Nevertheless their argument is open to criticism. In the first place, there was no necessary connection between the Bank's lending under 4 per cent and depressing the market rate unduly. Before 1844 the market rate had frequently gone to very low levels as the result of gold movements, security operations, and the release of Bank funds through other channels, including the discount of second grade paper at 4 per cent. Since their plan included the purchase of securities when there was little demand for discounts, it is evident that the market rate would have been depressed below 4 per cent. It seems probable, however, that they did not intend such a result.

But the broader question arises whether it was desirable for the Bank to maintain relatively high rates with the idea of accumulating a large reserve. Under some circumstances such a policy would have initiated a world-wide deflation. After 1850 there was less danger of this sort, but I am inclined to believe that if the Bank had pursued a policy in the 'thirties and 'forties of accumulating a much larger reserve it would have proved disastrous. The directors showed a sounder grasp of the problem in taking advantage of every opportunity to revive trade activity. Much of the criticism of the Bank's reducing the rate to a low level was based upon the preconception that a low rate would naturally be followed by a drain. Once we realize that the demand for gold abroad was adventitious this argument falls to the ground.

Much of the Bank directors' discussion in 1857-58 compares favorably with or is superior to discussion of central banking policy in the United States up to, say, 1924. They understood that the Bank could not control directly

¹⁴⁸ Letter to Bonamy Price, in Price's *Chapters on Practical Political Economy*, p. 551.

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either the volume of cash or the amount of its securities. Moreover, they did not consider the control of the volume of discounting as an end in itself, as some of our Reserve officials did in 1920. Their aim was to produce such internal economic adjustments as (in their opinion) were required by the international standard. They made some slight attempts at controlling the uses of credit, by discriminating against

certain classes of bills, but the weight of opinion in the Court was against such attempts. They preferred general pressure, believing that other methods were really effective only in so far as they produced general pressure. There was a simplicity in their approach to their problem that we do not find in the policies of the Federal Reserve System. As to whether this was a virtue, modern opinions would differ.

THEORIES OF INTERNATIONAL MONETARY EQUILIBRIUM

THE discussion in this chapter centers about the presuppositions concerning the international standard. We shall begin by considering the further developments in the theory that Bank rate, acting through market rates, could control international capital movements. We shall then consider the theories of the central reserve. The main question concerning the reserve was to what extent it was necessary for the Bank to absorb the shock of gold movements by maintaining an exchange defense fund. It was realized that for it to do so involved a certain degree of discretionary control over internal credit. A question of the criteria of control was also involved: whether restriction was indicated only by the circulation or by the amount of discounts at the Bank and by money rates.

I have tried to summarize the fundamental assumptions concerning the gold standard, and have given my criticism of these assumptions. I have taken the position that the credit systems of other countries were responsive to credit conditions in London, but that foreign banks adjusted their bullion reserves to what they considered to be their requirements. The Bank of England, on the other hand, was not in a position to regulate its bullion holdings, though it had some influence upon the foreign demand for gold. It could not compete with foreign countries for gold, for as the Bank of last resort for gold it had to pay out what was demanded and was limited in the restrictive action it could take without destroying the system. Bank procedure, therefore, instead of being a more or less passive adjustment to external conditions, as was supposed in contemporary theory, was a set of expedients for managing the international standard.

1. *The Discount Rate and International Capital Movements*

The theory that the Bank could influence the international flow of capital was understood

much earlier than modern writers generally have supposed.¹ As we have seen, it was explained at the inquiries of 1819 and 1832. However, it did not become very generally current until about 1840. During the discussions following the panic of 1847 the matter was referred to so frequently by the Bank directors and by others that one may suppose that the attraction of foreign capital, or the recall of British capital, had become an important objective in raising Bank rate before that time.

Morris, after giving the general view that the high rate of interest "had the effect of bringing capital into this country," stated that money had come to London from Russia to earn 8 per cent in 1847 and that gold had been imported in consequence.² Cotton pointed out that the rate did not tend to be equal the world over. Still, he said, "if it was higher than ordinary in one Country and lower than ordinary in another, it would cause an Influx of the precious Metals from the Country where it was lowest to that where it was highest." He was of the opinion that the relatively low rate in France in 1847 had "tended to an Influx of the precious Metals and of Capital from France to England."³ This general view was stated also by Tooke, Palmer, Mill, Wilson,⁴ Milner,⁵ and others at this time.⁶

¹ Cf. Keynes, *Treatise on Money*, vol. 1, p. 189. Angell, *Theory of International Prices*, pp. 138-139.

² Ev., H.C. 1848, qs. 2746, 2671, 2816, 2840.

³ Ev., H.L. 1848, qs. 3237-41.

⁴ *Capital, Currency, and Banking* (1847), pp. 21-22. On the effect of lower prices, Wilson states that, while they would ultimately tend to correct the exchange, the intense contraction required by the Bank Act would cause foreigners to anticipate a further fall and hold off buying (pp. 93-95).

⁵ *Regulation of Floating Capital* (1848), pp. 98-99.

⁶ The Prime Minister, in a letter to the Chancellor of the Exchequer, August 18, 1847, stated that the only effect of checking railway speculations when interest rates were low would be to cause the transfer abroad of working capital that was seeking higher profits. Though this statement does not deal directly with the control of gold movements by

Tooke at times held that the rate acted almost exclusively through its influence on capital movements. He told the Commons Committee in 1848 that the rate acted upon the international flow of goods only to a "trifling degree, if at all." At other points, however, he agreed that a high rate encouraged exports, though without reference to prices necessarily.⁷ As we have seen, he maintained formally, though with many concessions damaging to his argument, that prices were not controlled by money rates. Palmer stated at one point that a higher rate in England than on the Continent was the "only mode" of correcting the exchanges. But he later added that the high rate would reduce imports of commodities as well as cause the return of English capital.⁸ Mill in his *Principles* stated that "it is a fact now beginning to be recognised, that the passage of the precious metals from country to country is determined much more than was formerly supposed by the state of the loan market in different countries, and much less by the state of prices."⁹

Thus we can say that by 1848 there was a widely held belief that a change in Bank rate corrected the exchanges through its effect upon the rate of foreign lending as well as upon the international trade balance, and that the immediate effect was largely through the former route. But, so far, there was little discussion, at least in public, of the actual business practices concerned, and there was little criticism of the theory. In 1857 and 1858, however, there was much more discussion of the details of the transfer of capital from one market to another, and at the same time some were beginning to doubt whether the transfer was as sensitive to money rates as had been supposed.

Hubbard takes the extreme position that a change of the rate operates entirely through its effect upon the prices of interest-bearing securi-

ties. Bullion movements and the consequent changes in the rate of interest have no effect whatever upon commodity prices. There are great quantities of European securities, he states, which have a market in various centers. If they fall as much as 1 or 2 per cent in one market they will be transferred to other markets where their value has not been impaired. Weguelin raises the point with him that a high discount rate is not always accompanied by low prices of securities. Hubbard replies that circumstances sometimes qualify the operation of the rule but that the tendency is for the securities to be depressed. Such was the case, he thinks, in 1847. Moreover, a few of the large holders of commercial bills are also holders of foreign securities, and in periods of high rates they would sell these securities and invest in bills at home.¹⁰

Mill is taken more severely to task by Weguelin. The latter reminds Mill that besides comparing discount rates in Paris and London one must take account of the possible exchange loss before shifting his capital from one market to the other. (He has previously pointed out that a difference between a discount rate of 8 per cent and one of 6 per cent amounts to only 12 centimes on a three-months bill on the exchange between London and Paris. This, he has said, is not an infrequent variation on a single day).¹¹ Mill then argues that the high discount rate attracts investment in funded securities. He will not say unequivocally that foreign capitalists would be attracted by the high discount rate as such, but he believes that the high discount rate and the low prices of securities "always come together." Weguelin then attacks his position that the discount rate affects the price of government securities. "The price of consols is now 94, and the rate of discount is 6 per cent. Is there any relation between those two rates that you can trace?" Mill replies that Exchequer bills are more sensitive than consols to the discount rate, since consols are more largely in the hands of persons who keep them simply for their income, whereas Exchequer bills are held more largely by bankers. However, he believes that the prices of securities generally would be affected by an

the Bank, it illustrates the prevailing belief that English capital was very sensitive to the relative rate of earnings abroad. See *The Later Correspondence of Lord John Russell, 1840-1878*, edited by G. P. Gooch (1925), vol. 1, p. 182. (Russell proposed to check railway speculation by restricting the authorizations for new mileage, now that rates were high.)

⁷ Ev., H.C. 1848, qs. 5449-50; H.L. 1848, q. 3107.

⁸ Ev., H.C. 1848, qs. 2034, 2109; H.L. 1848, qs. 1027-28.

⁹ Ashley ed., p. 497.

¹⁰ Ev., 1857, qs. 2400-06, 2545-66, 2819-37.

¹¹ Ev., 1857, q. 310.

increase of the discount rate, at least such an increase as occurs in times of commercial difficulty. Foreigners then would buy railway shares, for example, in London, or English holders of foreign railway shares would sell them abroad. He admits that when securities fall in London they fall also on the Continent, but not in the same degree. The fall is greatest where the cause of it originates; and when the cause is a drain of bullion from England it is natural to suppose that the fall will be greatest there. There is a large and rich class of bankers and dealers who "are always on the look out to buy securities which are likely to rise; therefore if securities have fallen in one country from circumstances leading to an export of bullion, while in other countries bullion is coming in, the place for them to buy securities will be the country which is sending bullion away."¹² Thus Mill supposes that it is mainly through the securities market rather than the discount market that the transfer of capital takes place.

Weguelin contends that raising the discount rate has little effect on the international flow of capital, either through the discount market or through the securities market. He believes that it is necessary to restrict the amount of import bills drawn, which he thinks can not be done so well by raising the discount rate as by limiting the term of bills discountable at the Bank.¹³ Weguelin's reasoning is not altogether clear, since exports to the Orient as well as imports were financed with long bills. Moreover, as Hubbard points out, if the Bank refused to take long bills, these would go to the bill brokers at a higher rate and short bills would go to the Bank. While Weguelin makes some telling criticisms of the view that an increase of the rate can be depended upon to attract foreign capital, his own view that limiting the term of bills causes a more favorable balance on commercial account does not seem very convincing.

The best discussion of the problem is given by Chapman. Money does not move easily from one discount market to another, he states, except where the house has partners in the different centers and carries on such business

without (extra) expense. For a house such as Overend, Gurney, and Company it would not be a commercial operation worth following. He agrees, however, that a change in the discount rate in London would affect the foreign demand for commercial credit, and that bills on London held abroad might be sent for discount somewhat earlier or later depending upon the rate. If a trader in Hamburg, for instance, were charged $7\frac{1}{2}$ per cent there and only $5\frac{1}{2}$ per cent in London, he would discount in London so long as he had bills of a commercial character to send. But it is impossible, he adds, for the London rate to be dressed to the rate on the Continent. The practical working of the principle is to "defend ourselves" if bullion is going out by making it more difficult to obtain money.

Regarding the effect of the rate upon the sale of securities abroad, he says that when securities are low in London there is not at all a disposition on the part of foreigners to buy them. But he agrees that a credit restriction would affect new foreign issues in London. If bullion were leaving the country in large amounts, foreign loans would not be considered. On the whole, his position seems to be that capital movements, while not very sensitive to the rate in many particular instances, are sufficiently sensitive in general to make practicable the defense of the gold reserve by such means.¹⁴ As we shall see, however, he was not so firmly convinced as many others that the suspension of gold payments could under all circumstances be avoided.

The *Economist* frequently expressed the view that an increase of Bank rate tended to attract foreign capital. The explanations of the process, however, were not always clear. They seemed to presuppose that the person desiring the loan was concerned to have gold from abroad. At one point, for instance, it is supposed that there is not a sufficient amount of London bills in Paris to "satisfy the wants which they may have for importing gold." The writer then states that the borrowers obtain credit in London to rectify this shortage of London bills and import the gold.¹⁵ The articles do not show an intimate

¹² *Ev.*, 1857, qs. 2163-84.

¹³ *Ev.*, 1857, qs. 310-311, 504-510, 556-560, 1212-16. See also his letter to Lewis, Report, 1857, app. 1.

¹⁴ *Ev.*, 1857, qs. 5046-85.

¹⁵ "The Stringent Terms of the Bank," April 11, 1857. In a later article it is stated that the main question determin-

knowledge of the subject, such as was displayed by Chapman and Weguelin.

One article in the *Economist* put forth the view that the Bank could accomplish its purpose by discriminating against paper which might be used to finance the export of bullion. It commended the Bank for charging a higher rate for advances against stock than for bills. Inland bills at least, the writer claimed, might be safely discounted, because they were for internal purposes.¹⁶ The answer to this sort of argument was given the same year by Hubbard and others, who pointed out that a discrimination by the Bank did not insure that the market would make the same discrimination.

Thus by 1847 the theory was widely held that the rate of foreign lending could be effectively controlled through money rates. For the most part criticisms concerned special applications of the theory rather than its general validity. Weguelin's position was an outstanding exception. And even in his case, it is important to note, the Bank was assumed to have a workable procedure for controlling gold movements by restricting the amount of import bills drawn. Undoubtedly the belief that the Bank could influence international capital movements strengthened the belief that the gold standard operated nearly automatically.

2. Theories of the Central Reserve

The theories of the central reserve may be broadly distinguished according to whether they emphasized the object (a) of maintaining external liquidity or (b) of compelling a correct behavior on the part of the banking system and the trading community.

(a) According to the first view the exchanges did not respond quickly enough to obviate the necessity of large international payments in bullion from time to time. A large reserve, considered essentially as an exchange defense fund, was therefore needed. The bullion should be made available for this purpose and not

earmarked for redeeming the internal circulation. The reserves of the private and joint stock banks were practically not available for meeting a foreign drain, as they were needed for internal liquidity. A drain therefore fell upon the Bank.

In the management of the internal circulation or credit it was held that the Bank should be left with a wide discretion, though charged with the responsibility of maintaining gold payments. If there was no external drain there would need be no internal pressure, and even when there was an external drain there should be no attempt to reduce the internal circulation arbitrarily. Particularly after the panic of 1847, the level of the rate rather than the level of the internal circulation came to be considered the proper criterion of the amount of pressure requisite for protecting the exchange. As Palmer stated, attempting to reduce the circulation was what caused the mischief.¹⁷

(b) The second view, which emphasized the need for a device for compelling a proper behavior on the part of the banking system and trading community, was the view of the Currency School. They started with the supposition that international markets for goods and securities were sufficiently stable so that a trader could always convert his wealth into bullion in the world market without making an unbearable sacrifice. In a general way their opponents believed this also, but, whereas they insisted that it might take considerable time to create a favorable balance of payments, the Currency School reasoned as if gold could be obtained as rapidly as internal deflation could proceed.

Before the panic of 1847 the Currency School took the extreme position that no central reserve for the defense of the exchanges was either desirable or necessary. Appropriate internal adjustments being the aim, it was supposed that the balance of international indebtedness should bear directly upon member-bank reserves.¹⁸ Otherwise, the proper changes in credit and prices would be unduly delayed. It is not simply that they desired to make credit policy automatic. One can imagine freedom of

ing the profit or loss of transmitting gold to America must be the rate at which gold can be obtained for bills ("The Policy of the Bank," October 24, 1857). The writer does not make it clear that the loan to America is only one item in the balance of payments, and that even though the loan is profitable it may not be profitable to send bullion.

¹⁶ "The Stringent Terms of the Bank," April 11, 1857.

¹⁷ *Ev.*, H.C. 1848, q. 2215. See also qs. 1971, 2034.

¹⁸ The reserve of the Banking Department was considered similar to that of any other bank.

action taken away under some such plan as proposed by Chapman, in which the rate would be advanced a predetermined amount with a given change in the reserve. There was a question of criteria as well as of the amount of discretion. The Currency School considered that the proper criterion of the degree of pressure required to correct the exchange was the amount of the internal circulation and not the rate in the money market.

After the panic they receded actually from this position. They admitted that the Bank ought not to compete with other banks to any great extent in order to employ its reserve, and that on account of its great size it could give more aid than other banks during distress.¹⁹ This was a tacit admission that there was a central reserve and that changes in its amount should not dictate arbitrarily the efforts of the Bank to expand and contract. (The admission was made more palatable by their insistence that the circulation including the Banking reserve varied with the bullion.) Regardless of their formal position, they fully realized that foreign drains acted principally upon the reserve of the Banking Department.²⁰ But having tacitly recognized this fact, they reverted to the idea that the reserve was primarily a barometer for indicating the proper internal credit policy rather than a defense fund for the pound. They came now to be concerned with minimum reserve proportions for the Banking Department.

These opposing points of view were exemplified during the discussion directly after the panic of 1847. As a result of the Act of 1844 the Bank felt obliged to restrict credit drastically even though the exchange was favorable (during the October panic) and there remained

¹⁹ See Chapters XIII and XV.

²⁰ As a matter of fact, if the London banks held large excess reserves when the drain began, these would be reduced to the point where the banks would resist any further reduction. If such reduction were in the banks' note reserves, it would take the place of a reduction in the reserve of the Banking Department. If the reduction were in their balances at the Bank, the reserve in the Banking Department would be reduced also. Those who insisted that a drain affected merely the reserve of the Banking Department under any circumstances went too far. This is apparent if one examines the movement of London bankers' balances and the circulation in connection with changes in the bullion and with other circumstances which would indicate whether the banks started from a position of excess reserves.

£8,000,000 of bullion. The opponents of the Act contended that the Bank should not be obliged to deal with an internal and an external drain in the same way, that so long as the exchange was favorable the internal demand might be met with perfect safety.²¹ The theory that the two kinds of drains should not be dealt with in the same manner was not new, of course. As a member of the Lords Committee of 1841 pointed out, Henry Thornton and the Bullion Committee had stated that the Bank should deal differently with the two kinds of drains.²² Baring stated that it was on this theory that the Bank had expanded in 1825. The exchanges being favorable at the time, Liverpool and Huskisson, after advising with Baring and the Governor of the Bank, decided to expand instead of acceding to the Bank's request for suspension. The Act of 1844, he claimed, prevented such a remedy in the situation existing in 1847.²³ His pamphlet was written apparently before the Treasury Letter was issued.

²¹ One might get the impression from the discussion before the Committees that there was a large increase in the demand for Bank notes during the October panic, but there was not. There had been an internal demand for gold between April 17 and October 20 of £3,000,000, including the demand for Ireland (Palmer, *Ev.*, H.C. 1848, qs. 2064-65). The October panic arose from an attempt on the part of the Bank to deprive the banks of a considerable portion of their normal reserve.

²² *Ev.*, H.L. 1848, q. 1462. A member of the Bank Charter Committee had also called attention to the Bullion Report regarding the distinction between an internal and an external drain. The matter was well understood. (*Ev.*, 1832, q. 5368.)

²³ Lord Ashburton (Alexander Baring), *The Financial and Commercial Crisis Considered* (second ed.), pp. 11-14. Baring does not say so, but he and the members of the Government as well as the Bank directors must have known that the chances of averting suspension in 1825 were slight in any case. As it was, the Bank purchased gold at a premium through Rothschild, who obtained it in France and various other countries (Rothschild, *Ev.*, 1832, q. 4838; Ward, qs. 2068-71).

Incidentally, Baring's statement disposes of Joplin's claim that it was his letter to the *Courier* explaining the distinction between an internal and an external drain which suggested to the Government the proper course to pursue. Cf. his *Views on the Currency* (1828), p. 175; and *Examination of the Report of the Joint Stock Bank Committee*, 3d ed. (1837), p. 82. No one was needed to explain the principle. What was needed was some one to take responsibility in case suspension could not be avoided. The Government without acknowledging it assumed this responsibility in ordering the Bank to expand.

Palmer held that during a foreign demand, such as that of April, 1847, the Bank could give accommodation at an increased rate. Against such a demand no remedy was so effective as raising the rate. In case of internal pressure alone, as in October, 1847, the Bank could safely give assistance *without* raising the rate. A rate above 5 per cent would be inexpedient. It might increase the panic.²⁴ Glyn thought that it was not safe to extend the circulation until the exchange was corrected, but, once the exchange was favorable, the circulation might be extended with perfect safety.²⁵

Morris²⁶ and Loyd, on the other hand, held that an internal and an external drain should be dealt with the same way. Loyd finally admitted that it was not really necessary to contract when the exchange was favorable, but he thought that to draw any distinction as to the source of the drain would give an undesirable discretion to the Bank directors.²⁷ Norman stated that the source of the drain should not be "much" regarded. In case of panic it should be considered, but it was impossible, he thought, to legislate beforehand for panics.²⁸

Thus the Currency School wanted to disregard the causes of a drain because they considered all banks' reserves — including that of the Bank — as an automatic device for control. To distinguish between the causes would give an undesirable discretion to the Bank directors. Their opponents, on the other hand, desired to distinguish between the causes of a drain because they viewed the reserve of the Bank — which they considered essentially different from the reserves of other banks — as an exchange defense fund. Only such pressure, in their opinion, ought to be used as was necessary to

protect that fund, regardless of how much the internal circulation was expanding.

Even when the Currency School considered the reserve of the Banking Department as in a somewhat different category from the reserves of other banks they reverted to the idea that the reserve served chiefly as an index for the control of internal credit rather than as a means of maintaining international liquidity for the pound. Just as in the period before the panic of 1847 they had insisted that a reduction of the bullion reserve should be reflected in an equal contraction of the circulation, so now, observing that the note reserve of the Banking Department served really as a central reserve, they insisted that the Banking Department should try to maintain rather definite proportions of reserve to deposits. Morris stated that the reserve of the Banking Department ought to be about a third of the "ordinary" deposits.²⁹ Neave ten years later considered that a reserve of one fourth was about right in ordinary times.³⁰ Hubbard definitely considered that the reserve should be judged from the standpoint of the Bank's liabilities. Even if the sale of securities did not bring in notes, he stated, it reduced deposits, and, the Bank's liabilities being less, its position was stronger.³¹ Norman objected to the Bank's maintaining a large reserve for the purpose of absorbing the shock of gold movements.³² That is to say, he thought it was possible to keep the sphere of discretionary action within very narrow limits.

The more modern view was given by Tooke before the Lords Committee in 1848. The amount of the Bank's liabilities, he stated, was not the proper test of the amount of bullion it should hold. The bullion was acted upon by the state of the exchanges.³³ Such was also the position of Palmer and Baring. The "rule of 1832," which Palmer once espoused, related bullion to total liabilities, but he later abandoned the idea that the Bank could be managed

²⁴ Ev., H.C. 1848, qs. 1964, 2029, 2215; H.L. 1848, qs. 731-753, 788-796, 1018.

²⁵ Ev., H.L. 1848, qs. 1725, 1766, 1770-74, 1861, 1885, 1921.

²⁶ Morris, Ev., H.C. 1848, qs. 2818, 3241.

²⁷ Loyd, Ev., H.C. 1848, q. 5292; H.L. 1848, qs. 1448, 1514, and *passim*. A large part of Loyd's evidence before the Lords Committee was on this question.

²⁸ Norman, Ev., H.L. 1848, qs. 2738-45. Cotton thought that gold withdrawn for internal purposes was more likely to return to the Bank than gold sent abroad, and that the Bank would therefore be justified in lending more freely in the former case (Ev., H.L. 1848, q. 3274). For Torrens's position, see *Peel's Bill Explained*, pp. 46-56.

²⁹ Ev., H.C. 1848, q. 3439. Bankers' deposits beyond the usual amount might be called for at any time, he stated, and could not be dealt with as the ordinary deposits.

³⁰ Ev., 1858, q. 425.

³¹ Ev., 1857, qs. 2770-72.

³² Ev., 1857, q. 3516.

³³ Ev., H.L. 1848, qs. 3150-56. This was in keeping with his earlier views. See *History of Prices*, II, 330-332; III, 185-189, esp. p. 189.

by any automatic rule. In his evidence in 1848 he related drains to the causes which gave rise to an adverse exchange and not to the circulation or deposits. In a memorandum to the Committees he stated that drains were sometimes owing to political changes abroad and that in such cases restrictive measures might be postponed until the necessity of advancing the rate was exhibited. The drain might be only temporary. He pointed to the reduction in the Bank's bullion following the French revolution of 1830.⁸⁴ In similar fashion Baring held that four or five million pounds of gold would have satisfied the American demand in 1847. He would have permitted that amount to leave without drastic curtailment, considering the size of the reserve to begin with.⁸⁵ Newmarch in 1857 insisted that the Bank's reserve was the reserve of the nation and should therefore be related to the probable drain.⁸⁶ On the whole, this seems to be Mill's position also.⁸⁷

Weguelin's position was essentially similar to Tooke's. It is true that he stated that the minimum reserve should be about a fourth of the Bank's deposits, but he expected the proportion to vary within wide limits, to a half or more. At other points he stated that the Bank's reserve was the reserve of the whole country and so depended upon the balance of international payments. The Bank should not attempt to employ its reserve closely and, in fact, had not done so. The only immediate effect would be to depress the money market. He emphasized the point that over short periods the directors had no power of adjusting the reserve at some predetermined level.⁸⁸

Bank directors, such as Hubbard, Hankey, and Norman, who insisted that the other banks should maintain their own reserves,⁸⁹ instead of depending upon the Bank for meeting a

drain, failed to appreciate the fact that the note reserves of the private banks were for the purpose of maintaining internal liquidity, and that they could not at the same time be available for defending the currency unit itself. But at least their position was consistent with the theory which they professed, viz., that it was desirable for the private banks to be sensitive to a drain rather than have a central reserve to absorb the shock. However, it is scarcely likely that they really desired to place the banking system in as helpless a position for meeting a drain as their proposal (for each bank to hold its own reserve) would indicate.

The *Economist*, from its beginning an opponent of the Currency Doctrine, was patently inconsistent, for it was the editor's chief aim to strengthen the reserve for meeting international withdrawals. Nevertheless, he upheld the system of divided gold reserves *in principle*. Although stressing the point that the money market actually depended mainly upon the Bank, and that the Bank should therefore maintain a reserve large enough for meeting its responsibilities to the market, the *Economist* held that the ideal system was one in which the bankers held their own reserve. A great number of banks, it was said, had a stronger motive to maintain a large (total) reserve than a single bank.⁴⁰ This is Bagehot's well-known position in *Lombard Street* (1873). Before the Committee on Banks of Issue in 1875 he states in reply to Goschen: "If we were starting *de novo*, I should like to see a large number of banks each holding its own reserve." He adds that it is now too late to change and that the real reserve of the country must be held by the Bank.⁴¹ The theory, as distinct from the prac-

⁸⁴ Memorandum in Report, H.L. 1848, app. B; memorandum of March 14 following Ev., H.C. 1848, q. 2238.

⁸⁵ *Op. cit.*, pp. 16-17.

⁸⁶ Ev., 1857, qs. 1364, 1415, 1889.

⁸⁷ Ev., 1857, qs. 2073, 2102, 2106.

⁸⁸ Ev., 1857, qs. 244-269, 277-283, 302, 546, 554, 627-667, 757. See also his letter to Lewis, Report, 1857, app. 1.

⁸⁹ Hubbard, Ev., 1857, q. 2380. Hankey, *Principles of Banking*, pp. 20-30. See also his discussion with Mill, Ev., 1857, qs. 2228-58. Norman states that he is in general agreement with Hankey, that it is unsound and impracticable for the Bank to keep the whole unused reserve (letter, written Dec. 19, in the *Economist*, Dec. 22, 1866).

⁴⁰ "Is It Better that the Banking Reserve of a Country Should be Kept in a Single Bank or Be Distributed between Several Banks?" (August 25, 1866). In an earlier article, "Sir John Lubbock's Proposal to Remove the Deposits of the London Bankers from the Bank of England," September 29, 1860, the *Economist* correctly pointed out that the bankers would not venture to lend their reserves in time of trouble. In this article the writer added that a mere theorist would say that a banker should keep his own reserve. See also "What is the Proper Reserve of the Bank of England?" by "A Banker," April 3, 1858, insisting that the Bank should maintain a larger reserve since it is the real reserve of the whole country.

⁴¹ Ev., 1875, qs. 8099 *et seq.* Palgrave follows Bagehot's view in this respect. He believes that business would be on a

tice, which Bagehot advocated was a reversion to the ideas of those who in the 'thirties wanted to establish other London chartered banks co-ordinate with the Bank. The City of that period had opposed the idea. Rothschild had stated the real objection: in order for the gold to be available for meeting a drain it must be under one control.⁴²

3. *Theoretical Assumptions Concerning the Gold Standard*

The assumptions behind the belief in a relatively stable international standard were for the most part tacit rather than avowed. In the first place it was supposed that there was a vast trading world over which England could exert no influence of first magnitude. It was supposed that the relation in the world market between the precious metals and commodities (though not of course particular commodities) was rather stable, and that if one had either good securities or commodities of the right kind to offer he could always exchange them for bullion without making an unbearable sacrifice. When Tooke asserted that credit could not affect prices but only contribute toward temporary conditions of overtrading he was assuming implicitly that the world level of prices could not be disturbed by mere expansion of credit in England. Maintaining convertibility of the Bank note gave an externally determined set of domestic prices, he reasoned.⁴³

However, this was a more extreme position than most of his contemporaries held. More commonly it was believed that the price structure in a given country might deviate to some extent from normal equilibrium with an externally determined world level but that it tended

more solid footing if the banks held their own reserves (*Bank Rate and the Money Market . . . 1844-1900*, ch. iii). He constantly confuses the considerations which apply to the reserve of the Bank with those which should apply to the reserves of the other banks. Jevons takes Bagehot's view in insisting that the London banks need a larger gold reserve for external use. But he warns that if each bank held its own reserve, some would let their reserve run dangerously low, trusting to others for aid. Combined action is therefore requisite. But he thinks this might take the form of a committee of all the important banks in the United Kingdom. (*Money and the Mechanism of Exchange* (1875), pp. 322-324.) It seems strange that he does not see that the machinery is provided by the central bank.

⁴² Ev., 1832, q. 4904.

⁴³ Ev., 1840, qs. 3276-3303.

to return to it.⁴⁴ The orthodox theory of business fluctuations was that speculation — encouraged often by cheap credit — led to higher prices than were warranted by the conditions of supply and demand and that the *consequent recoil* of prices led to exhaustion and depression, i.e., to business losses and unwillingness to make commitments.⁴⁵ How often do we see the phrase "the inevitable reaction"! The reaction is inevitable only on the assumption that there is a stable external world which governs all but the temporary deviations in any one country.

Starting from this belief in a stable external world, the critics of the Currency Doctrine (with few exceptions) as well as its adherents believed that England could always turn the exchanges in her favor by a sufficient contraction of credit. Both Tooke and Norman, it is interesting to note, stated that advancing Bank rate was an "infallible" means of stopping a drain.⁴⁶ Where they differed on this point was in the length of time which they assumed was necessary to attract gold. The Currency School considered that gold could be obtained from abroad as rapidly as securities and goods could be offered in the world market. Tooke, on the other hand, assumed that internal panic might develop before the gold could be obtained, or that in any case the pressure used in getting it would be unnecessarily great if too much were required over a short period.

Regarding the point whether excessive contraction might defeat the aim of turning the exchanges, little was said. It was commonly agreed that excessive pressure would aggravate the internal demand,⁴⁷ but it appeared to be

⁴⁴ See, for example, Palmer, Ev., 1832, qs. 371-389.

⁴⁵ See, for example, Mill, review of Tooke's *Currency Principle*, in *Westminster Review*, xli, 585, and *Principles*, bk. iii, ch. xxiv. The idea that the real injury was done during the period of credit expansion and not during the contraction, which was considered curative, was very common. See Tooke, Ev., H.C. 1819, p. 125; H.L. 1819, q. 7. See also Gurney, Ev., 1832, q. 3665.

⁴⁶ Tooke, *Currency Principle*, p. 103. Norman, "The Reserve of the Bank of England," *Economist*, December 22, 1866.

⁴⁷ Nevertheless, the Bank during the panics of 1847 and 1857 was preparing to sell additional securities with the idea of taking notes from the market if the Treasury Letter were not issued (Morris, Ev., H.C. 1848, qs. 3582-95; H.L. 1848, qs. 210-220; Dobree, Ev., 1858, q. 841).

assumed that pressure always worked in the direction of increasing the supply of foreign bills, no matter how far it was carried. This assumption, however, was disputed by Palmer and by Alexander Baring in specific instances. They argued that the difficulty of discounting in 1847 had seriously hindered exports, and not merely imports, so that the exchange was affected adversely.⁴⁸ Palmer earlier had taken the position that the run on the pound in 1839 would not have been relieved by further internal pressure. Further pressure, he stated, instead of creating additional supplies of exchange, would only have increased the alarm.⁴⁹ However, we must not assume from such statements that Palmer considered that the exchanges could not be controlled under proper management of the Bank.⁵⁰ In 1856 he wrote to Lewis that the Bank could always secure convertibility, if not interfered with by the government, except in periods of continued *internal* panic.⁵¹ On the whole, we may conclude that the premise that England could always turn the foreign exchange in her favor was not seriously questioned.

The orthodox supporters of the gold standard further assumed implicitly that whatever sacrifices were necessary to maintain gold payments were worth making. Loyd argued that a favorable exchange was an essential preliminary to the suspension of the Bank Act. He was asked if he considered that everything should be sacrificed for the sake of convertibility. He replied,

⁴⁸ Palmer, Ev., H.C. 1848, qs. 2007, 2043. Baring (Ashburton), *Financial and Commercial Crisis Considered*, p. 19. Wright stated that during the panic of 1847 the manufacturers of Nottingham could not execute orders because they could not get their bills discounted (Ev., H.L. 1848, q. 2920). Cairnes expressed a similar view. While it was true that a fall of prices "within certain limits" tended to stimulate exports, too sudden a fall would have the opposite effect; also, a violent contraction of credit would interfere with the manufacture of goods for export (*An Examination into the Principles of Currency Involved in the Bank Charter Act of 1844*, 1854, pp. 34, 37-38).

⁴⁹ Palmer, Ev., 1840, qs. 1469-76. He was of course defending the Bank's action in obtaining credits in Paris and Hamburg.

⁵⁰ He considered that the run on the pound in 1839 arose from the peculiar way the Bank was managed (Ev., H.L. 1848, q. 838).

⁵¹ Letter to Lewis, Report, 1857, app. 1. Palmer included under "interference" the limitation of the note issue by the Act of 1844.

in effect, that it was better to sacrifice private credit than to endure the worse evil of the suspension of gold payments.⁵² Morris was asked if, in the existing state of Europe (1848), it would be safe to thwart the revival of employment. He replied that, if bullion were leaving the country, it would be necessary to take restrictive measures or endanger convertibility. He considered that nonconvertibility would produce more lasting injury than the unemployment and ruin of merchants resulting from the maintenance of gold payments.⁵³ Glyn, though opposed to the Act of 1844, nevertheless held that the Bank could not venture to enlarge the circulation unless the exchange were favorable.⁵⁴ This was also the position of the Lords Committee in 1848.⁵⁵ Thus it was not merely the Currency School who thought that great sacrifices should be made in order to retain the gold standard. Even Tooke in his third volume of the *History of Prices* had recommended a ruthless deflation where necessary to protect the bullion reserve.⁵⁶ In his later writings he merely changed his emphasis, holding that under proper management no such sacrifices would be necessary.⁵⁷

There were dissenters, however, who thought that sacrifices to maintain convertibility might be carried too far. Gurney, though holding that the return to gold had been good for the country and had strengthened credit, stated that there were worse things than the abandonment of gold.⁵⁸ Chapman, who was the head of Overend, Gurney, and Company in 1857, stated that, if it were a question of maintaining specie payments or the industry of the country, he would prefer to drop specie payments.⁵⁹ It appeared obvious to the bill brokers that a refusal to lend on the part of the Bank would be far more serious than the abandonment of gold.

Others, more unorthodox, were outspokenly

⁵² Ev., H.L. 1848, q. 1537. See also Ev., H.C. 1848, qs. 5156, 5292.

⁵³ Ev., H.C. 1848, qs. 3328, 3442-44, 3840.

⁵⁴ Ev., H.L. 1848, qs. 1772-73.

⁵⁵ Report, H.L. 1848, sec. xiii.

⁵⁶ Vol. III, pp. 89, 110.

⁵⁷ As an example, see vol. V, p. 586.

⁵⁸ Ev., H.L. 1848, qs. 1158, 1232.

⁵⁹ Ev., 1857, q. 5338. Chapman adds, however, "God forbid that it ever should happen."

opposed to the gold standard.⁶⁰ J. W. Bosanquet argued that, while the proper object of convertibility was to prevent excessive variations in the value of the currency, at times it had the opposite effect. He proposed therefore that the managers of the currency should suspend gold payments rather than resort to severe contraction. After two years of depreciation of the exchange of more than $\frac{1}{2}$ per cent they should be at liberty to raise the rate to $5\frac{1}{2}$ and then to 6 per cent. He seems to have had little idea of the extent to which the exchange might vary once gold payments were suspended.⁶¹

Blackwood's, in no sense an advocate of radical doctrines generally but a Tory publication, continued intermittently its opposition to the gold standard with articles by David Robinson, Sir Archibald Alison, John Dickinson, and R. H. Patterson.⁶² Alison admitted that the California gold discoveries had temporarily removed part of the evils of a currency convertible into gold. But the relief was *only temporary*; fresh supplies of gold would encourage new undertakings which could not be completed when a drain again occurred.⁶³ Patterson stated in 1856 that the return to gold had converted the forty years of peace into a "season of nightmare crises." Arguing that the difficulty is not with the propensity to speculate, he contends that speculation is promoted by the inflow of gold and that the restriction of the currency which follows the outflow is the "most potent agent for converting good speculations into bad ones." The crisis of 1855 was "entirely of a monetary kind." Gold having lost its steadiness of value, "can we not steady the currency by means of our paper-money . . . ?" Let gold sell for what it will bring, as during the Restriction period.⁶⁴

The Select Committees in 1857 and 1858 heard some evidence in opposition to the gold standard, as indeed earlier Committees had

done. John Twells (a London banker), G. H. Foster (a director of the London Joint Stock Bank), Sampson Samuel Lloyd (of Lloyds and Company, Birmingham), and Robert Slater (of Morrison, Dillon, and Company) contended that regulating the currency by gold invited speculation and then required restriction. They argued for an inconvertible currency with the aim of reducing fluctuations in money rates and prices.⁶⁵

The arguments of the dissenters appear to have made little impression upon the City of the middle of the century. The replies of the Bank directors to the questionnaire of G. C. Lewis in 1856, which nearly unanimously supported the Act of 1844, would seem to indicate that there was no doubt in their minds regarding the advantages of the gold standard. The Committee of the Treasury of the Bank in 1858 consisted of Norman, Cotton, Heath, Morris, Hankey, Hubbard, Neave, Dobree, and Latham. All of them were defenders of the Bank Act, and *a fortiori* defenders of the gold standard. The *Economist* held that anything that endangered cash payments would sap the foundations of credit.⁶⁶ Cairnes was probably not far wrong in stating that "all the most distinguished economists in the three kingdoms, all the first practical financiers," and (he believed) "every statesman of eminence" supported the doctrine of convertibility.⁶⁷

4. Conclusion and Criticism

Thus at the time our period closes there was very little dissent from the view that the international standard provided on the whole a stable currency, that England had a dependable procedure for maintaining parity with it without excessive sacrifices, and that such sacrifices as were necessary were well worth making.

in the *Times* under the pseudonym of "Mercator," in which he says that want of capital has occasioned the crisis, Patterson states that it is money, not capital, that we are striving for. Mercator, "the *magnus Apollo* of the Bullionists," is "done—defunct" (pp. 17-18).

⁶⁰ Twells, *Ev.*, 1857, qs. 4539 *et seq.*; Foster, *Ev.*, 1858, qs. 2186-2267; Lloyd, *Ev.*, 1858, qs. 2821-67; Slater, *Ev.*, 1858, qs. 2389 *et seq.* See also the evidence of John Taylor, H.C. 1848, qs. 5498 *et seq.* Taylor wrote numerous pamphlets in opposition to the gold standard.

⁶¹ "The Bank Charter Act, 1844," Oct. 20, 1855.

⁶² *An Examination into the Principles of Currency Involved in the Bank Charter Act*, pp. 6-7.

⁶⁰ Cf. R. S. Sayers, "The Question of the Standard in the Eighteen-Fifties," *Economic History*, vol. II (1933).

⁶¹ *Metallic, Paper, and Credit Currency*, pp. 118-140.

⁶² See Bibliography, below.

⁶³ "The Currency Extension Act of Nature," *Blackwood's*, LXXIX (1851), esp. p. 18. For an earlier attack on the gold standard, see his *England in 1815 and 1845: Or, a Sufficient and a Contracted Paper Currency* (1845).

⁶⁴ "The Gold-Screw, and its Consequences," *Blackwood's*, vol. LXXIX (1856). Referring to Lord Overstone's articles

The growing popularity of the theory that the Bank could regulate the international flow of capital undoubtedly strengthened the belief that the gold standard was automatic and that Bank management could be reduced to a routine of relaxing credit as gold came in and tightening credit as gold went out. Confidence in this procedure weakened to some extent the argument in favor of a large central reserve. Since the Bank, it was reasoned, had such infallible means of defending itself against an external drain there was no need for an exchange defense fund. Nevertheless, the claims of the Currency School were greatly moderated. Directors such as Hubbard, Norman, and Hankey formally maintained that the private banks should hold their own reserve, or at least a larger part of the reserve, but they conceded that as things stood the main burden of drains fell upon the Bank. Hubbard as well as Weguelin considered that exports of bullion were offset to a large extent by increased discounts at the Bank⁶⁸ rather than by a reduction of the reserves of the London banks. Such a procedure implied that the Bank should be left with a certain degree of discretion in the management of credit. Since discounts increased in any case during a drain, there was obviously a question as to what extent the Bank should use restrictive measures.

Thus there was a convergence of views. While it was admitted that a certain amount of discretion must of necessity be left with the Bank, it was believed that credit policy should be as nearly automatic as possible. Bank rate *ought* to be sensitive to gold movements just as gold movements *were* sensitive to Bank rate. This principle of management is reflected in the attention which was given to the reserve proportion as a guide to Bank policy. As a matter of fact, however, the Bank did not maintain even an approximately stable reserve proportion. Moreover, in discussing in detail how Bank rate was to be regulated with reference to the reserve, the directors made it clear that they wanted to be left free to act in each individual case according to circumstances.

⁶⁸ *Ev.*, 1857, qs. 2556-61. Hubbard of course supported the "principle" of the Act of 1844; Weguelin on the whole did not.

They rejected any suggestion that they should follow a mechanical rule.⁶⁹

My criticism of this theory of the monetary standard and of Bank management is that it overlooked the fact that the Bank itself managed the standard.⁷⁰ The credit systems of other countries were directly responsive to credit conditions in England, but their bullion holdings were adjusted to felt requirements. I am not taking the position that London had no means of influencing the willingness of other countries to hold gold, but that such means as it had were always on a precarious footing. The Bank was the place of last resort for obtaining gold for the rest of the world. And against the determined efforts on the part of other countries to strengthen their reserve, London had no real defense.

Let us consider the means by which credit conditions in London influenced the credit systems of other countries. So long as sterling bills and balances were not discredited they satisfied to a very important extent the demand for the means of international settlement. An expansion in London improved the liquidity of foreign merchants and banks either in the sense that it increased their actual holdings of sterling exchange or in the sense that it made them feel more secure in their ability to obtain London credit or to obtain it more cheaply.⁷¹

The practices indeed were understood by contemporary observers. The *Economist* pointed out that continental bankers and merchants held at all times a large supply of sterling bills.⁷² This accords with B. W. Currie's statement some thirty years later that the reserves of bankers all over Europe consisted largely of bills on London, which they regarded "as an absolute gold reserve." Even the French railways, he stated, held large amounts of sterling bills.⁷³ It seems unlikely that the practice was of recent growth, for in 1832 Rothschild had pointed out that England was banker for the

⁶⁹ See Chapter XIII, section 7.

⁷⁰ Cf. Hawtrey, evidence and memorandum, Committee on Finance and Industry, 1931; Williams, "Monetary Stabilization from an International Point of View," *American Economic Review*, vol. xxv, supplement (1935).

⁷¹ There is no simple definition of liquidity.

⁷² "The Bank Returns and the Money Market," October 13, 1855.

⁷³ *Ev.*, 1887, q. 6670.

whole world, transactions everywhere being settled in London.⁷⁴

Contemporary observers realized also that the foreign trade of the world was financed largely with London credit.⁷⁵ And it must have been apparent that the cost of such credit and local credit competing with it would be governed by the London money market. Also, it was well recognized that London issuing houses financed an important part of the long term credit for America and the Continent. William Brown pointed out that America followed every move in money matters in England.⁷⁶

But, though the practices were understood, the correct inferences were not drawn from them. Burgess was undoubtedly one of the few contemporary observers who had a better appreciation of England's true position. In support of his argument in favor of currency expansion, he states: "It is clear, from the stagnation in business, and the extensive failures in all commercial states that have intercourse with us, which take place at all times when we adopt measures to contract our currency, that the state of our paper circulation has a very great effect upon the circulating medium of all other states. By withdrawing an amount of paper currency from circulation in England, we at the same time reduce the credit circulation of the whole commercial world, and simultaneously create a general demand for metallic money." He adds that, since England has such power to force contraction, her power must also be great to prevent contraction in other countries.⁷⁷

Burgess's view, however, made little if any impression on contemporary opinion. Generally it was assumed that the only significant way London could affect the credit systems of other countries was by influencing their gold supply.⁷⁸

⁷⁴ *Ev.*, 1832, q. 4799.

⁷⁵ See the discussion of Glyn, Weguelin, Wilson, and M. T. Smith during the examination of John Ball, *Ev.*, 1858, qs. 1699-1792. Smith claimed that a Boston merchant could not obtain a cargo of tea from Canton without first obtaining a credit from Messrs. Matheson or Baring.

⁷⁶ *Ev.*, H.L. 1848, qs. 2300, 2326.

⁷⁷ *Letter to Canning*, pp. 104-109, esp. p. 106.

⁷⁸ The oversight of contemporary observers in this respect was similar to their failure to see that the Bank could influence the effective terms of credit in England by creating deposit balances for the London banks.

Moreover, reasoning that no one country would lose much gold (in the net) as the result of England's gain, contemporary observers concluded that other countries would remain nearly passive while England contracted credit and strengthened her reserve at their expense.

In fact, however, bankers in other countries, having a reserve partly in the form of bullion and partly in the form of sterling bills, would at any given time adjust their bullion holdings to what they considered their requirements in the light of the credit situation. It is true that London could influence their decision within certain limits by varying discount rate, for the rate of earnings on sterling bills was one consideration in the decision whether to hold more bills or more bullion.⁷⁹ But the usefulness of such bills as a reserve was contingent upon the unquestioned ability to discount them in London. Thus if the Bank limited its discounts arbitrarily or threatened to do so, and not merely raised the rate, it would defeat its aim of getting bullion, since it would drive foreign banks to take bullion instead of bills. On the other hand, so long as the bills were considered nearly the equivalent of gold, they would satisfy an increased demand for liquidity accompanying credit restriction.

But, while England could influence the foreign demand for bullion in this way to some extent, I believe the process was always on a precarious basis. It can scarcely be supposed that foreign banks would endanger liquidity for the sake of earnings. Foreign banks which had not allowed their bullion holdings to reach the minimum of safety before a crisis might be attracted by a high discount rate and depart from their customary reserve position. But those whose bullion reserves were already at the minimum of safety would not want to see a further reduction, regardless of the rate on sterling bills. Whether or not England could attract gold from particular countries was a matter of uncertainty. In 1847 and in 1857 London took gold from some countries and sent gold to others.⁸⁰ It was only the circumstance

⁷⁹ Cf. Birch (Governor from 1879 to 1881), *Ev.*, 1886, q. 1368.

⁸⁰ Palmer, *Ev.*, H.L. 1848, qs. 688-692, 803; Brown, H.L. 1848, q. 2296; Bates, H.C. 1848, qs. 2558-68; Morris, H.C. 1848, q. 2840. Report, 1858, app. 12.

of mutual distrust in 1857 which prevented more gold from going to America.⁸¹ The system worked only so long as not too many countries demanded gold at the same time.

In addition to such possibilities of influencing the foreign demand for gold, London influenced the demand for the active circulation abroad in so far as it influenced the economic situation out of which the demand arose. An effect of this sort would be delayed, however, and could not be considered a means of getting gold in an emergency. In the same manner London could exert some influence upon normal reserve requirements in other countries.

During the nineteenth century and until the recent war it was commonly believed that England's creditor position gave her an infallible means of controlling the exchange. It was held that, by reducing the volume of new acceptances discounted, the steady stream of acceptances maturing in London could be used to draw in gold.⁸² (The argument was extended to cover the capital market: the current flow of interest and dividends on foreign investments could be turned to advantage by reducing the volume of new foreign issues.) But there was an obvious limit to the extent this power could be used. The acceptances falling due could be paid only on condition that London continued to discount new bills. It must be remembered that London provided the liquidity for the international standard, and that active measures to draw in gold would start a restriction of credit throughout the gold standard world. If the liquidation proceeded too fast, other countries would be *less willing* to give up gold. The possibility of diverting gold to London depended upon getting other countries to reduce their preference for gold in favor of other liquid resources. If London had tried to compete for gold by becoming progressively more bearish as other countries became more bearish, the international standard would have broken down.⁸³ It

is not likely that other countries in the midst of a financial crisis, with their liquid resources other than gold impaired, would have used their gold reserve to meet the claims of London. They would have suspended gold payments. The Governor (Morris) in 1847 considered that the Bank could have maintained cash payments even though there had been general commercial discredit in the City. The maturing bills, he thought, would have provided the Bank with a sufficient amount of notes to meet its liabilities. He forgot that no bills could have been paid without the liquidity provided by the Bank. Those who supposed that London could always exact payment from other countries in gold simply because of the legal claims upon them made a similar mistake. When London in 1914 refused to discount, the world generally defaulted.

We may attribute England's ability to maintain gold payments continuously not to the operation of any natural law, but to favorable historical circumstances which could not be counted upon to continue. Not the least of these was the increase of the world gold supply, which had begun on a moderate scale even before 1844. The policy of the Bank in never refusing to discount, except for very short periods in 1825 and 1847, was also favorable. The Bank was willing to see much greater variations in its reserve than the central banks of England or America would see today without resorting to destructive methods or suspension. But even with these favoring circumstances, I believe that it was a historical accident that the demand for gold from different parts of the world did not come together sufficiently to exhaust the Bank's reserve.

A few words regarding the extent to which the views of the older writers and financial leaders anticipated those which have generally been considered of more recent origin: The arguments of important groups in the City against Resumption in 1819 remind one very much of the opposition to the return to gold a century later. It was argued that the currency restriction necessary to raise the pound to the old parity would seriously affect the profitability of trade, curtail production, and cause

traction in London — would have interfered with their absorbing additional securities.

⁸¹ Neave, *Ev.*, 1858, qs. 83-85.

⁸² The argument did not give adequate weight to the fact that foreigners held large short term claims on London in the form of bills and balances.

⁸³ On the same reasoning, the ability of London to attract gold by dumping securities on foreign markets was quite limited. Aside from the psychological effect of a fall in the London market upon foreign markets, the impairment of the liquidity at the foreign centers — induced by the con-

unemployment. It was also pointed out that the value of bullion itself would probably rise owing to the return to specie of countries then on a paper basis and owing to their accumulations of bullion in bank reserves and war chests. The Bank directors and many in the City expressed doubt as to the automatic character of attracting gold by contraction.⁸⁴ Later writers considered this a form of heresy, but today we should be more sympathetic to the older view.

The more unorthodox writers of later decades preserved the theory that the currency could be regulated without regard to gold and that the country could thereby save itself from the hardships of deflation and depression. As the period of paper currency became more remote

they made less impression on the opinion of their day. But they anticipated much that has been said recently regarding the feasibility of a permanently managed currency.

The theory that the Bank could influence the international flow of capital is considerably older than has commonly been supposed. It was stated as early as 1819, and by the 'forties it played an important part in shaping Bank policy.

The view that the gold reserve should be free for meeting an external drain, and that its variations were not for controlling automatically the degree of internal pressure, was well understood even before Resumption. The idea that the discretionary control of credit could be superseded by an automatic control by the international standard was an innovation of the laissez-faire reformers.

⁸⁴ See, for example, Gurney, Ev., H.C. 1819, pp. 176-177; Harman, p. 48 and *passim*; Pole, pp. 34, 36; Rothchild, pp. 157-158; Baring, pp. 180, 196; Thornton, H.L. 1819, qs. 3, 8.

LATER DISCUSSION OF THE BANK CHARTER ACT OF 1844

NO general agreement was ever reached as to whether the Bank Charter Act of 1844 was in the net a good or an evil. The controversy simply passed into the background. The reason for this essentially was that it came to be understood that the Bank was to be managed on fundamentally the same principles as before 1844.¹ It was realized that its operations affected the whole credit structure and that it continued to hold most of the reserve of the country for meeting international settlements. After the panic of 1847 much less was said regarding the aim of varying the circulation with the bullion. The aim which came to be stressed more was that of insuring convertibility of the Bank note by providing for a larger reserve. Those who favored the Act continued to insist that the discretionary control of the *currency* was unsound and had in fact been abolished by the Act, but they admitted that the Bank had to exercise a discretionary control of *credit*, and that this control should be in the public interest rather than in that of the proprietors. It was generally agreed that the Bank must continue to serve as a lender of last resort and that the Act would be suspended whenever it interfered with this obligation. Without the belief that it would be suspended when necessary the Act would undoubtedly have been modified.

The increase of the world gold supply made it less likely that the reserve of the Banking Department would be inadequate. And to some extent the custom of the London banks of hold-

ing a larger portion of their reserves in the form of balances at the Bank as compared with Bank notes reduced the importance of the limitation of the Bank note issue. During the panics of 1857 and 1866 there were large increases of London bankers' balances as well as of Bank notes. In 1873 there was a considerable increase of bankers' balances but no appreciable increase of notes. However, the importance of this factor should not be exaggerated. Bank notes continued to be a very important part of the reserves of other banks.²

1. *Does the Act Increase Business Instability?*

The Act was most under attack directly after the panic of 1847. Palmer, Brown, Tooke, Glyn, Gurney, and others held that the panic was caused by the artificial limitation of the currency, which would not have been necessary except for the Act. Palmer stated that the crop failures caused the export of gold, and that the insolvency of the corn merchants and the houses connected with the India trade caused a withdrawal of notes for internal use. The inability of the Bank to meet that demand caused the panic.³

Norman, on the other hand, claimed that the Act had kept things "very much in their natural and legitimate course." He and Morris emphasized as causes of the panic the crop failures, the large investments in railways, the insolvency of the corn speculators, and the suspension of an eminent discount broker with

¹ Some conjecture on the matter can be made from examining Chart XVIII in the Appendix, below. See also Chapter III, section 6. For relative amounts of "cash in hand" and balances at the Bank in recent years, see Report of the Committee on Finance and Industry, 1931, pp. 35, 156.

² Palmer, *Ev.*, H.L. 1848, qs. 684-698, and *passim*; H.C. 1848, q. 1944. Brown, *Ev.*, H.L. 1848, *passim*. Gurney, *Ev.*, H.L. 1848, q. 1168. Gurney stated that the extent of the calamity was caused by the Act.

³ The change in discount policy was not of fundamental importance. Contrary to a common opinion, the most important change was not in keeping Bank rate close to the market when rates were low, but in raising the rate so very high when the demand for discounts was large. This change was not of course a consequence of the Act but it was a product of the theories which lay behind the Act.

country connections⁴ (Sanderson and Company). In general the position of the Currency School was that, since there was an unfavorable balance of international payments, the currency was *ex hypothesi* excessive, and that severe contraction was necessary. The Act had required the contraction to come earlier than it would have otherwise, and had thereby *lessened* the severity of the panic. If action had been delayed, as was customary before the Act was passed, the panic would have been much worse.⁵ Loyd, however, blamed the Bank for not acting earlier than it did. Even the Act was not entirely efficacious in enforcing sufficiently early action, though he thought it had required prompter action than the old system.⁶

The opponents of the Act then pointed out that the exchange was favorable before the panic, and that such pressure was not required to maintain cash payments. They made a very great deal of the distinction between an internal and an external drain, and argued that except for the Act the Bank could have given relief without endangering cash payments.⁷ Loyd and Norman reluctantly admitted the force of this argument in the particular instance, but they insisted that it was not possible to legislate beforehand for panics. Under most circumstances, they believed, it was not desirable to have regard for the sources of a drain. To do so would involve discretionary management of the currency, which it had been the purpose of the Act to avoid.⁸

The opponents of the Act generally insisted that it did not place restrictions upon the Bank during prosperity but only took away its ability to give relief after the drain set in and the reserve was materially reduced.⁹ Mill, however,

held that, though the Act required overdrastic action after a drain set in, it also required earlier action and so tended to avoid the necessity for drastic action.¹⁰ The other critics had pointed out that a period of active trade need not be accompanied by an increase of the circulation. As a matter of fact the Bank circulation did not rise in the few years preceding the panics of 1847 and 1857.¹¹

The question whether the Act of 1844 moderated or aggravated business fluctuations ceased to be important once it was understood that the Bank accepted responsibility for the discretionary regulation of credit in the public interest, and that its power to give relief during crises was to be continued even though it might require suspension of the Act. This is the subject of the next two sections.

2. *Was the Bank to be Managed as a Public or as a Private Institution, and Was it to Serve as a Lender of Last Resort?*

According to Palmer, Glyn, Tooke, and other critics of the Bank Act, it was generally understood in 1844 that the Bank was to be released from its public responsibilities with regard to the regulation of credit.¹² Not all the critics, however, insisted that the Bank actually had been operated without regard to the public interest from 1844 to 1847. In general they pointed out that the Bank's operations affected the whole credit structure, and that it was responsible for maintaining the real reserve of the country.¹³ It was not *Lombard Street* that converted the country to this view.¹⁴

⁴ Ev., 1857, qs. 2026-31. Mill's position is that a trade expansion, though not "caused" by an increase of notes, is "attended" by an increase, and that when over-speculation develops to the point that dealers are pressed for payment they apply to the banks to enable them to hold on. The Act prevents them from getting this credit, and so checks the speculation. Nevertheless he holds that the disadvantages of the Act outweigh these points in its favor. See also q. 2043.

⁵ See Appendix, Charts VIII, XII, XIII.

⁶ Palmer, Ev., H.L. 1848, q. 857. Glyn, Ev., H.L. 1848, qs. 1675-76, 1813-14.

⁷ Glyn, Ev., H.L. 1848, q. 1898. Milner, *Floating Capital*, pp. 111-112. Mill, Ev., 1857, qs. 2032, 2228-29. Chapman, Ev., 1857, q. 4974. Newmarch, Ev., 1857, q. 1364. Tooke, *History of Prices*, v, 543-545.

⁸ Nevertheless when *Lombard Street* was written, Hankey (a former Governor) and some others were trying,

⁴ Norman, Ev., H.L. 1848, qs. 2680-81. Morris, Ev., H.C. 1848, qs. 2675-76.

⁵ Loyd, Ev., H.C. 1848, q. 5116. Norman, H.L. 1848, qs. 2685-88.

⁶ Ev., H.L. 1848, qs. 1353-54; letter to the *Times*, *Tracts*, pp. 365-367.

⁷ Palmer, Ev., H.L. 1848, qs. 730-746. Glyn, H.L. 1848, qs. 1725, 1861.

⁸ Norman, Ev., H.L. 1848, qs. 2731-45. Loyd, Ev., H.L. 1848, qs. 1448-83.

⁹ Palmer, Ev., H.L. 1848, qs. 697-698. Ashburton, *Financial and Commercial Crisis Considered* (2nd ed.), p. 5. Alison, Ev., H.L. 1848, qs. 3868-73. Gurney, Ev., H.L. 1848, qs. 1166-74. Danson, "On the Accounts of the Bank of England," *Journal of the Statistical Society*, vol. x (1847).

The defenders of the Act admitted that its purpose was to place the Bank on the same footing as any other bank and in part they defended it upon this ground. Nevertheless they denied that it was intended to relieve the Bank from looking after the national interest. Morris held that the Bank was like any other bank except for its size. However, he stated that the interest of the Bank and that of the public were the same. Prescott (the Deputy Governor) added that the directors looked first to the public interest.¹⁵

Norman in 1848 stated that the Bank was a national institution and should be managed in the national interest, though he claimed that, in a large view, the interest of the public coincided with that of the Bank. In 1857 he was more uncompromising. He considered that "the issue of money should be regulated by the state," and that once it was issued "bankers should be allowed to deal with it as they please." The Banking Department was "exactly like any non-issuing bank." Nevertheless he added that it was not to its own interest or to that of the public for the Bank to compete actively with other money dealers.¹⁶

Loyd in 1848 stated that the Act, by relieving the Bank from responsibility with regard to the currency, produced the impression on some that the Bank had less to do with the public interest than before. But he believed that it had not produced such an impression to any great extent. The Bank ought to act in the public interest and in fact had done so. Generally, Loyd held that a Bank policy in the public interest was simply a prudent policy such as would be recommended to a private bank. But at one point he stated that, because of its public position, the Bank should not compete actively for discounts.¹⁷ In 1857 he formally maintained the position that the Bank was the same as any other bank.¹⁸ Nevertheless, in a letter to the *Times* he admitted that a decrease in the reserve of the Banking Department was

more significant than a decrease of currency in the hands of others because of its effect upon the other banks.¹⁹

Thus the supporters of the principle embodied in the Act tended to hedge their statements that the Bank was like any other bank, so that when all their statements are taken together it is clear that no responsible persons in the City desired to have the Bank conducted as an ordinary joint stock bank. Torrens's position is another case in point. He first states that the Banking Department is on the "footing of an ordinary bank of deposit and discount." But he adds that it differs from an ordinary bank in these ways: (1) It exercises a greater influence because of the greater capital at its command. (2) It receives the growing produce of the revenue and makes temporary advances to the Treasury. (3) It holds some considerable portion of the reserves of other banks. These circumstances, he believes, render it more indispensably necessary for the Bank to maintain an adequate reserve.²⁰

The Commons Committee on Commercial Distress, though recommending that the Act should be continued, pointed out that the Bank was "a public institution, possessed of special and exclusive privileges, standing in a peculiar relation to the Government. . . . These circumstances impose upon the Bank the duty of a consideration of the public interest, not indeed enacted or defined by Law, but which Parliament in its various transactions with the Bank has always recognized, and which the Bank has never disclaimed."²¹ This statement, expressing as it did the attitude of the Government and of the financial community, effectually put an end to the idea temporarily prevalent in 1844 that the Bank was to be managed as an ordinary joint stock bank. As Weguelin later pointed out, the conduct of the Bank remained essentially the same as before 1844.²²

But though the Currency School adherents conceded that the Bank was a national institution and that it should give first consideration

though ineffectually, to revive the doctrine that the Bank was like any other bank.

¹⁵ Ev., H.C. 1848, qs. 2651-54.

¹⁶ Ev., H.L. 1848, qs. 2769-71; 1857, qs. 2893, 2964, 2978.

¹⁷ Ev., H.C. 1848, qs. 5190-92, 5265.

¹⁸ Ev., 1857, q. 4149.

¹⁹ January, 1856, *Tracts*, pp. 328-329.

²⁰ *Peel's Bill Explained*, pp. 25-26.

²¹ First Report, H.C. 1848, p. iv.

²² Ev., 1857, q. 1293. However, he stated that the Act forced the Bank to keep a larger amount of bullion than it might otherwise have kept (q. 878).

to the public interest, they formally denied that it was in the public interest for it to discount all bills offered. Morris stated that in October, 1847 "there appeared to be an idea that the Bank was bound to provide the public with notes, without considering that the Bank was limited in its operations, just as any other banking company." He added that it was no more required to support commercial credit than any other bank, though being greater in size it could do more.²³ McCulloch thought that the Bank could safely aid the commercial public only in rare instances.²⁴

Norman in 1848 stated that he objected to the Bank's being considered a lender of last resort.²⁵ In 1857, however, he said that the Bank was "supposed" to lend any amount on bills, subject to the rate and *échéance*.²⁶ Still later, upon being praised by the *Economist* for his supposed view that the Bank acquiesced to lending any amount, he stated that such praise was undeserved and that on the whole he agreed with the position maintained by Hankey. But he did not definitely deny that the Bank should discount all bills. He merely stated that he feared that the rate might not serve to check an undue demand upon the Bank, and contended that the bill brokers should maintain reserves.²⁷ Hubbard, some months before the panic of 1857, stated that the Bank, according to "popular apprehension," was bound to answer the claims of bankers and brokers for cash, but that the Bank no longer recognized that claim.²⁸ Much of the force of this statement was taken away, however, by the fact that the Bank a short time later did recognize such a claim.

The City never accepted the view that the Bank was not the lender of last resort. "A Banker," writing in the *Economist*, stated that the practice in Lombard Street was based upon the idea that the Bank would discount any amount of bills.²⁹ In answer to Hankey, who

was contending that the Bank was not obliged to give unlimited assistance, Chapman stated: "I say that we should make provision in our currency that the commercial business of the country should be maintained, which cannot be done if people cannot discount bills of exchange."³⁰ Salomons stated that it is "so thoroughly ingrained in the minds of the commercial world, that whenever you have good security it ought to be convertible at the Bank in some shape or way, that I have very great doubt indeed whether the Bank can ever take a position to refuse to assist persons who have good commercial securities to offer."³¹ Inasmuch as these were the statements of the head of the leading discount house and of a director in the leading joint stock bank, they carry considerable weight. The Select Committee of 1858 referred to the Bank as the "bank of last resort at a time of panic."³²

Hankey, a former Governor, continued to argue that the mercantile community must not depend upon the Bank to convert their future promises to pay into immediate payment when they allowed their own ready funds to become exhausted. The *Economist*, in his opinion, had put forth the "most mischievous doctrine ever broached," viz., that it was the proper function of the Bank to keep money available at all times to supply the demands of bankers who had rendered their own accounts unavailable.³³ The more nearly the affairs of the Bank were managed like those of every well-managed private bank, the better for both the Bank and the community. It is to be noted, however, that despite Hankey's and Norman's criticisms of existing practices, they did not assert that the Bank would not give aid in emergencies; and the Bank of course continued to give such aid. Indeed, except for short periods in 1825 and in 1847 the Bank had never during the century refused to discount whatever amount the public demanded.³⁴ In each of these periods refusal of aid was owing to legal limitations and

²³ Ev., H.C. 1848, qs. 2642, 3348.

²⁴ "Money," *Encyclopædia Britannica* (8th ed., 1858), xv, 471.

²⁵ Ev., H.L. 1848, q. 2746.

²⁶ Ev., 1857, qs. 3527-29.

²⁷ Letter in the *Economist*, December 22, 1866.

²⁸ Ev., 1857, q. 2380.

²⁹ "On the Insufficiency of the Bank Reserve," *Economist*, November 28, 1857.

³⁰ Ev., 1857, q. 5183.

³¹ Ev., 1858, q. 1163.

³² Report, 1858, p. viii.

³³ *Principles of Banking*, pp. 25-30.

³⁴ Rationing credit to individuals was not necessarily a violation of this rule.

entirely with the Bank, but the next best arrangement, he thought, was to place a relaxing power in the hands of the Government. He added this prophetic statement: Precedent having been set, the public would always look forward to the Treasury Letter and there would be constant endeavors to break through the restriction.⁴³ Gurney was solidly of the judgement that there should be a relaxing power.⁴⁴

The Currency School, though generally approving the Letter,⁴⁵ objected to incorporating a relaxing clause in the Act. The Commons Committee failed to recommend any. Loyd thought that the existence of a relaxing clause would cause the power to be used prematurely and therefore perniciously. The efficacy of suspension was owing to its bold and impressive character.⁴⁶ Norman, Torrens, Morris, and Cotton also thought that a relaxing clause in the Act would lead to relaxation on too slight a provocation.⁴⁷ As it was, Cotton thought, the Letter had been issued too soon.⁴⁸

Again, therefore, we see a certain convergence in the views of the defenders and the opponents of the Act of 1844. They agreed that the Act could not always be followed. They disagreed only upon the machinery for suspending it and upon the degree of pressure which should be undergone before such a step was taken. This disagreement was prominent immediately after the panic of 1847, but after another decade the matter was considered much less important. Weguelin, though not in agreement with the theories of the Currency School, stated a year before the panic of 1857 that a

relaxing clause was unnecessary, since the public believed that the Act would be suspended again during a panic. Possibly some advantages might be derived from laying down rules as to how the power should be exercised. He did not recommend making the change.⁴⁹

During the panic of 1857 both the Bank and the public, according to Neave, acted upon the conviction that the Treasury Letter would be issued if necessary. The Government without giving direct assurance intimated to the Governor that the Letter would be issued if needed. As Sir Francis Baring, an opponent of the principle of the Act, pointed out, the lack of a relaxing clause made the discussion of suspending the Act a delicate matter between the Governor and the Government.⁵⁰ The Bank had not asked for suspension during the panic of 1847⁵¹ and it did not ask for it now, but merely kept the Government informed.

After the panic of 1857 the question of changing the machinery of relaxation again arose.⁵² Neave advised against making any change. Though believing that the Letter was necessary and that delay in issuing it would have rendered such a measure inadequate, he thought that it was better not to leave it to the Bank to give relief, as the directors would be pressed to give it earlier than they should. Also, when the Ministers realized that they were breaking the law they were slower to give relief.⁵³ That is to say, relief was sometimes necessary but, if

⁴³ Ev., H.L. 1848, qs. 1875-94. Glyn suggested, however, that the constitution of the Court should be changed so as to include Commissioners appointed under act of Parliament. They were not to have a veto over the action of the Court, but were to lay before Parliament a statement of their dissent from the views of the Court (qs. 1782-85).

⁴⁴ Ev., H.L. 1848, q. 1201.

⁴⁵ McCulloch, however, in his article on "Money" in the eighth edition (1858) of the *Britannica* thought that the suspension of the Act in 1847 was of doubtful value (xv, 467).

⁴⁶ Ev., H.C. 1848, qs. 5149-59. See also his Ev., H.L. 1848, q. 1520; Letter to the *Times*, January, 1857, *Tracts*, pp. 353-357.

⁴⁷ Norman, Ev., H.L. 1848, q. 2798. Torrens, *Peel's Bill Explained*, pp. 54-56. Morris, Ev., H.C. 1848, q. 2719. Cotton, H.L. 1848, qs. 3285-86.

⁴⁸ Ev., H.L. 1848, q. 3187.

⁴⁹ Letter to G. C. Lewis, Chancellor of the Exchequer, Nov. 10, 1856, Report, 1857, app. 1. Patterson also stated that there was a general belief that the Government would suspend the Act if matters grew worse ("The Gold-Screw, and its Consequences," *Blackwood's*, vol. LXXIX, 1856, p. 4).

⁵⁰ See Neave, Ev., 1858, qs. 87-253, for the circumstances connected with the issue of the Letter in 1857. Chapman stated that Overend, Gurney, and Company had a tacit understanding in 1856 that the Government would give relief if any real press came. He did not disclose from whom the assurance came. It did not come from the Bank or from any one directly connected with the Government "but still from a person of such standing that I could not misunderstand it." (Ev., 1857, qs. 4915-20.)

⁵¹ Morris, Ev., H.L. 1848, qs. 40-41.

⁵² During the inquiry just before the panic Chapman had suggested as a substitute for the law limiting the note issue an arrangement for the automatic increase of Bank rate on a sliding scale as the bullion reserve was reduced, similar in principle to Bosanquet's suggestion to Peel (Ev., 1857, qs. 4987-5012).

⁵³ Ev., 1858, qs. 149-151, 222-223.

the giving of it were placed formally within the power of either the Bank or the Government, pressure from the public would be difficult to resist.⁵⁴ This was the reasoning adopted by the Select Committee in 1858. The question was not as important, they believed, as it once was. A relaxing clause would not in their view be a violation of the principle of the Act. Nevertheless they were "satisfied to leave in the discretion of the Executive Government, the time and prudent opportunity of giving further effect to those principles by which the convertibility of the Bank of England note has been kept above suspicion."⁵⁵

4. *Controversy over the Bank Act Recedes into the Background*

As time went on less was said about the original purposes of the Act,⁵⁶ and more was said about its providing a reserve for emergencies. Cardwell, chairman of the Select Committee in 1858, stated that, while the Act did not prevent the public from having an adequate supply of notes under ordinary circumstances, it did secure the maintenance of a larger supply of bullion which could be used in case of panic. This was virtually the position taken by Weguelin and Neave.⁵⁷ Such a view was in keeping with the statements frequently repeated by the Currency School since the panic of 1847, that without the Act the Bank's bullion would have been still lower than it was when the stringency

became acute.⁵⁸ Thus the real difference of opinion turned upon the question of how much pressure should be endured before this emergency reserve should be used. It should be noted that all parties (with the possible exception of Palmer, Baring, and Cairnes) believed that contraction was the proper remedy under all circumstances for an outflow of bullion.⁵⁹ The idea of an emergency reserve loses force once it is realized that the more drastic contraction intended to preserve the emergency reserve may actually increase the external drain. This point is dealt with in considering the theory of the central reserve.⁶⁰

The fact that the controversy was receding into the background is indicated by the changing attitude of the directors and of the Select Committees of the House of Commons. In 1848 Morris stated that the directors were nearly evenly divided regarding the merits of the Act, though there had been no actual vote on the matter.⁶¹ But when Lewis asked for the individual views of the directors in 1856, Palmer alone expressed definite disapproval of it.⁶² Three other directors, Huth, Masterman, and Francis Wilson, suggested adding a relaxing clause. The others either approved the Act or at least felt that the matter was not important enough to warrant raising an objection.⁶³

In 1848 the Act narrowly escaped condemna-

⁵⁴ Loyd, *Ev.*, H.C. 1848, qs. 5117, 5136. Cotton, *H.L.* 1848, qs. 3169, 3186. Torrens, *Peel's Bill Explained*, p. 49.

⁵⁵ At an earlier period, however, Henry Thornton had taken the view that a too drastic curtailment would aggravate the foreign drain (*Paper Credit*, pp. 87-89. See also Chapter IX, *supra*).

⁵⁶ See Chapter XIV.

⁵⁷ *Ev.*, H.C. 1848, qs. 3169, 3446-47.

⁵⁸ Palmer stated that he had entertained an unfavorable opinion of the Act from the period of its enactment, which was confirmed by observing its operation. In a period of favorable exchange it had the effect of creating an undue expansion of credit, and in a period of commercial discredit subsequent to an unfavorable exchange it rendered the Bank powerless to meet an internal drain. Similar events, he thought, were likely to follow until the commercial credit of the country was brought to the brink of destruction, when an Order in Council would be inoperative in restoring commercial prosperity unnecessarily sacrificed. (Report, 1857, app. 1.)

⁵⁹ Report, 1857, app. 1. Such other changes as were suggested did not involve the principle of limiting the note issue. Several of the directors desired to limit further the provincial issues.

⁵⁴ Patterson, writing in the January (1856) issue of *Blackwood's*, stated that the chambers of commerce in Liverpool, Birmingham, Nottingham, Edinburgh, Glasgow, and other leading towns were passing resolutions calling upon the Government to suspend the Act ("The Gold-Screw, and its Consequences," *Blackwood's*, LXXIX, 9).

⁵⁵ Report, 1858, pp. xxvi-xxviii.

⁵⁶ The intention of the sponsors of the Act was to insure that the circulation varied with the bullion. This purpose, the Currency School claimed, had been accomplished (Morris, *Ev.*, H.C. 1848, q. 3507; Torrens, *Peel's Bill Explained*, pp. 12, 151). As we have seen, the practical content of the question whether the circulation varied with the bullion was whether the Banking Department was reduced to the position of an ordinary bank. Though the Currency School admitted that the Bank was not like an ordinary bank, they continued to hold (formally) that the reserve in the Banking Department should be considered a part of the circulation (Loyd, *Ev.*, 1857, qs. 3890 *et seq.*).

⁵⁷ Examination of Neave, *Ev.*, 1858, q. 835. Neave assents to this statement. See also his answers to questions 58-59. See Weguelin, *Ev.*, 1857, qs. 877-879.

tion by the Commons Committee on Commercial Distress,⁶⁴ and was virtually condemned by the Lords Committee.⁶⁵ The Report of the Select Committee in 1858 was conciliatory in tone but recommended retaining the Act as it stood. Only two members voted against the Report.⁶⁶ Even James Wilson, who had denounced the Act repeatedly in the *Economist*, voted for the Report.⁶⁷ Thus many who opposed the principles upon which the Act was founded thought that the Act itself was satisfactory. This was the position of Weguelin.⁶⁸ Mill thought it was the principle behind the Act which was mainly objectionable, though he favored repeal.⁶⁹

By 1858, Fullarton, Alexander Baring, Gurney, Tooke, and Palmer were dead. A new generation were taking charge who saw no practical difficulty in operating under the Act, particularly since they realized that it would be suspended if necessary. Moreover, the problem of monetary control was becoming less

pressing as the supply of gold increased. Contemporary writers were aware of this. Alison pointed out in *Blackwood's* that the danger of a disastrous drain upon the Bank was not so great.⁷⁰ Tooke believed that without the Australian gold discoveries the Act would probably have been repealed.⁷¹

The real purpose of the Bank Charter Act of 1844 had been to get rid of the discretionary management of the currency and to provide for its automatic functioning according to natural law. It was a sequel in fact to the attempt to abolish the discretionary control which had existed during the Restriction period. Once it was seen that Cash Payments alone did not provide stability and did not get rid of the necessity for making monetary decisions it was hoped that this object might be attained by suppressing the central banking functions of the Bank. However, experience with the Act of 1844 showed that there was no way by which discretionary monetary control could be avoided.⁷² As Weguelin pointed out, though the Act was retained, the principles governing the management of the Bank remained as before 1844.

⁶⁴ See the Proceedings of the Committee. On a motion by Hume that the Committee resolve that the Act had aggravated the distress, there were 11 ayes and 13 noes, with Sir Francis Baring in the chair, who was probably opposed to the Act, not voting. See also Tooke's discussion, *History of Prices*, vol. vi, app. xii.

⁶⁵ Report, H.L. 1848, sec. xiii. The Committee stated that they desired to see wider discretion vested in the Bank.

⁶⁶ Spooner and Cayley. They had also voted against the Act as members of the Committee on Commercial Distress in 1848. See Proceedings of the Committees.

⁶⁷ He had voted with the minority against the Act in 1848.

⁶⁸ Letter to Lewis, Report, 1857, app. 1.

⁶⁹ Ev., 1857, qs. 2108, 2043-43. He would have removed the restriction from country issues as well as from those of the Bank.

⁷⁰ "The Currency Extension Act of Nature," *Blackwood's*, vol. LXXIX (1851); "Gold," etc., vol. LXXII (1852).

⁷¹ *History of Prices*, v, 593.

⁷² Cairnes pointed out that no rule however ingeniously contrived could supersede the necessity for the discretionary control of the currency. There "is doubtless something in the notion of a self-acting system that conduces to the serenity and self-glorification, perhaps, of its framers." But it must be remembered that, while the hands of the Bank are tied in times of pressure, the system is as much liable as ever to the perils inseparable from discretionary power. (*Principles of Currency Involved in the Bank Charter Act of 1844*, pp. 67-68.)

GENERAL CONCLUSION

GENERAL CONCLUSION

THIS Conclusion will be concerned primarily with the theories of control and their criticism. A summary of the actual procedure of the Bank is given in the General Introduction. Matters of procedure will accordingly be referred to only in connection with criticisms of the theories. The contemporary theories on many detailed questions considered in the chapters have had of course to be omitted here.

The attitude on specific problems becomes much more understandable when we see what the assumptions were with regard to the international standard. These assumptions were frequently implicit rather than stated. It was believed in the first place that the world gold standard was a system governed by natural laws and that any influence which the Bank of England might exert was of a lower order of importance. In the second place it seemed to be reasoned that the value of gold, taking the world as a whole, was relatively stable. It was not of course assumed that the value of gold was constant, but that such variations as occurred would not impose the necessity of greater adjustments in the economic system than could easily be made. Moreover, it was assumed that such sacrifices as were necessary to maintain the gold standard were well worth making, considering its advantages. There were of course dissenters from this doctrine, but their influence became weaker as the period of paper currency became more remote.

Bank of England policy, therefore, was regarded as a means of maintaining the most satisfactory contact with the international standard, which was itself governed by natural laws and not by decisions made in London. This attitude helps explain many particular elements of contemporary theory. For example, it helps to explain why at one period the Bank was expected to control the amount of its securities by means of the rate. It explains why the question was raised whether the Bank should "interfere" in the discount market

or remain aloof from it. And of course it explains the great faith in the ability of the rate to correct the exchanges.

In the theories of the procedure of internal control the main problem was the choice of appropriate measures of results. Were recorded changes in the currency or the state of the money market the most appropriate test of the pressure required? The desire to control the actual quantity of currency is reflected, for example, in the attitude toward the country bank circulation. It is reflected again in the theory that the Bank should not be primarily a bank of discounts. After the separation of the departments it was no longer considered that the Bank regulated the circulation but that it exerted such influence as it possessed by means of the rate. From about this time differences of opinion centered about the question of how responsive Bank rate should be to changes in the reserve.

Control over Country Banks

Let us consider the theories of the relation of the Bank to the country banks. The predominant view during the Restriction period was that the country circulation had to conform to that of the Bank. It was not supposed that there was any exact quantitative relationship but that the country banks were compelled to maintain prices in their districts in equilibrium with prices in London. Thus equilibrium was not asserted to be with the Bank direct but with the financial center, which was in turn under the control of the Bank. In my opinion this was an important contribution. Modern monetary theory generally stresses the relationships of the country banks with the central bank direct and makes little use of the fact that their cash position (and liquidity as a whole) is governed to a large extent through the financial center. It seems unfortunate that the suggestions of early nineteenth-century writers in this respect have not been followed up. Where the older theory is most open to criticism is in stress-

ing the point that the equilibrium to be maintained was one of prices. The objection is that a disequilibrium of money outlay would have weakened the reserves of the country banks before being registered in a disequilibrium of prices.

After the return to Cash Payments the theory of note and deposit expansion of a system of banks was more fully developed by Pennington, Joplin, and others, and this theory stressed the need for maintaining an equilibrium of country bank *reserves to liabilities*. The theories during the Restriction period had not emphasized reserve equilibrium as such. Palmer, Gilbert, and others emphasized the influence of the Bank over the country banks through the medium of cheap credit. Low rates in London led to low rates and increased employment of money in the country with a consequent increase of the country circulation. That is to say, the equilibrium which the country banks had to maintain was in their view one of *money rates*.

But the theories of the control of the country circulation after 1825 tended to insist more and more that the Bank's control was loose and inefficient. Also the part played by the financial center in the mechanism of control was given less attention. There was in fact a gradual shift in the statement of the problem so that, instead of asking whether the country banks were sensitive to the Bank of England via conditions in London, the question was raised whether the country banks were sensitive to the foreign exchanges. The question implied that the country banks ought to have been concerned directly with the problem of international equilibrium.

The critics of the country banks claimed also that their issues collided with those of the Bank and thus further weakened control by the latter. The Bullionists during the Restriction period, anxious to hold the Bank responsible for inflation, had insisted that competition between the two kinds of issues was not great enough to impair control. After Resumption the Currency School, desiring to suppress all currency management, joined the Bank officials in holding that the two kinds of issues competed, that the effect of a contraction by the Bank might be offset by an expansion of

the country issues. The country bankers, on the other hand, argued that their notes were issued only for local payments and that they circulated mostly in the agricultural districts where few Bank notes were in use.

The country bankers did not claim that their issues as such were under the control of the Bank. They said that their issues were governed by the demand. They were correct in so far as they meant that money restricted by custom to serve as pocket money need not be specially limited, efficient control over general purchasing power being assumed. But at times they seemed to take the quite untenable position that country issues considered as general purchasing power were limited by the demand. Such was not their main argument, however. Though insisting that their *issues* were limited by the demand, they pointed out that their *advances* were governed by the condition of their reserves, and that their reserves were affected by the operations of the Bank. But they denied that their advances had any monetary aspect. This was their fundamental error. Inasmuch as the country bankers, however, were not charged with the responsibility of monetary control it would seem to have been of no consequence whether they admitted the monetary aspect of their operations or not. But their critics, considering all bank notes and coin taken together as the basis of the nation's credit system, insisted that since the country bankers did not and could not regulate their issues with reference to the foreign exchanges—which alone was regulation in the public interest in the Currency School view—those issues should be suppressed.

Silberling, Angell, Feavearyear, Thomas, and modern writers very generally have also taken the view that the country banks were not under effective control. Briefly, their reasons are that the country banks held very inadequate reserves and that their notes competed with those of the central bank. Viner, however, holds that the country banks were under the control of the Bank, though not in a wholly satisfactory manner, since, by reducing their reserve proportions, they could temporarily expand their issues and thus tend to cause a rise of prices. Nevertheless he believes that the Bank could have counteracted this tendency

by contracting when the other banks showed signs of overexpanding.

I believe the conclusion that the country banks were not under effective control is essentially mistaken. I have tried to show that the necessity of adjusting the country banks' reserves to rigid reserve requirements was not an essential condition to limiting their expansion. Their rate of expansion was governed by their condition of liquidity as a whole, and the latter was determined by the state of the commodity and security markets and by credit conditions in the financial center. While a change in their liquidity preference would have given them a certain freedom of action, they could not have gone far in this direction for the reason that they had so many points of contact with London. Besides they were not likely to take a bullish stand when London was bearish. Though I agree in general with Viner's position as against that taken by most modern writers, I believe he attaches too much importance to the relation of cash reserves as such to requirements.

The crucial question is whether the variation in the country circulation¹ caused gains or losses of reserve funds to the money market (through the release or absorption of Bank notes in the country) of greater magnitude than could be easily taken care of by the Bank's procedure of control. If we suppose that the Bank was trying to establish its circulation at some predetermined level, the problem seems difficult to solve, for the variations in the country circulation were of the same order of magnitude as the variations in the Bank circulation, so that a slight unexpected change in the former would upset the Bank's calculations. But once it is realized that the Bank made no attempt to supply a predetermined amount of notes to the public and could not have done so, but that the public had various modes of access to the Bank and that reserves were adjusted to requirements at any given time, the problem offers no special difficulty. Variations in the country circulation are seen to be in the same category for this purpose as variations in the different nonreserve deposit accounts at the

Bank, such as traders' deposits or the account of the East India Company.

Modus Operandi of Bank Rate and Security Operations

Let us now turn to the manner in which it was supposed that the central bank could influence the credit and price situation. We shall consider first the *modus operandi* of creating a given pressure upon the money market. Then we shall consider the manner in which monetary and credit changes were supposed to affect prices and the degree of sensitiveness of prices to credit changes.

Immediately after Resumption discount rate and security operations were regarded merely as instruments for regulating the circulation. It was supposed that the Bank produced pressure not only via a reduction of the circulation but that the amount of the reduction was the appropriate criterion of the extent of the pressure. This continued to be the Currency School position until 1844. But among other observers, including some of the directors, there was a gradual tendency from about 1832 to regard the rates in the money market as the proper criterion of policy. With Tooke and his followers this idea was extended to mean that the circulation had nothing to do with the terms of credit established in the money market. But by most observers before 1844 it was reasoned that, though the rate was the proper immediate guide for the Bank, particularly in periods of pressure, the currency was the medium through which it made its pressure felt.

The significance of London bankers' balances from the standpoint of control was left out of account by most observers. Though the matter was explained by Pennington and a few others, their discussion made little impression upon their contemporaries. However, it was more frequently pointed out — for example, by Gurney, Baring, and Glyn — that Bank balances were quite as available to the London bankers as notes in their till. Whether it was meant that balances therefore had the same effect upon the money market is not altogether clear, but I do not believe that they drew such a conclusion. Certainly the Currency School did not agree to such an interpretation. Loyd and Norman, for instance, denied that it was proper to con-

¹ Really, for this purpose, whether a variation in country notes *not compensated* by a variation in the demand for currency as a whole was too great.

sider bankers' balances as part of the base of the credit superstructure. They were to be regarded as part of the superstructure, which rested upon a foundation of notes and coin. Thus they were supposed to have the same order of influence as the nonreserve deposits of the Bank or the deposits of the other London banks. Moreover the Currency School, along with practically all others, ignored the fact that the Bank itself created deposits. Even those who stated explicitly that an increase of the Bank's securities might involve simply an increase of deposits would at other times consider that the amount of deposits depended upon the action of the public and the banks.

The reason why the significance of reserve deposits was not appreciated was partly owing to the fact that they represented a comparatively new development. According to Tooke, London bankers held all of their reserve in the form of notes until 1825. For many years after that London bankers' balances were quite small in comparison with note reserves. But even after balances became a much larger proportion of total reserves they were neglected in the theory of control. This applies not only to the evidence given before the Select Committees in 1857 and 1858 but to that given before the Gold and Silver Commission in 1887. Nor does one find in the discussions of the Bank's influence in the money market by such well-known writers as Bagehot, Jevons, Palgrave, Giffen, Nicholson, or MacLeod any explanation of the role of bankers' balances. Interest during that period was primarily in external equilibrium and not in the Bank's procedure of internal control. The special problem which occupied attention was how large the reserve should be for meeting a drain and whether the other banks and the discount houses should not share more in the burden of maintaining it.

After 1844 there was an increasing tendency to state that the Bank's influence upon the money market arose from its position as a large lender of capital rather than as the manager of the currency. The growing importance of London bankers' balances was undoubtedly one reason for the change in interpretation. But this factor should not be overstressed. The London bankers continued to hold much the larger part of their reserves in the form of Bank

notes. Perhaps the chief reason for considering that Bank policy was not monetary policy was that the Bank could enforce its terms without any obvious change in bankers' cash in *either* form. The market took what funds it required from the Bank to meet reserve requirements, which under ordinary circumstances did not change quickly, aside from seasonal changes. And, when there was an important increase of bankers' cash, it might be associated either with a condition of excess reserves (and credit relaxation) or with an increase of requirements accompanying credit restriction. Even the possibility of squeezing out the banks' excess reserves by the Bank was apparently not noticed. What attracted attention was the amount of accommodation given to the market and the rate charged.

Another reason for the change of interpretation after 1844 was the formal position of the Currency School that the Act of 1844 had abolished the management of the currency. They now stated that the Bank could give aid by virtue of its position as a large lender of capital. Though they continued to reason at times that the aid took the form of currency, which resulted in a reduction of the reserve, for the most part they too emphasized the loan aspect of the Bank's operations. More and more they insisted that pressure on the money market was owing to a shortage of "capital" and not of currency. Their position is not easy to define for the reason that it was undergoing a gradual change.

Thus there was a tendency on the part of the various groups of opinion to hold that Bank policy was not monetary policy, but that the Bank influenced the money market in essentially the same manner as any other bank. The fact that its influence was greater was thought to be owing to its importance in the discount market, to the fact that it held most of the reserve available for meeting a drain, and to its moral prestige.

The Bank's Influence upon Prices

Let us turn to the *modus operandi* of the Bank's influence upon prices and the extent of such influence. Contemporary theory dealt with what we should today consider some of the more important problems relating to the dy-

namics of price changes. To begin with, there is the problem of what is to be regarded as the appropriate criterion of inflationary (or deflationary) action. Is the cost of credit or the supply of balances to be considered the appropriate criterion? And if the rate is taken to be the guide, what is the standard by which to judge whether it is low enough to be inflationary? In the second place, there is the question of what points in the economic system are sensitive to credit changes. For example, are security dealers more sensitive than commodity dealers? Both of these problems were dealt with by contemporary writers to some extent, though the differences of opinion chiefly concerned the question whether commodity prices were responsive to credit changes at all, or at any rate to a workable degree.

In regard to the first question, there was a growing tendency to emphasize the influence of low rates or greater "facility" of credit, rather than the supply of balances as such, upon the volume of commitments and prices. But the effect was stated both ways. I do not believe it was intended to imply that either was to be considered as the *real* cause, but that a reduction of rates and an increase in the amount of the means of payment were associated. It is to be remembered that in London particularly traders' bank balances were adjusted to what was considered a proper amount to remunerate the banker for handling the business transacted. The working reserve of traders consisted for the most part of bills that were discountable in the London money market. Since the traders were either in debt to the market or else the holders of a variable amount of bills, it was difficult for the banking system to force upon them an excess of balances, as the excess would be used directly or indirectly to cancel traders' indebtedness to the banks. Hence, to begin with, expansion was more easily visible in the form of cheaper credit (or greater willingness to discount on the part of the banks where rates were "sticky") than in the amount of balances. Moreover no sharp line was drawn between deposits and other credit expedients.

The spokesmen for the Bank denied before the Bullion Committee that the rate of profits needed to be considered in fixing Bank rate. Later Gilbert, Fullarton, and some of the coun-

try bankers insisted at times that it was the (commercial) quality rather than the cost of the credit extended which needed to be guarded, though they did not maintain such a view consistently. But the prevalent view, particularly in responsible quarters, was that an undue depression of the rate would promote speculation in some form at least and would require restrictive measures. No attempt was made to explain in detail how one was to determine whether a given rate was at the proper level. After all, there was no standard by which to judge whether a given rate was inflationary or deflationary except by observing the end product, viz., whether business was actually expanding or contracting. The "natural rate" with which the market rate is compared in more recent theoretical discussions is only a logical derivative and not a fact of direct observation. It seems doubtful, therefore, whether the older theory was less useful in not defining elaborately the meaning of a discrepancy between the natural and the market rate, but in stating simply that cheap credit tended to stimulate speculation, it being understood that cheap credit was a relative term.

Just where the economic system was sensitive to credit changes was not considered a question of primary importance. Nevertheless some attention was given to it. Joplin, for example, held that the cost of credit affected the willingness of traders to hold stocks of goods. Speculation in goods, he stated, gave rise to expenditure, expenditure to income, and income spent reproduced income. Gurney and Palmer mentioned commodity dealers as sensitive to the rate. Loyd thought that cheap credit affected security prices first, then speculative commodity prices, and finally prices generally. Bosanquet apparently believed that a relatively low rate would increase the demand for goods generally, though he gave special attention to the demands of traders, presumably for stocks of commodities. Tooke (in his later writings), Mill, and Hubbard, however, argued that cheap credit would affect security prices but not commodity prices. There was general agreement that the rate affected the prices of securities. Tooke noted the effect upon the volume of new enterprise, but he failed to connect such expansion with higher commodity prices. Though Tooke

did not make his position altogether clear, I believe that what he really had in mind was that a disequilibrium of international payments would cause a drain before it would have time to be reflected in a disequilibrium of prices. Fullarton, however, held that cheap credit would affect the purchases of traders, and especially that it would lead to the starting of new enterprise and then spread to speculation in goods. But he apparently regarded the low rate as arising from a plethora of real capital rather than from monetary causes. More commonly, the writers of the period referred to the effect of cheap credit upon speculation generally without specifying any particular class of speculative commitments.

It is to be noticed that, though the Currency School formally held before 1844 that only a change of the currency would bring dependable corrective action upon prices, in discussing the details of price inflation they reasoned that a change in the currency operated through the credit superstructure and the money market. Mill's statement that they assumed implicitly that only currency affected prices does not seem to me to be justified.

Thus we find the beginnings of a great many of the recent theories dealing with the dynamics of price changes, such, for instance, as one finds in the works of Marshall, Wicksell, Cassel, Hawtrey, and Keynes. But the older writers were not interested primarily in analyzing the exact process by which a rise of prices was produced. They were concerned chiefly with avoiding an expansion not warranted by the conditions of international equilibrium.

Theories of Discount Policy

The discussions of the procedure of internal control involved chiefly the question of the proper criteria of pressure. As has been pointed out, Bank policy at the time of Resumption was thought of as essentially currency policy. It was natural, therefore, that the instruments of policy should have been considered simply a means of establishing the circulation at some desired level. In 1819 the directors believed that if they could be relieved of the obligation to aid the Treasury they could control the amount of the circulation by means of discounts. Discussion in the 'twenties concerning

the advisability of more frequent variations of the rate and the abolition of the 5 per cent maximum presupposed that it was the volume of discounts which it was desirable to control and not the rate as such. At times the discussion seemed to presuppose that the market rate was an independent variable and that the Bank could adjust its discounts by rate changes in much the same manner as an ordinary lender. This supposition was owing in part to the belief that gold movements were extremely sensitive to a change in the circulation.

The idea that the Bank should have some procedure for controlling the amount of the circulation, or at least for insuring that a change in the circulation should not be initiated by an untoward change in securities, still prevailed in the discussions in 1832. But in the meantime the directors had become convinced that they could not control discounts by means of the rate. They were therefore opposed to the Bank's discounting to any appreciable extent under ordinary circumstances. With this end in view, Bank rate was to be maintained above the market rate. The Bank would make "investments" in public securities (or even in commercial bills so long as they were bought in the open market) but not grant "accommodation" extensively at the initiative of the borrower. In order to compensate for such variations in discounts as did occur under existing procedure they proposed to buy or sell securities. Their position was that they could give a certain amount of aid to commerce without permitting a growth of total securities. Such an attitude was not consistent, however, with their admission that the sale of securities increased the demand for discounts. The directors did not, either in 1819 or in 1832, satisfactorily explain their apparently contradictory statements in this respect.

Such was the announced procedure for normal periods. As to what policy should be followed during periods of pressure, opinion was divided even among the directors, and during the remainder of the period until 1844 this division became more pronounced. Palmer, for example, insisted that in periods of pressure the Bank — being at such times the "main support of commerce" — should rely upon raising the rate and give such accommodation as was de-

manded at the rate fixed. Norman, on the other hand, held that the support of commercial credit in periods of emergency was incompatible with the Bank's obligations as a regulator of the supply of currency. When the Currency School became convinced that the obligation to support commercial credit could not in practice be disregarded they determined to reduce the Bank to the status of an ordinary London bank.

It is thus clear that the main difference between the two points of view was that they presupposed different criteria of appropriate corrective action: Palmer and his supporters holding that the state of the money market was the proper test, and the Currency School holding that the proper test was the amount of the currency. The Currency School insisted also that control should be automatic, but that so long as the Bank depended merely upon advancing the rate the management must necessarily be discretionary.

After the Act of 1844 the same general theoretical differences were involved but they took on an altered form. The Currency School's premise that the proper criterion of corrective measures was the level of the currency now was changed to mean that the Banking Department should not — at least to any important extent — absorb the shock of gold movements. Any change in the amount of bullion ought to be reflected in a change in the reserves of *all* the banks and not merely in the reserve of the Bank. Nevertheless the immediate test of the Bank's policy was no longer considered to be the level of its note issue. The Currency School formally held that the Act of 1844 had removed the currency from the sphere of discretionary control. Bank policy was now considered by them also to be mainly rate policy.

Practically, therefore, the main differences were over the question of how closely the Bank should be guided by its reserve in regulating the rate. The question was stated in varying forms: Should the Bank compete actively for discounts? Should it lead or follow the market? Should Bank rate be kept above the market, and should it ever be reduced below 4 per cent? The Currency School argued that the Bank could with propriety compete with the discount market so long as its reserve was maintained at an appropriate relation to its liabilities, and

that it should take severely restrictive measures when necessary to restore the proper reserve proportion. Palmer, Tooke, and other critics insisted that the Bank should not compete with the discount market, but should keep the rate above the market in periods of credit ease and allow its bullion to increase. Thus it would avoid giving an undesirable encouragement to speculation, they believed, and then if a drain did occur the Bank would be in a position to meet it without having to resort to severe measures. It must be remembered, however, that this difference in views became more and more formal after the discussions immediately following the panic of 1847. The Currency School agreed that the Bank should not enter into very active competition with the market in the attempt to employ its reserve closely. And on the other hand, directors who, like Weguelin, more definitely objected to the Bank's competing for discounts did not believe that the new procedure necessarily implied active competition.

There were really two different questions involved here. The question whether the Bank tried to employ its reserve closely instead of absorbing the shock of gold movements had no necessary connection with the kinds of channels by which it permitted the banks to adjust their reserve position. But in contemporary discussion they tended to become confused, particularly immediately after the panic of 1847. Critics of Bank policy such as Palmer and Tooke assumed that the narrower differential between Bank rate and market rate, and particularly the reduction of Bank rate below 4 per cent, meant that the Bank necessarily was making undue efforts to employ its reserve more closely. And the Currency School, including Governors such as Morris and Hankey, defended the new discount procedure on the ground that the employment of the reserve closely was in keeping with the Bank's position as an ordinary bank.

I believe the confusion arose from their not appreciating the fact that the Bank necessarily was responsible for the terms of credit at any given time. Let us recall that in the period before 1844 keeping Bank rate above the market in the sense that the discount houses or even merchants with best bills did not find it profitable to discount at the Bank did not mean

that the Bank did not provide the banks with an important margin of reserve through other channels and *in response to conditions in the market*. The reason why first class bills were not taken to the Bank more frequently was that reserve cash could be obtained through these other channels with less pressure.

The effect of the new discount procedure was that the Bank was in a position to discount a finer grade of bills. Before 1844 only bills of less well-known names were brought to the Bank in periods of credit ease. These continued to be eligible but they were charged a higher rate than the official minimum. The change in itself was only a matter of technical procedure and implied nothing regarding the general level of rates that would be made effective.

Criticism of Recent Interpretations of the Bank's Procedure

It is upon the question of the Bank's controlling the effective terms of credit in the market that I find most to disagree with in the more recent studies of this period. Feavearyear and King, for instance, seem to reason that the market rate was established rather independently of the Bank, and that the Bank by varying its rate could regulate the volume of discounting.² They interpret a market rate higher than Bank rate as evidence that the Bank was competing, and a differential the other way as evidence of little competition. This view seems to follow partly from their assuming that the market rate was governed primarily by the rate in the international market. Thus the Bank, they reason, by raising the rate would replace bills with gold, and by lowering it take bills at the expense of gold. But a question of internal control is also involved. I do not believe that these writers appreciate fully the extent to which the banks were dependent upon the Bank's supplying reserve cash through some channel or other. Perhaps too exclusive attention has been given to discounts for the London money market. There were other channels for obtaining Bank funds: discounts for London and country traders whose bills would not command the open-market rate; discounting for

country banks under Bank rate; advances to the discount houses, security dealers, and others at less than Bank rate; the refusal of a portion of Exchequer bill offerings by the market, forcing an increase of Bank advances to the Treasury. In view of this dependence upon the Bank, raising the question of its competing with the market does not seem to put the matter in a true light. The Bank governed the market. Whether minimum Bank rate was above or below the market rate for prime bills was a question of technical procedure.

King states that there was a decided change in policy after 1847: that, whereas the Bank competed with the market from 1844 to 1847, during the period from 1848 to 1856 it for the most part avoided "interference with the outside market." As evidence of the change he points to the fact that Bank rate was lower than market rate on the average during the first period, but higher during the later. But the more conclusive proof of reduced competition is given, he believes, by the reduction in the amount of discounts.³ In my opinion the large increase of discounts and advances during 1844-1847 was owing to the large absorption of funds from the market from three main sources: the decline of Treasury advances; the increase of the railway deposits (for the account of the Court of Chancery); and finally the drain. No matter what Bank rate might have been, the market would have had to obtain funds from the Bank on a vast scale. The fact that the market rate was higher than Bank rate a part of this period was due to the large indebtedness of the discount houses combined with the shortening of the term of advances from ninety to ten days. When the discount houses had to pay Bank rate for carrying bills they, as well as the London banks, would be charging higher than Bank rate. I believe with King, however, that the attitude of the Bank officials toward discount policy changed decidedly after 1847.

Theories of International Monetary Equilibrium

Let us turn to the theories of the mechanism of control of the foreign exchanges. Until about 1840 the commonly held view was that the Bank

² Gregory and Aretz also assume at times that by varying Bank rate in relation to market rate discounts can be controlled.

³ *History of the London Discount Market*, pp. 161-169.

protected the exchanges by inducing the necessary correction in commodity prices. It was realized much earlier that the international flow of capital—for example, England's advances to her allies—involved an appropriate policy to bring about the transfer in goods, but it was not commonly stated that the flow of capital could itself be controlled by the Bank. One reason for this may have been that the most conspicuous capital movements occurred as the result of political considerations and could not be expected to respond to action by the Bank. The view that the Bank could correct the exchanges in part by influencing the rate of international lending was expressed by Rothschild and Tooke in 1819, but it did not become very common until about twenty years later. The belief that appropriate changes must be brought about in commodity prices was not generally given up, but it was thought that corrective action through capital movements came earlier and was the main dependence in case of a threatened sudden drain. Some writers, however, such as Tooke and Hubbard, held that corrective action through changes in commodity prices was negligible. But this view was not generally supported.

Judging by the frequent references to the matter by the Bank officials in 1848, the hope of attracting foreign capital by raising the rate entered into their calculations previous to the panic. The Prime Minister (Russell) also had referred to the sensitiveness of capital movements to the market rate as if it were a matter of common knowledge. But it was not until the inquiry of 1857 that the theory was examined critically (at least in public) and some of its limitations pointed out. Chapman, for instance, claimed that foreigners were not likely to take additional securities if their price fell in London. He stated also that it was not profitable for discount houses generally to transfer short time money from one market to another in response to changes in rate relationships. But he believed that London could restrict the amount of new foreign loans. On the whole he took the position that the net flow of capital could be controlled sufficiently for the purpose in hand, though he displayed less assurance than many others. Weguelin was very much in the minority in claiming that the international

flow of capital was not responsive to changes in credit conditions in London. Tooke and Norman both held that raising the discount rate was an "infallible" means of attracting foreign capital and correcting the exchange. And it must be noted that even Weguelin believed that the Bank could control the flow of gold by discouraging the amount of commodity bills drawn. There was thus no important difference in opinion regarding the ability of the Bank to influence gold movements among the orthodox supporters of the gold standard. There was only a disagreement as to the period of time required to influence a favorable flow of gold, and consequently as to the need for the Bank to have an exchange defense fund. The Currency School before 1844 reasoned as if the balance of payments could be turned in favor of England almost instantly. But after their experience during the panic of 1847 they moderated their claims.

Following partly from the difference in opinion regarding the length of time necessary to create a favorable balance of payments was the question of the need for a central reserve, considered as an exchange defense fund. A very important part of the controversy over Bank policy before the Act of 1844 concerned this point. Those who wanted to reduce the Bank to the position of an ordinary bank assumed that prompt contraction would avoid the necessity of remitting any large amount of gold, and that if an internal drain developed it could be met by rapidly induced gold imports. Their opponents, on the other hand, assumed that a defense fund was needed during the period before a correction could take place in the form of a more favorable trade balance and a recall of English capital.

The need for a defense fund was more clearly seen by all groups of opinion by 1858 and after. But what was not so clearly seen by directors such as Norman, Hubbard, and Hankey and by writers such as Bagehot and Palgrave was that this fund in order to be available needed to be held by the Bank. It is odd that this point should have been overlooked inasmuch as it was well understood by the witnesses before the Bank Charter Committee in 1832. The mistake lay in ignoring the fact that the reserves of other banks were for the purpose of

maintaining internal liquidity and were therefore not available for meeting a drain. Bagehot praised the New York system. But this was not a case in point. Aside from the fact that the New York banks had to suspend specie payments on several occasions, Bagehot overlooked the fact that New York was not analogous to London, but depended upon London as the place of last resort for obtaining gold.

Criticism of the Theories of International Equilibrium

My criticism of the theories of international equilibrium is that they did not take into account London's position as the regulator of credit in the gold standard world. An important part of the means of international settlement consisted of London bills and balances. Liquidity for other countries meant ability to maintain a satisfactory balance of payments with London. If London contracted they were compelled to contract. At the same time other countries were in a position to convert such of

their sterling holdings into gold as suited their convenience. For any given country no obvious penalty attached to accumulating additional gold. But when London contracted in the effort to obtain gold the international credit system contracted, and there was a limit to which such contraction could be borne. The City would certainly have chosen suspension as against a destructive contraction. London could hope to change within limits the preference of other countries for gold as against bills and balances, but she could not engage in a competitive contraction, any more than a central bank could engage in a competitive contraction with its members. The nineteenth-century theory, on the other hand, presupposed that the credit systems of other countries would remain relatively unchanged in the face of a contraction by London, and that London could strengthen its gold at their expense by compelling an appropriate reduction at home in the prices of securities and commodities.

APPENDIX

NOTE ON SOURCES OF DATA USED IN THE APPENDIX

Bank of England Data, 1819-1832

Prior to 1832 the Bank had never made public the amount of its bullion,¹ nor had it currently published the amount of its securities and deposits. During the interval between the inquiries of 1819 and 1832 Parliament was given periodically (though not every year) a statement of the circulation for each Saturday. A report was also made of the public deposits for the first and fifteenth day of each month for the year past and (irregularly) of advances to the government and of Exchequer bills purchased for four dates in the year. But as regards private deposits, private securities, and bullion the public were left in the dark. It was not until the publication of the report of the Committee on the Bank of England Charter that the public had any adequate notion of the state of the affairs of the Bank during the preceding years. Even then the reporting dates were varied so that it was difficult to fit in one set of data with another.

The first two charts, which give the principal assets and liabilities from 1780 to 1849,² are from the longest series reported on a uniform basis during the first half of the century. They are for the end of February and August of each year. The data for the charts were taken from the Report of the Select Committee on the Bank Acts, 1857, Appendix 11. But the data down to 1832 were available also in the Report of the Committee on the Bank of England Charter, 1832, Appendix 5; and to 1847 in the Report of the Commons Committee on Commercial Distress, 1848, Appendix 4.

The more detailed data on government security holdings were reported for different dates: one series (Chart rva) for February 26 and August 26 and another series (Chart rvb) for June 1. The series in Chart rva, covering the period 1815-1827, was given by the Commons Committee on Resuming Cash Payments and was continued irregularly in the Accounts and Papers of later years, but not continued by the Committee on the Bank of England Charter (Report, H.C. 1819, Appendix 3; P.P. 1826, (215), XIX; P.P. 1826-27, (249), XIV). The latter Committee furnished a series (Chart rvb) as of June 1,

though it was not complete except for the years 1819-1825 (Report, 1832, Appendices 67-71). The data are given in Tables 7a and 7b (pages 88-89 above).

The quarterly data of deposits (Chart vi) and bullion (Chart iii) are as of the 26th of February, May, August, and November, and so do not dovetail exactly into the half-yearly statements of assets and liabilities given in Charts 1 and II (deposits, Report, 1832, Appendix 31; bullion, Appendix 88). The "highest" and "lowest" figures for bullion, instead of referring to the calendar year, refer to the year ending the end of February (Report, 1832, Appendix 28). Moreover, since the points always come on a Saturday they are evidently highest and lowest Saturday statement figures rather than true highest and lowest figures for the year.

The monthly data of "bills and notes under discount" (Chart v) are probably for the first Saturday in each month (Report, 1832, Appendix 55). They are evidently not monthly averages or end-of-month figures, judging by the Thursday figures given by Palmer for December, 1825 (Evidence, 1832, qs. 583-584).

The weekly circulation data (Chart vii) are Saturday closing figures. The original returns show the amounts of Bank post bills in addition to those for notes, but only the figures for notes have been used in the chart. Weekly figures for £5 notes taken separately are not available (for the next four decades) after 1818. The data used in the chart are taken from the Report of the Lords Committee on the Resumption of Cash Payments, 1819, Appendix B2; Report of the Committee on the Bank of England Charter, 1832, Appendix 83; and from Parliamentary Papers, 1833, (733), XXIII.

Statements Beginning in 1832

Following the discussion in 1832 of the advisability of publishing the Bank statement currently, Parliament in 1833³ required that the totals of the four items, securities, bullion, circulation, and deposits, should be reported weekly to the Chancellor of the Exchequer in confidence; and that at the end of each month these weekly data should be averaged

¹ Report, 1832, p. 4.

² The data are available from 1778 to 1857.

³ 3 and 4 Will. IV, c. 98.

for the three months just passed and published in the next succeeding *Gazette*. These data (as published in the *Gazette*) are to be found in the Reports of the Select Committees on Banks of Issue (Report, 1840, Appendix 1; Report, 1841, Appendix 1). The return in the *Gazette* ceased when the Act of 1844 went into effect, but the data were nevertheless brought down to date by the Commons Committee on Commercial Distress in 1848 (Report, H.C. 1848, Appendix 7). These quarterly averages have not been used in the present Appendix, since weekly data are available. It should be borne in mind, however, that the only current statements which writers in the 'thirties had available were these quarterly averages.⁴

Beginning in 1841, Parliament further required⁵ that every fourth week a four-weeks average of the Bank's circulation and bullion (as well as the circulation of the country banks) should be published in the *Gazette*. The current publication of these data ceased also after the Act of 1844, but the data were brought down to date by the Parliamentary Committees in 1848 and in 1857 (Report, H.C. 1848, Appendix 2; Report, 1857, Appendix 15). The circulation data in this return are given in Chart XVI.

It was not until the Act of 1844⁶ that the Bank was required to publish a weekly statement currently. The return in accordance with this Act, showing the separation of departments, is the one to which we have long been accustomed and which has been changed only recently. The first statement was for Saturday, September 7, 1844. It was turned in September 12 and appeared in the *Gazette* on Friday, September 13 (*London Gazette*, 1844, part iii, p. 3172). These statements appear in tabular form in the Report of the Commons Committee on Commercial Distress and in the Reports of the Committees on the Bank Acts (Report, H.C. 1848, Appendix 5; Report, 1857, Appendix 12; Report, 1858, Appendix 14). The Parliamentary Papers do not carry this particular series beyond 1857, but portions of the data are included in another series which will be referred to shortly. However, Sir Ernest Seyd has put the *Gazette* figures in tabular form to the end of 1871 in his *Reform of the Bank of England Note Issue* (1873).

In the meantime Parliament was getting much more complete data at irregular intervals on the past condition of the Bank. The most detailed ac-

counts which the Bank has at any time made public were given to the Committees on Banks of Issue in 1840 and 1841 and to the Committee on Commercial Distress in 1848 (Report, 1840, Appendix 16; Report, 1841, Appendix 6; Report, H.C. 1848, Appendix 8). These returns give twenty-four accounts on a uniform reporting basis (with minor exceptions) from March 6, 1832 to January 1, 1848. It is exclusively from this series, which, however, is not in tabular form, that the charts of weekly data for the period 1832-1847 have been taken. (See Charts VIII-XII.) Let us postpone for the moment a comparison of the statement in this form with the one prescribed by the Act of 1844 and published in the *Gazette*.

The Committee on Commercial Distress, besides giving the detailed series just referred to, and besides giving the series in tabular form as reported in the *Gazette*, began still a third series (also commencing in 1844), which supplemented and in part repeated the series as given in the *Gazette*. It did not, however, supply all the gaps left by the discontinuance of the detailed statements, the last of which was for January 1, 1848. This third series was brought down to date from time to time, though not annually, in returns to the House and by the Committees on the Bank Acts in 1857 and 1858 (Report, H.C. 1848, Appendix 6; Report, 1857, Appendix 13; Report, 1858, Appendix 6). After 1858 it was reported in the Accounts and Papers at irregular intervals. It supplements the *Gazette* series by giving temporary advances, discounts, London bankers' balances, and the Exchequer deposit, and by giving a computation of the notes outside the walls of the Bank. At different times after 1875 portions of these data were dropped, so that for 1879 the only accounts made public were those provided for by the Act of 1844.⁷ This third series and the *Gazette* series have been used in making the charts for the period 1844-1858. (See Charts XIII-XV.)

In comparing the charts for the period 1832-1847 with those for the period 1844-1858, certain differences between similar accounts should be noted. (1) *Advances* for the earlier period are total advances, whereas for the later period they are *temporary advances* only, though the difference is not great. (2) *Total securities* as shown for the earlier period are actual total securities less the permanent advance to the government and an amount of government securities together equal to the Bank's capital, which amounted to £14,553,000.⁸

⁴ Until 1838 returns of the weekly circulation of the Bank were given to Parliament from time to time, but they were not published currently.

⁵ 4 and 5 Vict. c. 50.

⁶ 7 and 8 Vict. c. 32.

⁷ The last year for discounts and temporary advances was 1875; for London bankers' balances, 1877; and for the Exchequer deposit, 1878.

⁸ Even before 1834 the permanent advance was not pre-

Total securities for the later period include only those in the Banking Department. Securities in the Issue Department amounted to £14,000,000 until December 15, 1855, when they were increased to £14,475,000.⁹ During the panic of 1857, from November 13 to December 24, the amount was temporarily increased by £2,000,000.¹⁰ It was increased on July 10, 1861 to £14,650,000 and further increased from time to time thereafter. (3) The *circulation* as reported for the period 1832–1847 includes Bank post bills, the amounts of which are not given in the series and can not be ascertained for the whole period. The *circulation* as reported for the period 1844–1858 excludes post bills, though the return gives them separately. In the charts for the later period they are excluded.¹¹

The reader may be puzzled at first in comparing the Bank statement as it was furnished in detailed form to the Parliamentary Committees for the period 1832–1847 with the one published in the *Gazette* commencing in 1844. Table A is a copy of the statement in the two different forms. (The statement from the *Gazette* was the first one published in compliance with the Act of 1844.)

The detailed statement omits the capital and an amount of public securities equal to it, and it also omits the rest (or surplus). The difference between the two sides equals the *Rest* as shown in the *Gazette* statement.¹² To obtain the true total of public securities, add *Government Debt* and *Other Securities* in the Issue Department to *Government Securities* in the Banking Department, which equals £28,554,834. The detailed statement deducts the

cisely equal to the capital. In 1816 the advance was increased from £11,686,800 to £14,686,800 and the capital was increased from £11,642,400 to £14,553,000. In 1834 the advance was reduced to £11,015,100, the Bank taking other government securities instead. The capital remained the same.

⁹ The government withdrew the difference in bullion and sent it abroad for military purposes (Weguelin, *Ev.*, 1857, q. 598).

¹⁰ The amount was increased first by one million and almost immediately by another million. The maximum amount by which the actual Bank circulation exceeded the legal limit was £928,000, which was on November 20. The Banking Department could have repaid the Issue Department as early as December 1. See Report, 1858, p. xi; and Neave, *Ev.*, 1858, qs. 169–170.

¹¹ The earlier returns make it appear that Bank post bills are similar to the circulation and the two are added together. Later writers, Palgrave, for example, have added them to deposits.

¹² Norman estimated that the Bank buildings, which were not shown among the assets, were worth about £950,000 (*Ev.*, 1840, q. 2058). Part of the surplus, therefore, was not shown.

amount of the capital (£14,553,000) from this figure, which leaves £14,001,834.

To arrive at the note circulation outside the walls of the Bank, subtract *Notes* held in reserve by the Banking Department from *Notes issued* by the Issue Department, which leaves £20,176,270.¹³ To obtain the *Circulation* as shown by the detailed statement, add the amount of *Seven Day and other Bills* (£1,030,354) as shown in the *Gazette* statement. To obtain the *Bullion* as shown by the detailed statement, add together the gold and silver coin and bullion shown by both departments in the *Gazette* statement. The relation of the remaining items is at once apparent.

It has been my purpose to give the reader the data as originally reported save for a few summations which were obviously needed. I have deviated from this only in Chart XII, "Release and Absorption of Funds by the Treasury and Important Related Factors." It is impossible to get a clear idea of the changing position of the Treasury at the Bank by examining separately the charts of the four accounts which were principally responsible. In order, therefore, to show the net indebtedness to the Treasury on these four accounts, whether positive or negative, I have added together the *Exchequer* and *dividend deposits* and subtracted from them the sum of *Deficiency bills* and *other Exchequer bills* (advances for the Supply). The *changes* in the amount of this net indebtedness show the net release and absorption of funds by the Treasury in a certain practical sense which is useful for monetary analysis. (For further discussion, see Chapter V.)

Day of the Week for Which the Bank Statements Were Issued

The weekly data of the Bank circulation reported by the Committees in 1819 and 1832, which have been plotted from 1817 to 1832 (Chart VII), are Saturday closing figures. The day of the week for which the statements of assets and liabilities were issued varies. From March 6, 1832 to March 29, 1842 the statements give Tuesday closing figures for the Bank in London and closing figures for the previous Saturday for the Branches.¹⁴ However, the statements are dated as of Tuesday. From April 2, 1842 to October 31, 1857 the statements are for Saturday; and beginning November 4, 1857 they are for Wednesday.¹⁵ These dates apply to

¹³ The figure used in Report, 1857, app. 13.

¹⁴ Norman, *Ev.*, 1840, q. 2382.

¹⁵ The date was probably changed as a result of the discussion before the Committee on the Operation of the Bank Acts in 1857. The question was raised whether it would not be possible to have an earlier publication instead of waiting

TABLE A
TWO FORMS OF THE BANK STATEMENT
Detailed Statement as Reported to the Committee on Commercial Distress

7 SEPTEMBER.

Circulation:	£.	£.	Public Securities:	£.
London	14,802,000		Advances on Exchequer	
Country	6,405,000		Bills:	
		21,207,000	Deficiency	—
			Other Exchequer Bills	870,000
Deposits, Public, viz.			Exchequer Bills purchased	311,000
Exchequer Account	2,198,000		Stock and Annuities ...	12,821,000
For Payment of Dividends	315,000			14,002,000
Savings Banks, &c.	501,000		Private Securities:	
Other Public Accounts ..	617,000		Bills discounted:	
		3,631,000	London	113,000
			Country	2,003,000
Deposits, Private, viz.				2,116,000
Railways	30,000		East India Bonds	198,000
London Bankers	963,000		City Bonds, &c.	3,357,000
East India Company ...	636,000		Mortgage	620,000
Bank of Ireland, Royal			Advances:	
Bank of Scotland, &c.	175,000		Bills of Exchange	883,000
Other Deposits	5,631,000		Exchequer Bills, Stock, &c.	661,000
Deposits at Branches ...	1,209,000			5,719,000
		8,644,000		21,837,000
			Bullion	15,209,000
		33,482,000		37,046,000

Statement as Published in the "London Gazette"

BANK OF ENGLAND.

An Account, pursuant to the Act 7th and 8th Victoria, cap. 32, for the Week ending on Saturday the 7th day of September 1844.

ISSUE DEPARTMENT.

	£.		£.
Notes issued	28,351,295	Government Debt	11,015,100
		Other Securities	2,984,900
		Gold Coin and Bullion	12,657,208
		Silver Bullion	1,694,087
	£28,351,295		£28,351,295

Dated the 12th day of September 1844.

M. Marshall, Chief Cashier.

BANKING DEPARTMENT.

	£.		£.
Proprietors' Capital	14,553,000	Government Securities (including Dead	
Rest	3,564,729	Weight Annuity)	14,554,834
Public Deposits (including Exchequer,		Other Securities	7,835,616
Savings Banks, Commissioners of National Debt, and Dividend Accounts)	3,630,809	Notes	8,175,025
Other Deposits	8,644,348	Gold and Silver Coin	857,765
Seven Day and other Bills	1,030,354		
	£31,423,240		£31,423,240

Dated the 12th day of September 1844.

M. Marshall, Chief Cashier.

both forms in which the statements of assets and liabilities were issued. Statements for the days of the week given above were used also in making up the three-months averages required by the Act of 1833. However, the Bank circulation data given in the same tables with the country circulation data to the Select Committees in 1840 and 1857 are Saturday figures throughout the periods covered.

The Country Circulation

The actual data before 1833 are not known. An Act of 1833¹⁶ required the country banks to report quarterly averages of weekly figures to the Stamp Office for the quarters ending the first of January, April, July, and October, and these data were published (for each bank separately) in the *Gazette*. An Act of 1841¹⁷ required four-weeks averages for all the banks in consolidated form to be published every four weeks. Weekly returns were not published currently until the operation of the Act of 1844. However, weekly data for the period beginning in 1833 were furnished to the Select Committees in 1840 and 1841 (Report, 1840, Appendix 29; Report, 1841, Appendices 13a and 13b). The Select Committee of 1857 tabulated the weekly figures which had previously been published in the *Gazette* from 1844 to 1856 (Report, 1857, Appendices 17 and 19). The data used in Chart xvi, however, are taken from the Report of the Committee on the Bank Acts, 1857, Appendix 15 (they are also given to date in Report, H.C. 1848, Appendices 1 and 2). From 1833 to June, 1841 they are monthly averages of Saturday figures.¹⁸ Beginning July 24,

for Saturday's statement to appear the following Friday. Weguelin pointed out that the date was controlled by the Commissioner of Stamps. He also pointed out that, owing to daily fluctuations in the circulation, the Wednesday accounts would show a more favorable reserve than the Saturday accounts. (Ev., 1857, qs. 461-474.)

¹⁶ 3 and 4 Will. IV, c. 83.

¹⁷ 4 and 5 Vict. c. 50.

¹⁸ The total country bank circulation as reported down to 1841 is greater than the sum of the private and joint stock

1841 they are averages of four Saturday figures and are reported for every fourth Saturday. The Bank circulation data, which also are reported in this table, are made up in the same way.¹⁹

Yearly Averages of Bank Data, 1844-1909

The yearly averages of the principal items of the Bank statement for the period 1844-1909 are taken from Hirst and Palgrave, *Statistics for Great Britain, Germany, and France, 1867-1909* (1910), pp. 79-84. (See Charts xvii and xviii.) These data are included in order to orient the reader who is more familiar with the condition of the Bank in the decades preceding the World War.

SUMMARY OF SOURCES USED IN CHARTS

- i-ii. Report, 1857, app. 11.
- iii. Report, 1832, app. 28 and 88.
- iva. Report, H.C. 1819, app. 3; P.P. 1826, (215), xix; P.P. 1826-27, (249), xiv.
- ivb. Report, 1832, app. 67-71.
- v. Report, 1832, app. 55.
- vi. Report, 1832, app. 31.
- vii. Report, H.L. 1819, app. B2; Report, 1832, app. 83; P.P. 1833, (733), xxiii.
- viii-xii. Report, 1840, app. 16; Report, 1841, app. 6; Report, H.C. 1848, app. 8.
- xiii-xv. Report, 1857, app. 12, 13; Report, 1858, app. 6, 14; P.P. 1873, (229), xxxix; Seyd, *Reform of the Bank of England Note Issue* (1873).
- xvi. Report, 1857, app. 15.
- xvii-xviii. Hirst and Palgrave, *Statistics for Great Britain, Germany, and France, 1867-1909* (1910), pp. 79-84.

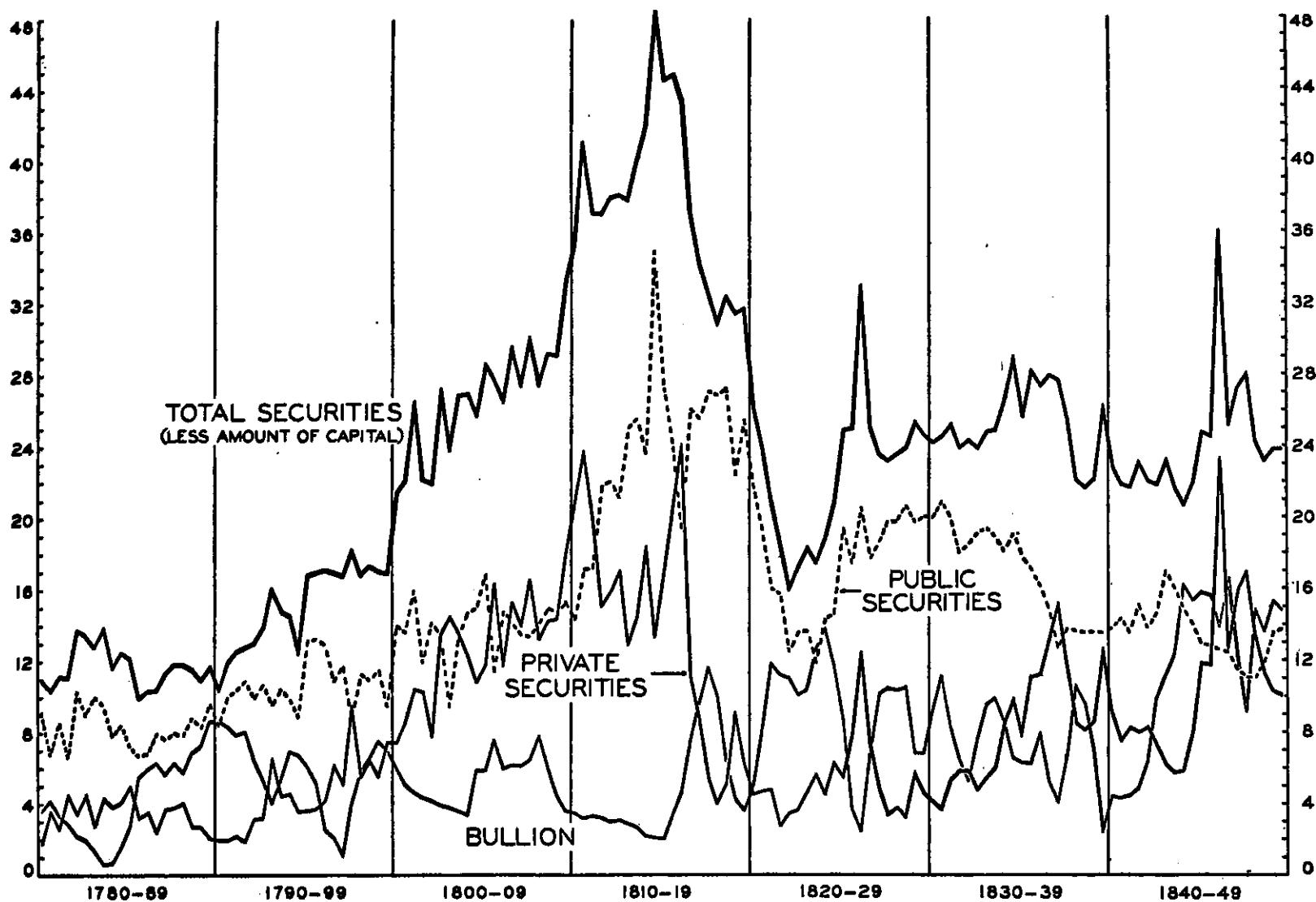
bank circulation for the reason that the Stamp Office adjusted the total (but not the two classes of notes separately) by referring to the more complete quarterly averages (cf. Report, 1840, app. 30).

¹⁹ These Bank circulation data (Report, 1857, app. 15) include Bank post bills, whereas the Bank data reported along with the *weekly* circulation of the country banks (app. 19) exclude post bills.

CHART I
SECURITIES AND BULLION HELD BY THE BANK
AS OF THE END OF FEBRUARY AND AUGUST, 1780-1849

Millions of Pounds

Millions of Pounds



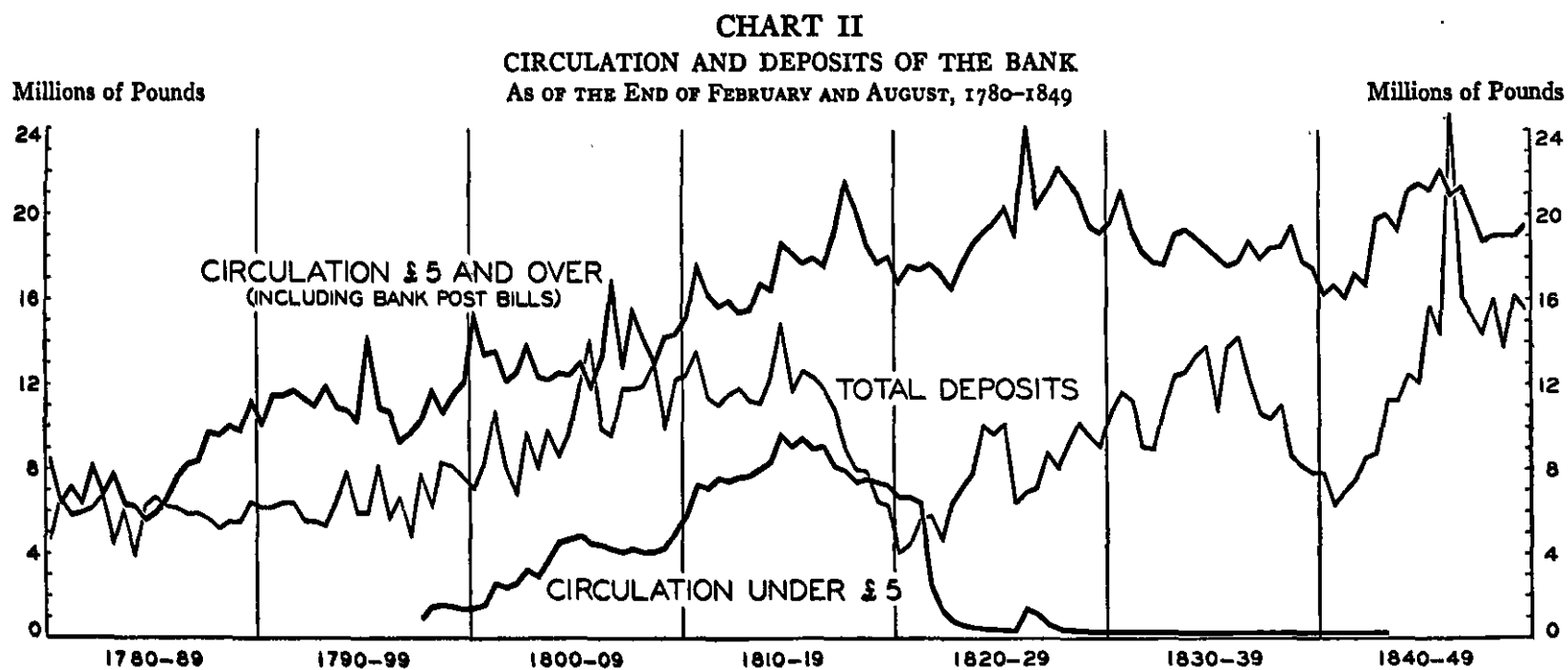


CHART III

GOLD AND SILVER HELD BY THE BANK

As of the 26th DAY OF FEBRUARY, MAY, AUGUST, AND NOVEMBER, 1816-1832.

Also the "HIGHEST" and "LOWEST" for EACH YEAR ENDING THE END OF FEBRUARY

Millions of Pounds

Millions of Pounds

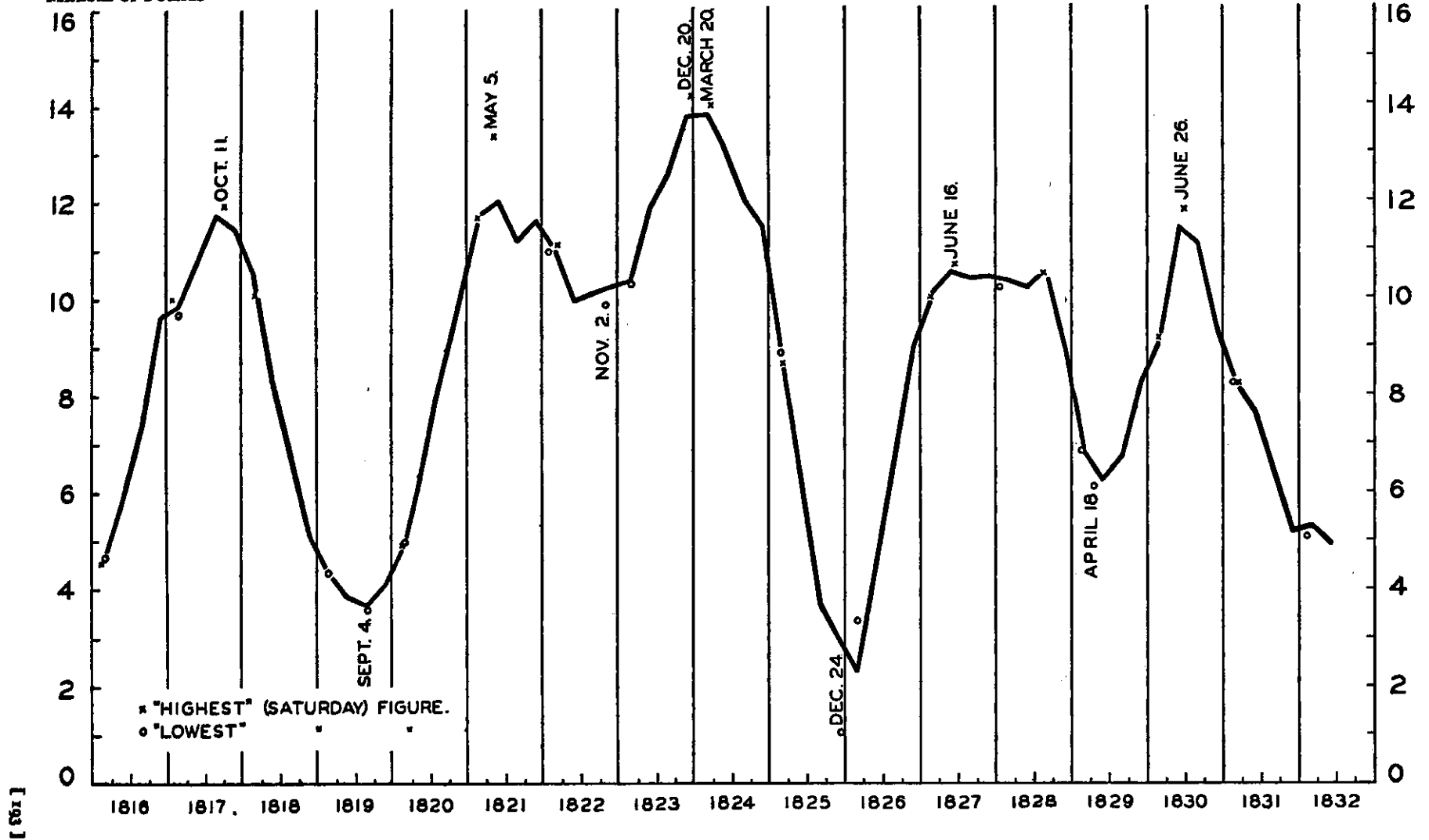


CHART IVa
GOVERNMENT SECURITIES HELD BY THE BANK
 As of FEBRUARY 26TH AND AUGUST 26TH, 1815-1827

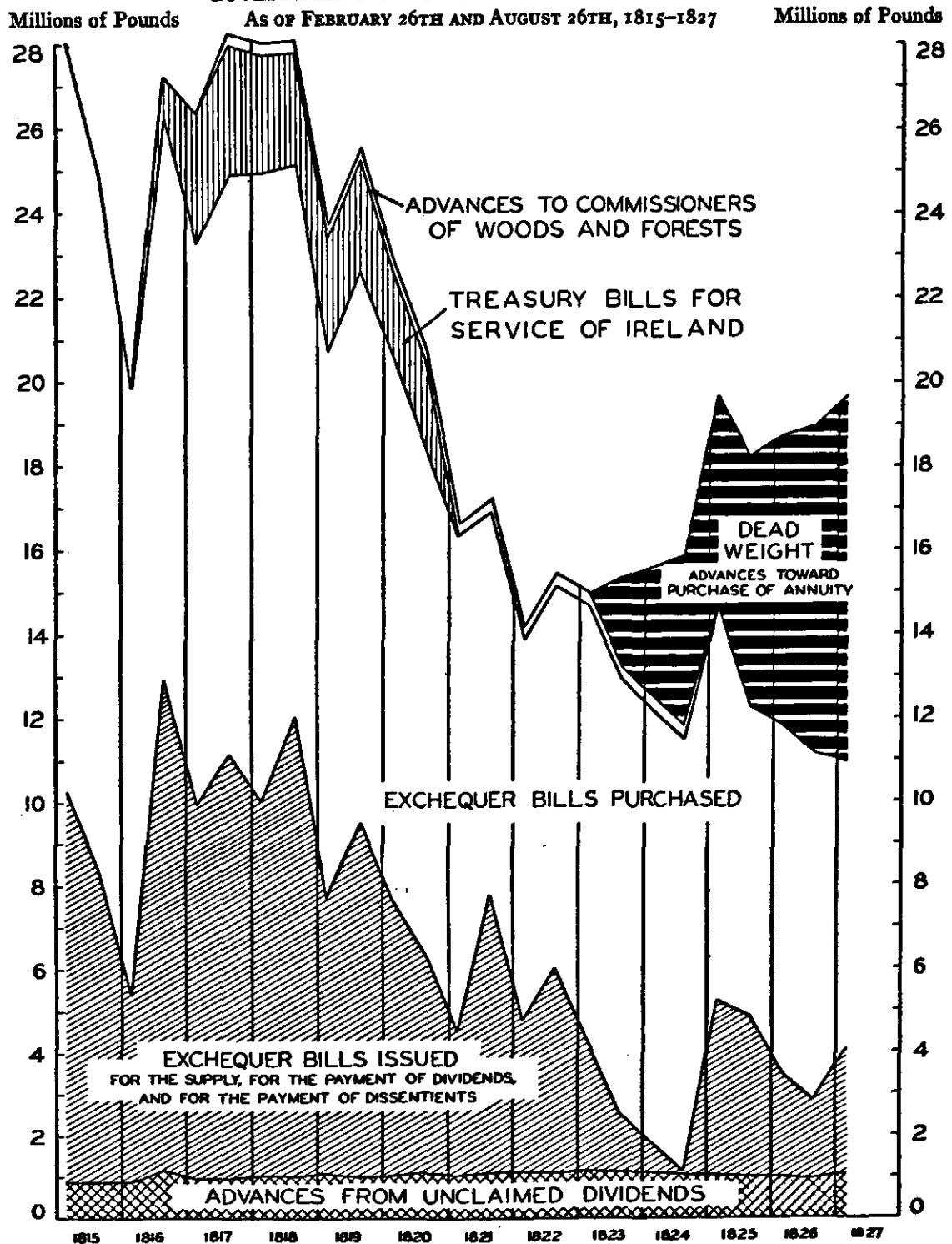


CHART IV_B
GOVERNMENT SECURITIES HELD BY THE BANK
 AS OF JUNE 1st, 1816-1832

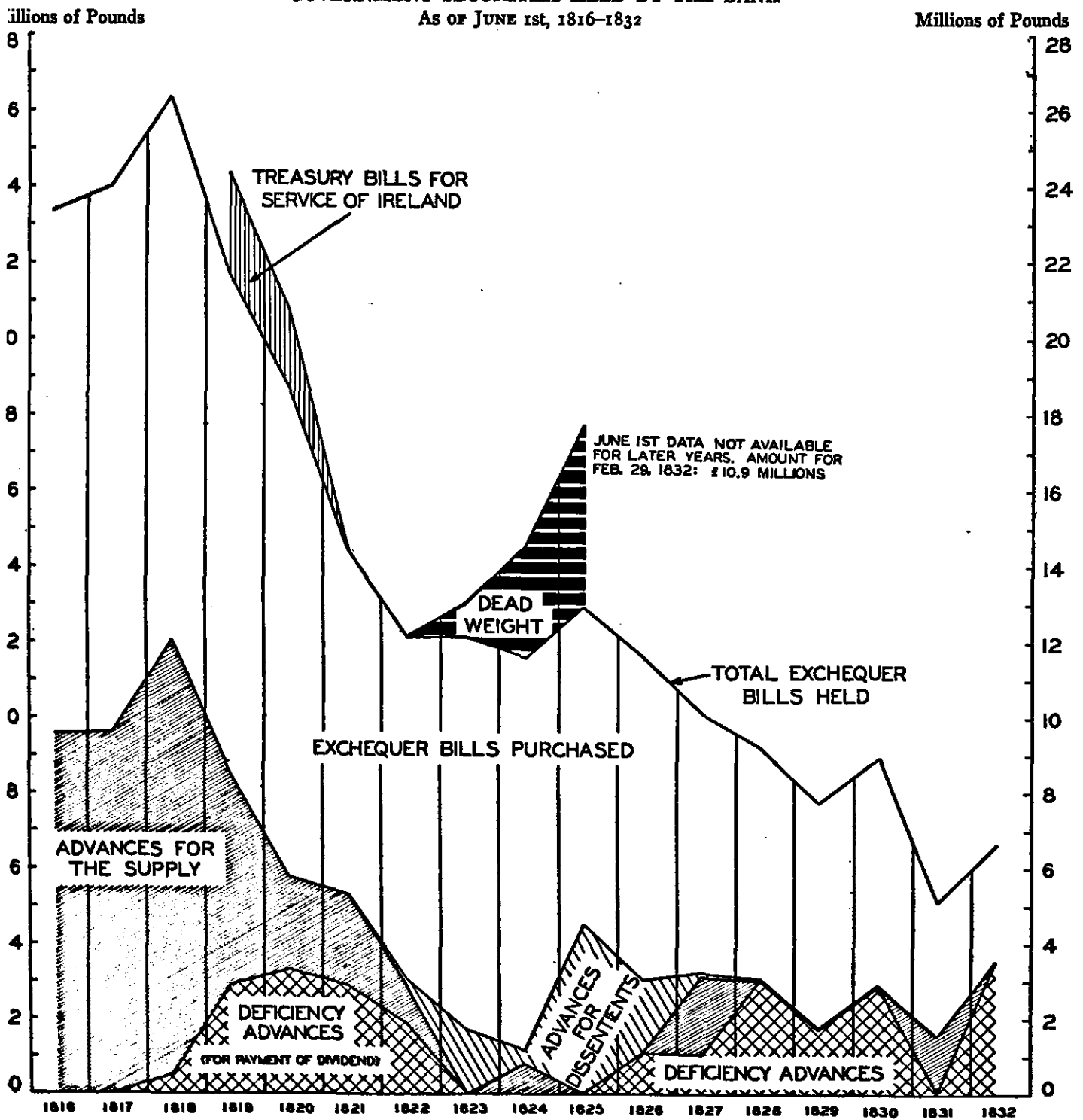


CHART V
BILLS AND NOTES UNDER DISCOUNT AT THE BANK
MONTHLY BASIS, 1824-1831

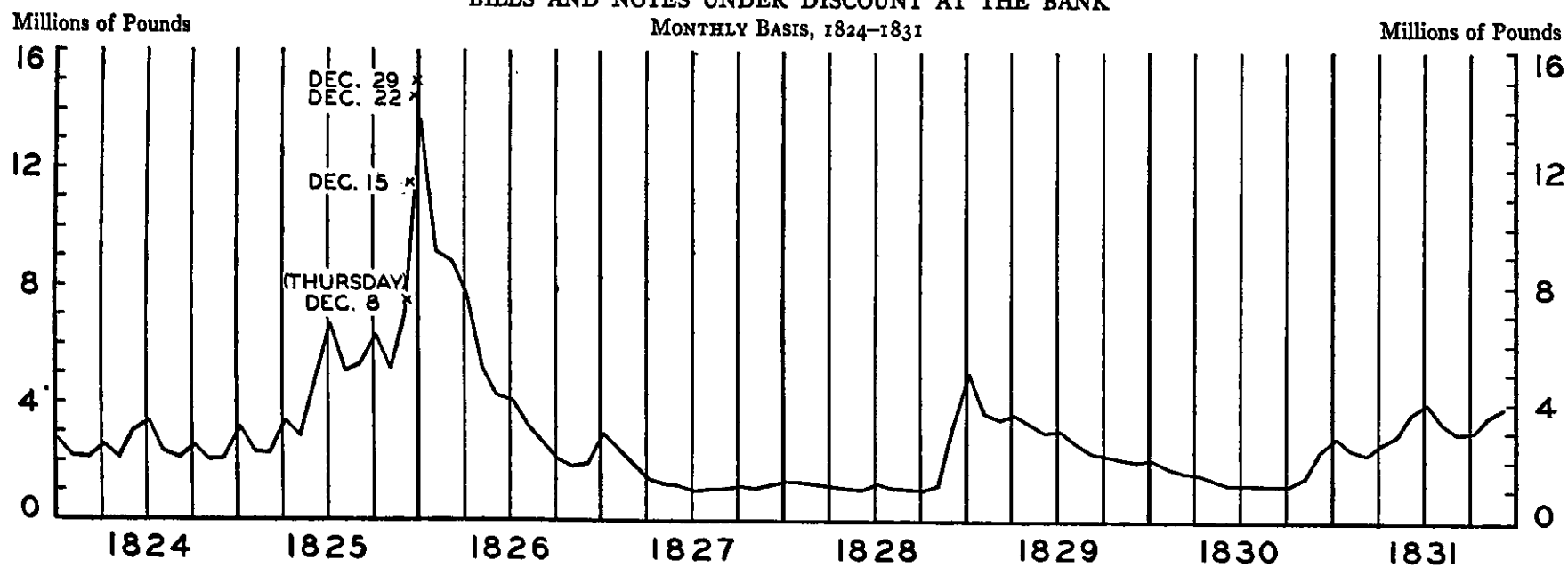


CHART VI

PUBLIC AND PRIVATE DEPOSITS AT THE BANK

AS OF THE 26TH DAY OF FEBRUARY, MAY, AUGUST, AND NOVEMBER, 1815-1832

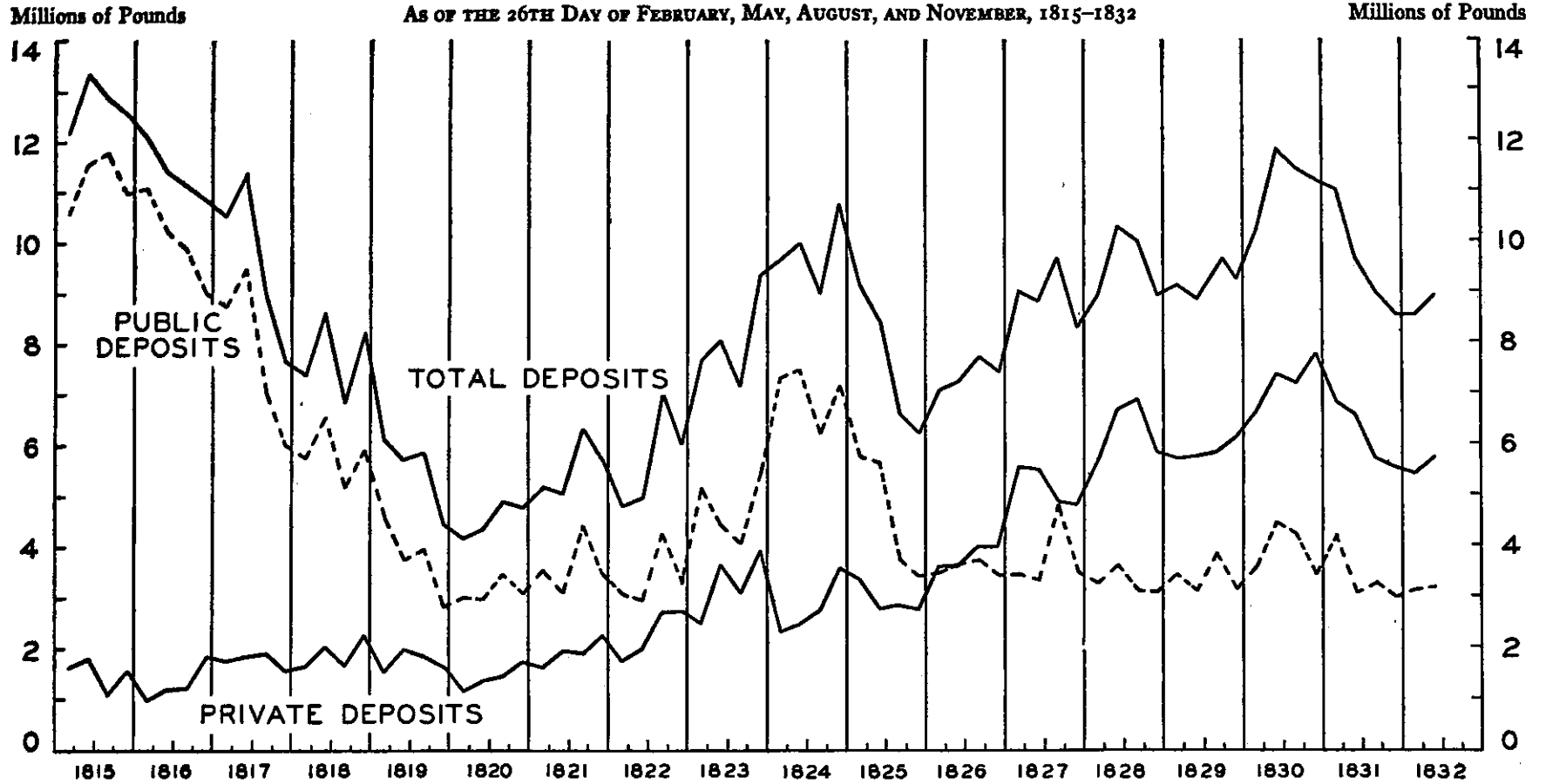


CHART VII
BANK OF ENGLAND CIRCULATION
EACH SATURDAY, 1817-1832

Millions of Pounds

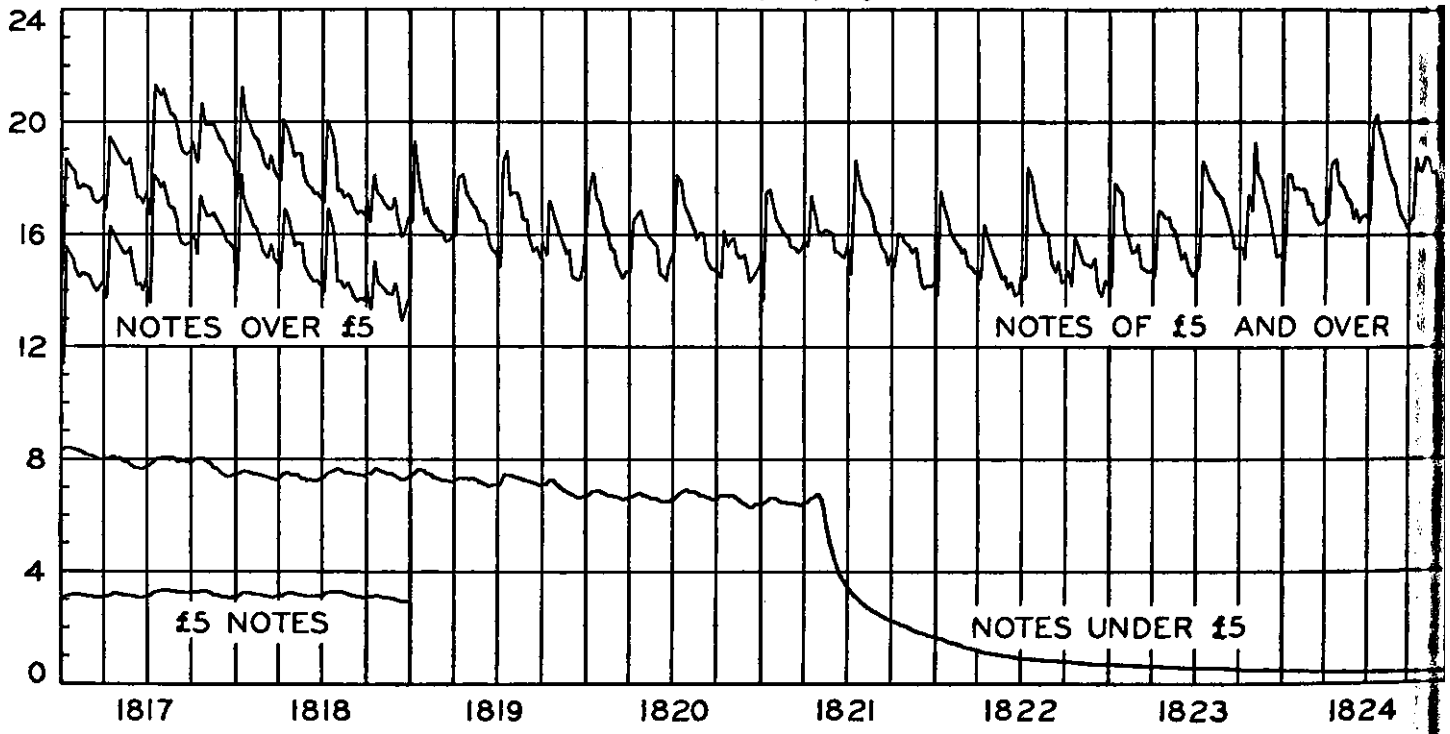


CHART VII (*continued*)
BANK OF ENGLAND CIRCULATION
EACH SATURDAY, 1817-1832

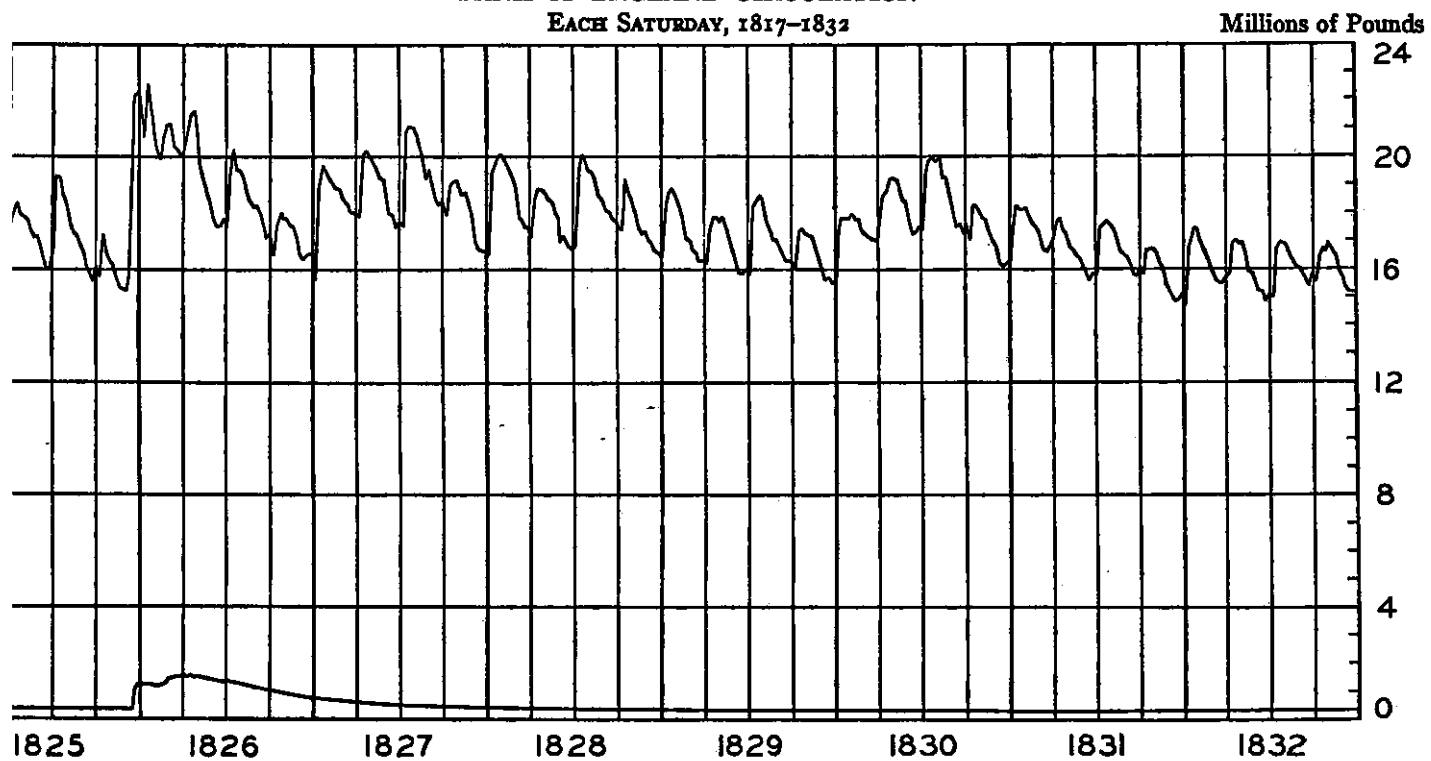


CHART VIII

SECURITIES, BULLION, CIRCULATION, AND DEPOSITS

BANK OF ENGLAND, WEEKLY BASIS, 1832-1847

Tuesday closing figures for Bank in London (Saturday closing figures for Branches) from March 6, 1832 to March 29, 1842. Saturday figures from April 2, 1842, to January 1, 1848.

Millions of Pounds

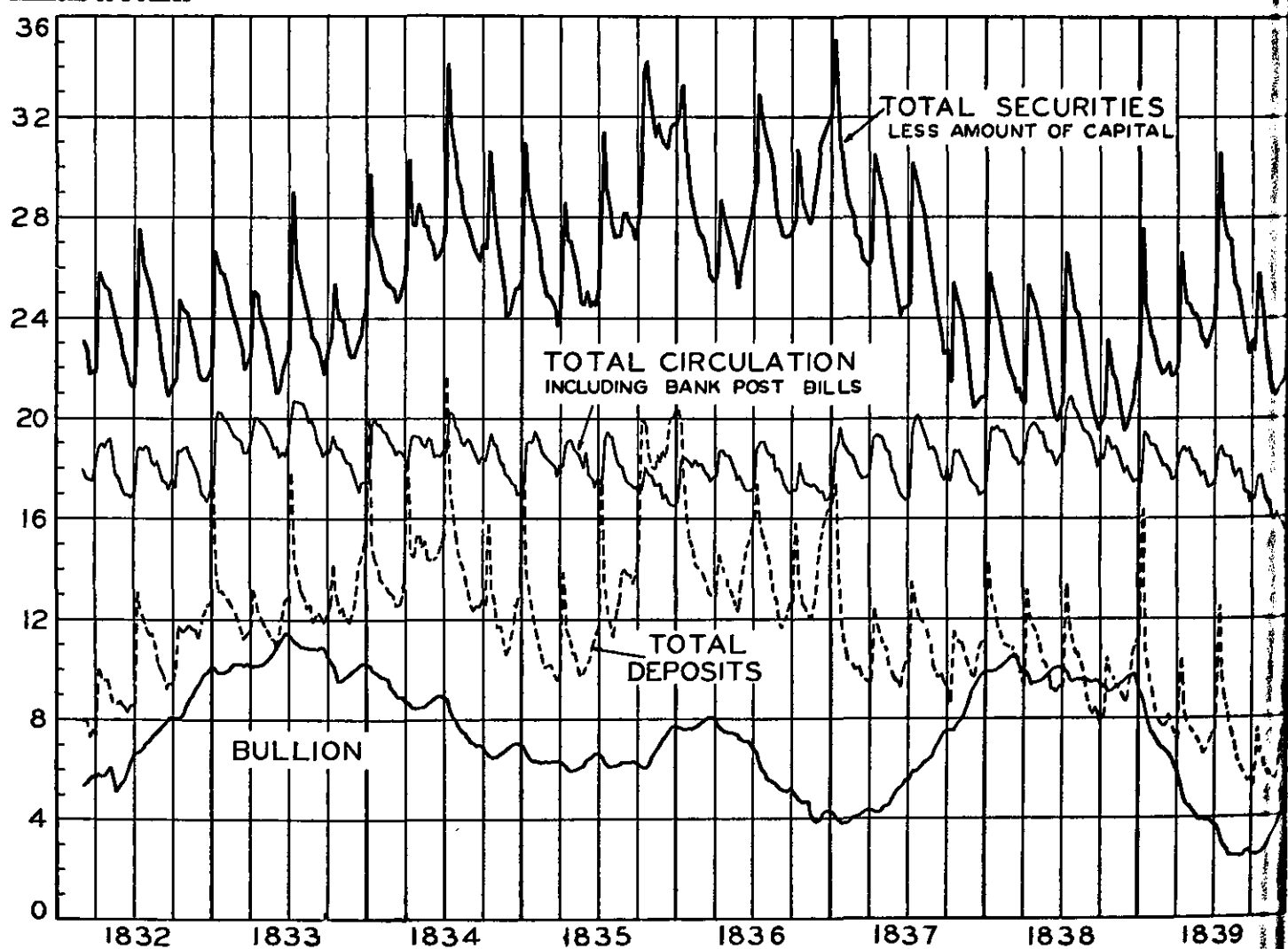


CHART VIII (continued)
SECURITIES, BULLION, CIRCULATION, AND DEPOSITS

BANK OF ENGLAND, WEEKLY BASIS, 1832-1847

Tuesday closing figures for Bank in London (Saturday closing figures for Branches) from March 6, 1832 to March 29, 1842. Saturday figures from April 2, 1842, to January 1, 1848.

Millions of Pounds

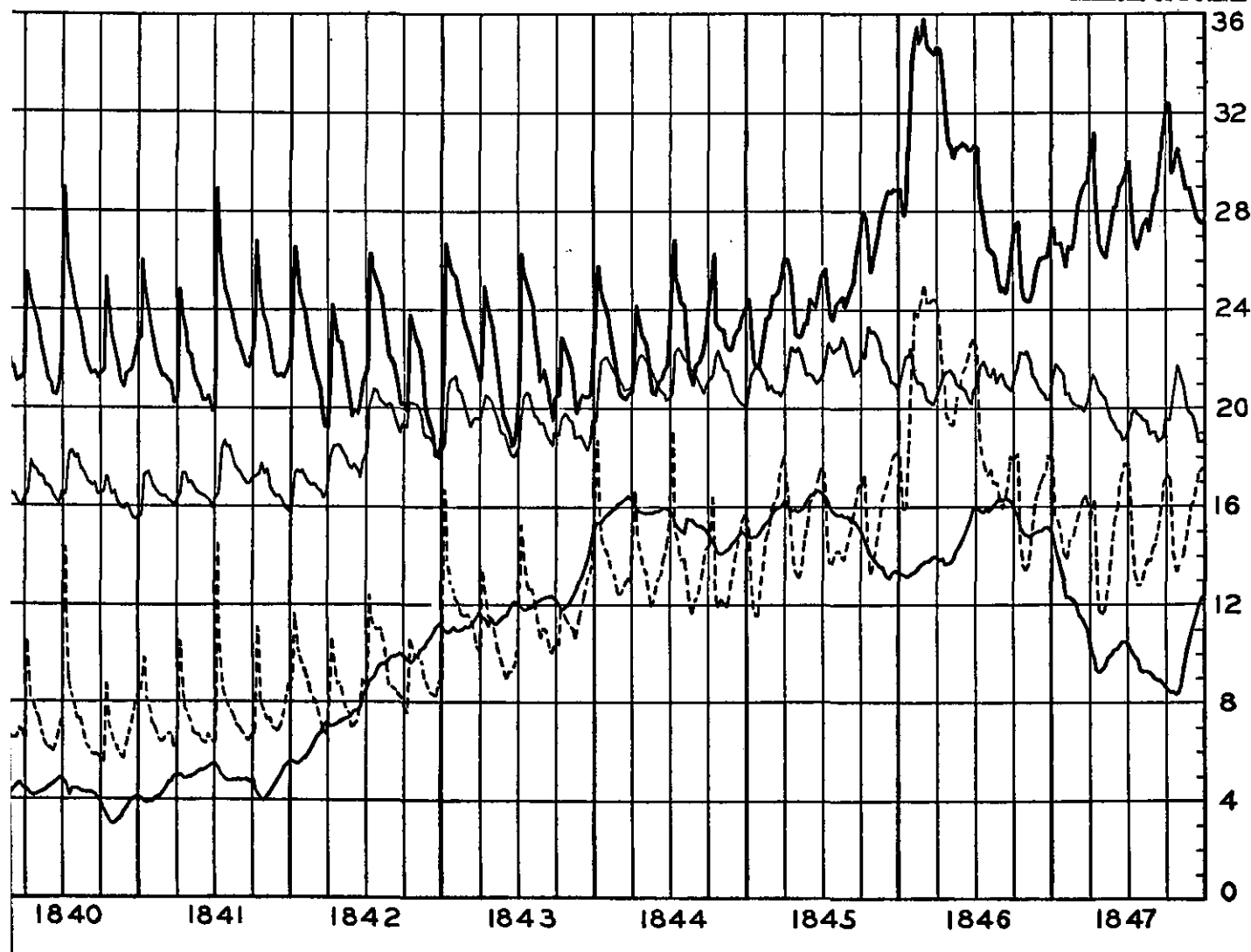


CHART IX
PUBLIC AND PRIVATE SECURITIES HELD BY THE BANK
 WEEKLY BASIS, 1832-1847

Millions of Pounds

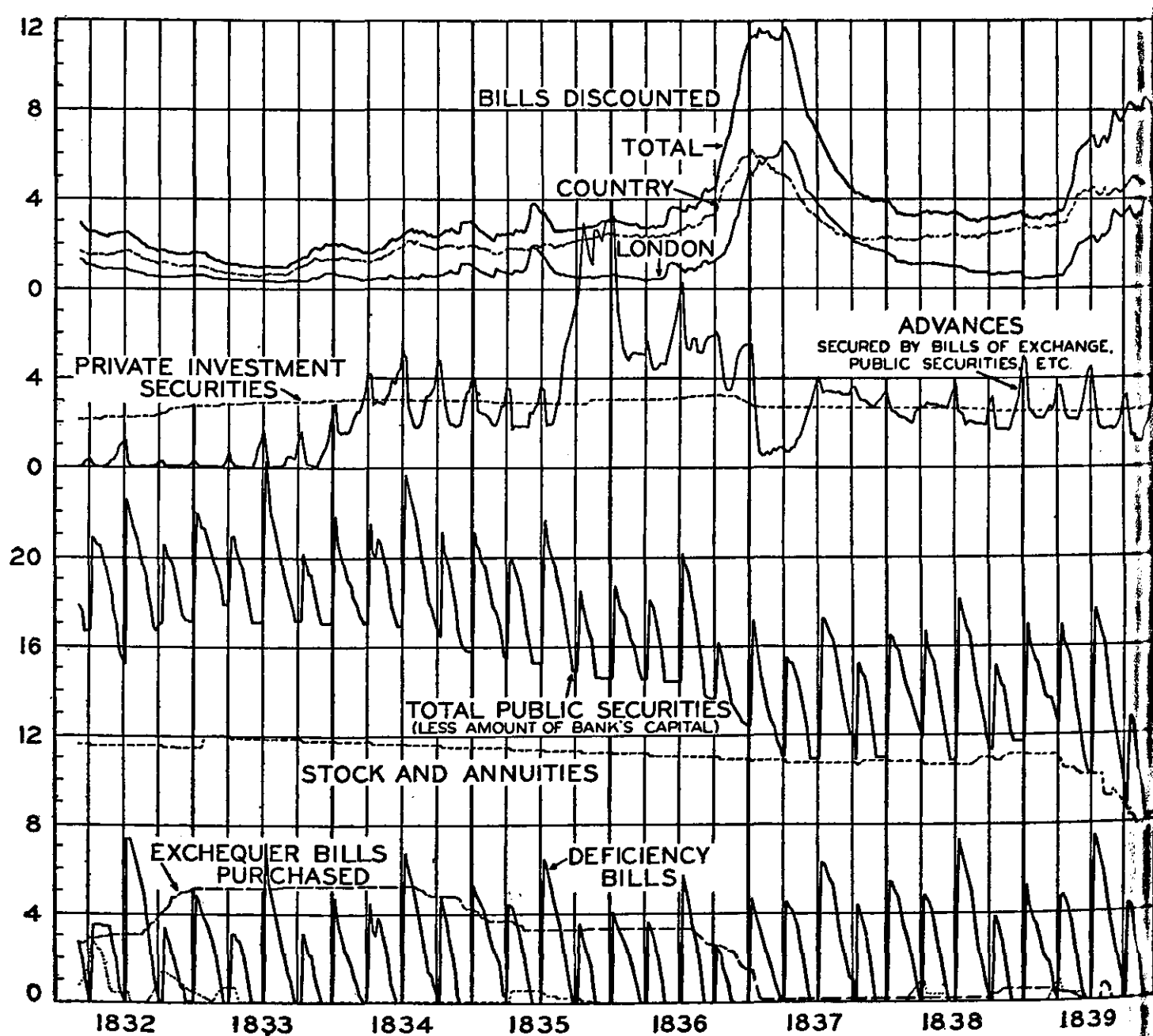


CHART IX (continued)
PUBLIC AND PRIVATE SECURITIES HELD BY THE BANK
WEEKLY BASIS, 1832-1847

Millions of Pounds

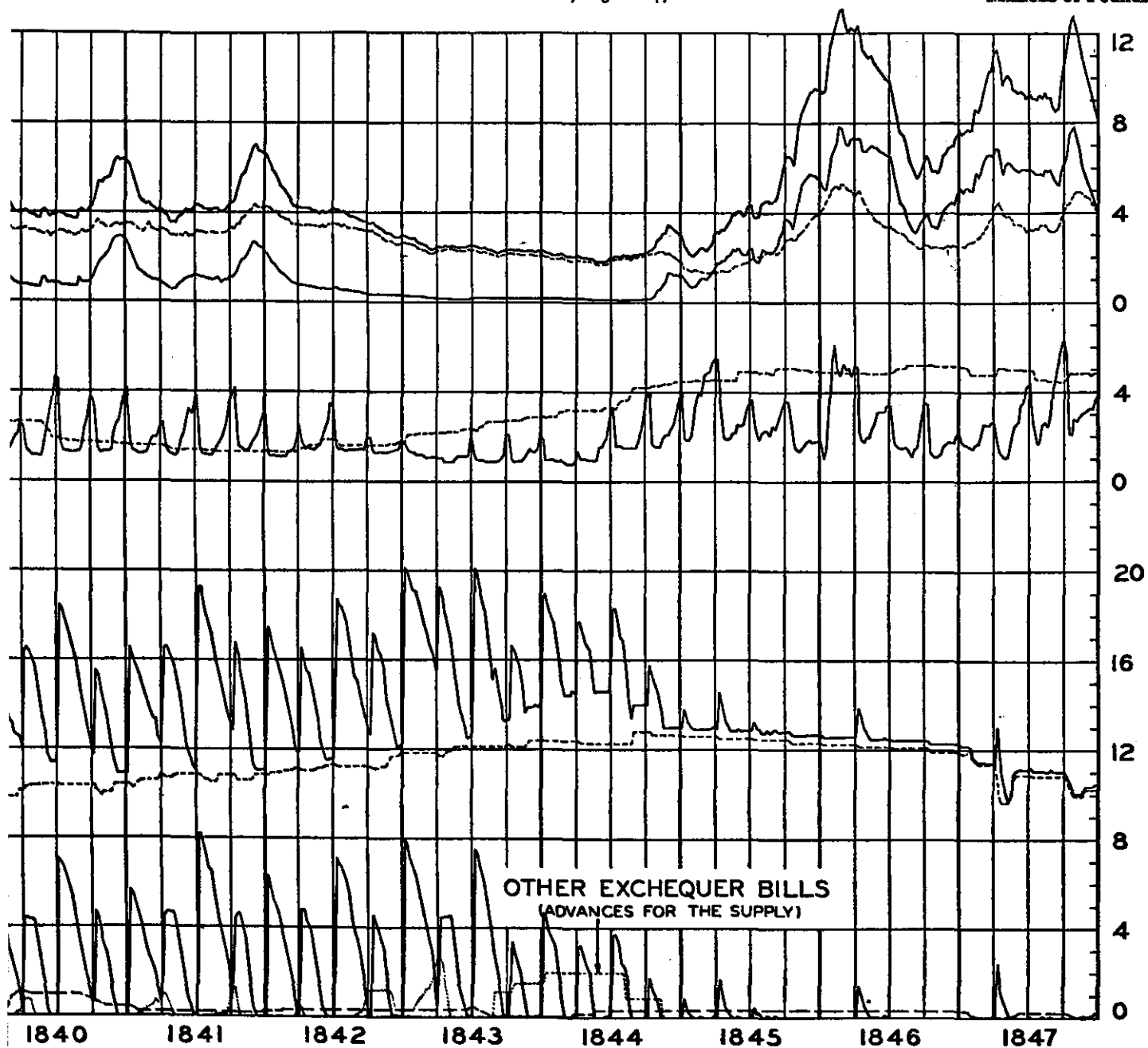


CHART X
PRIVATE DEPOSITS AT THE BANK
 WEEKLY BASIS, 1832-1847

Millions of Pounds

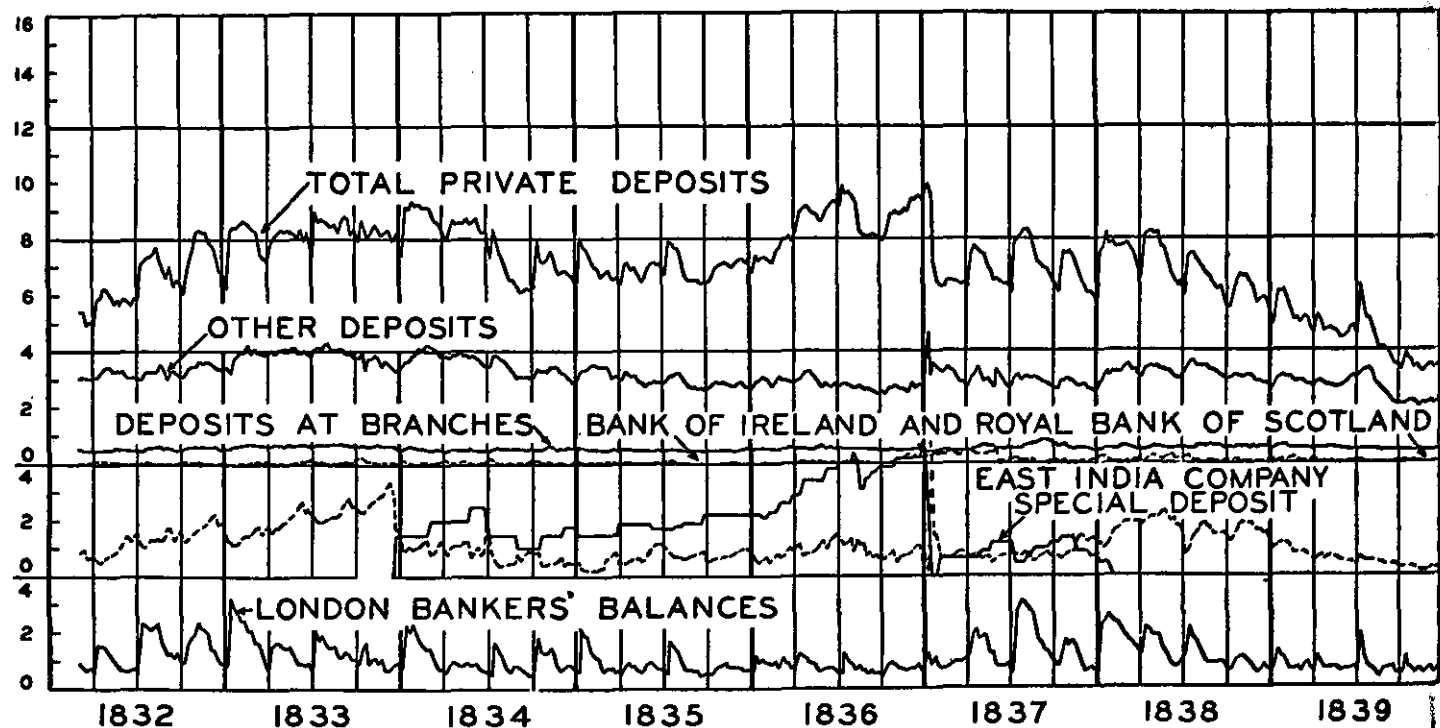


CHART XI
PUBLIC DEPOSITS AT THE BANK
 WEEKLY BASIS, 1832-1847

Millions of Pounds

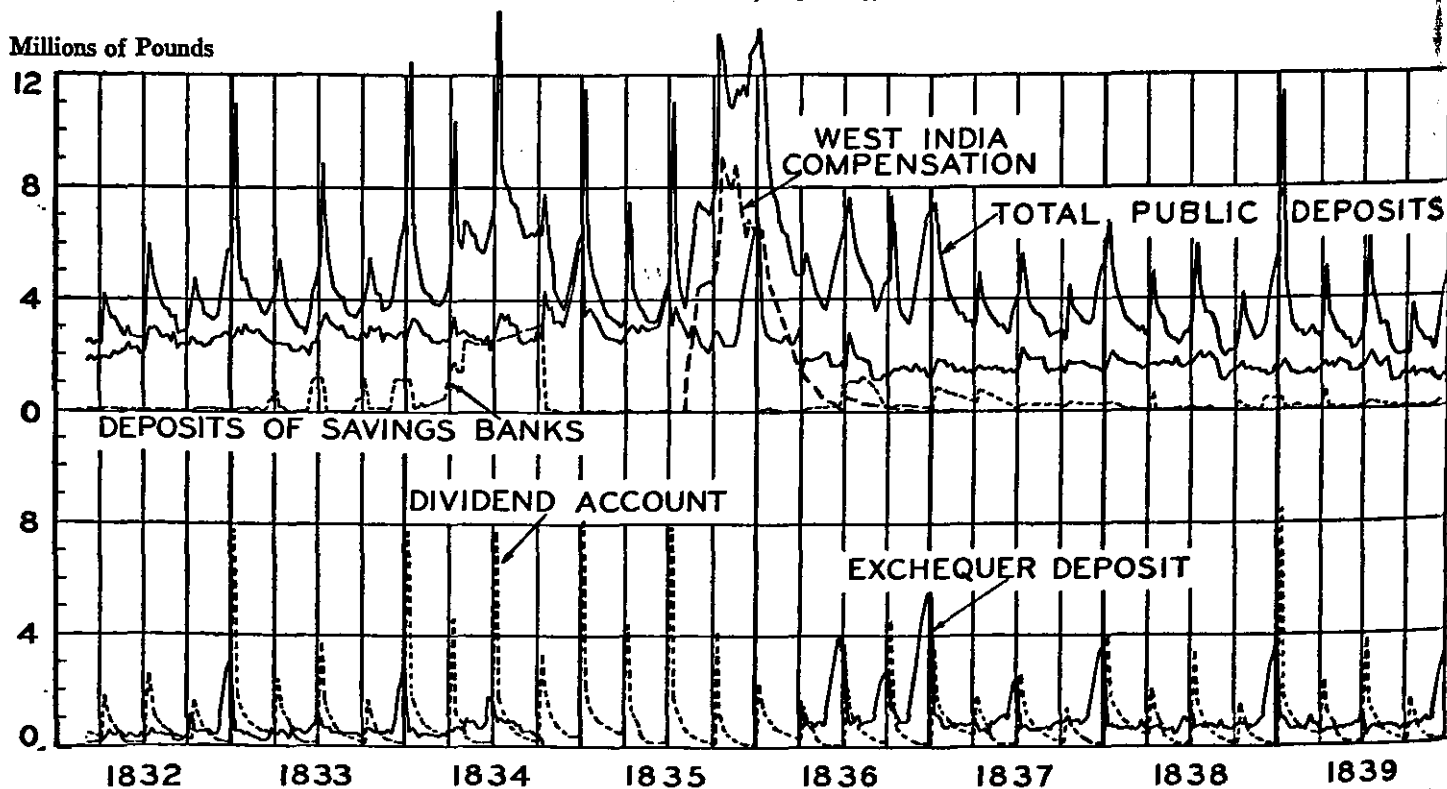


CHART X (continued)
PRIVATE DEPOSITS AT THE BANK
WEEKLY BASIS, 1832-1847

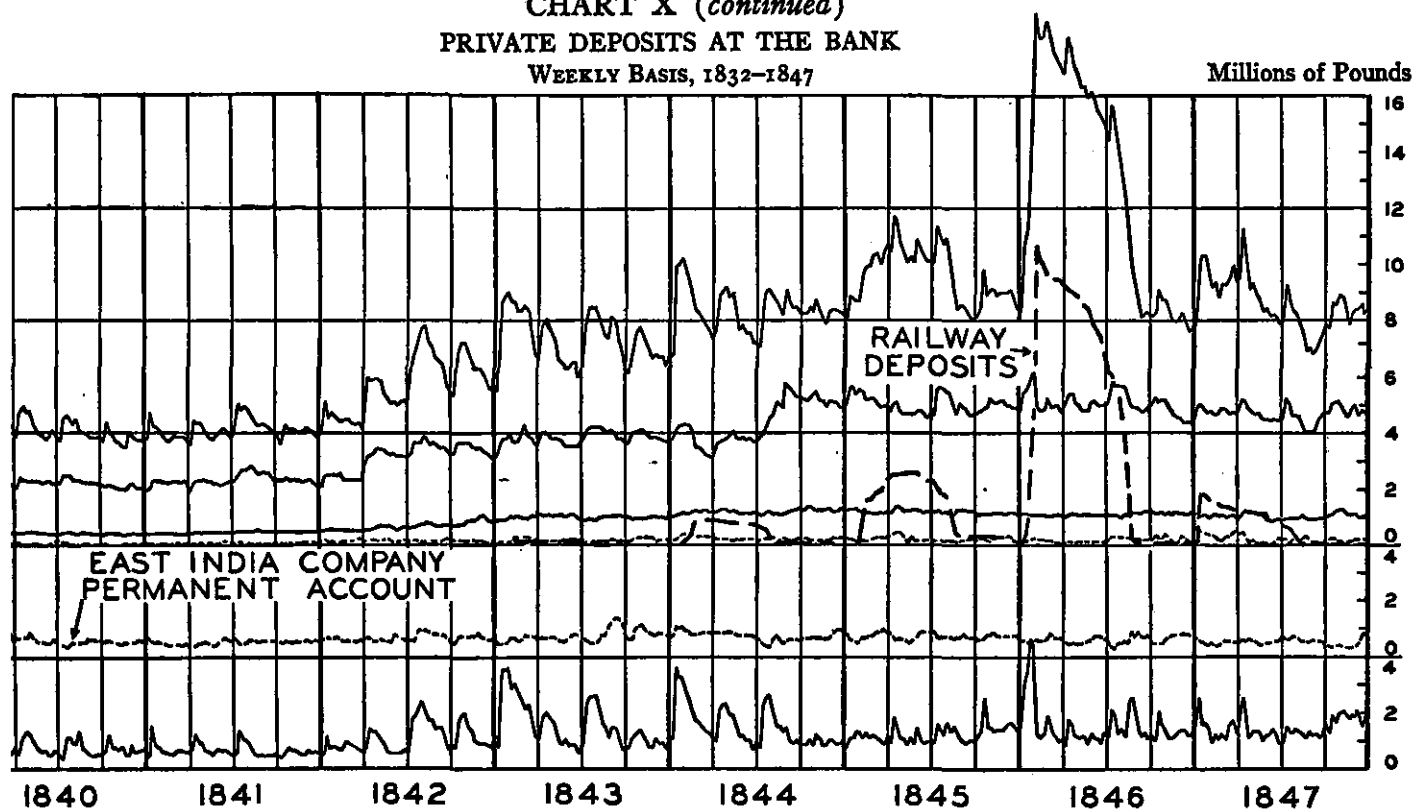


CHART XI (continued)
PUBLIC DEPOSITS AT THE BANK
WEEKLY BASIS, 1832-1847

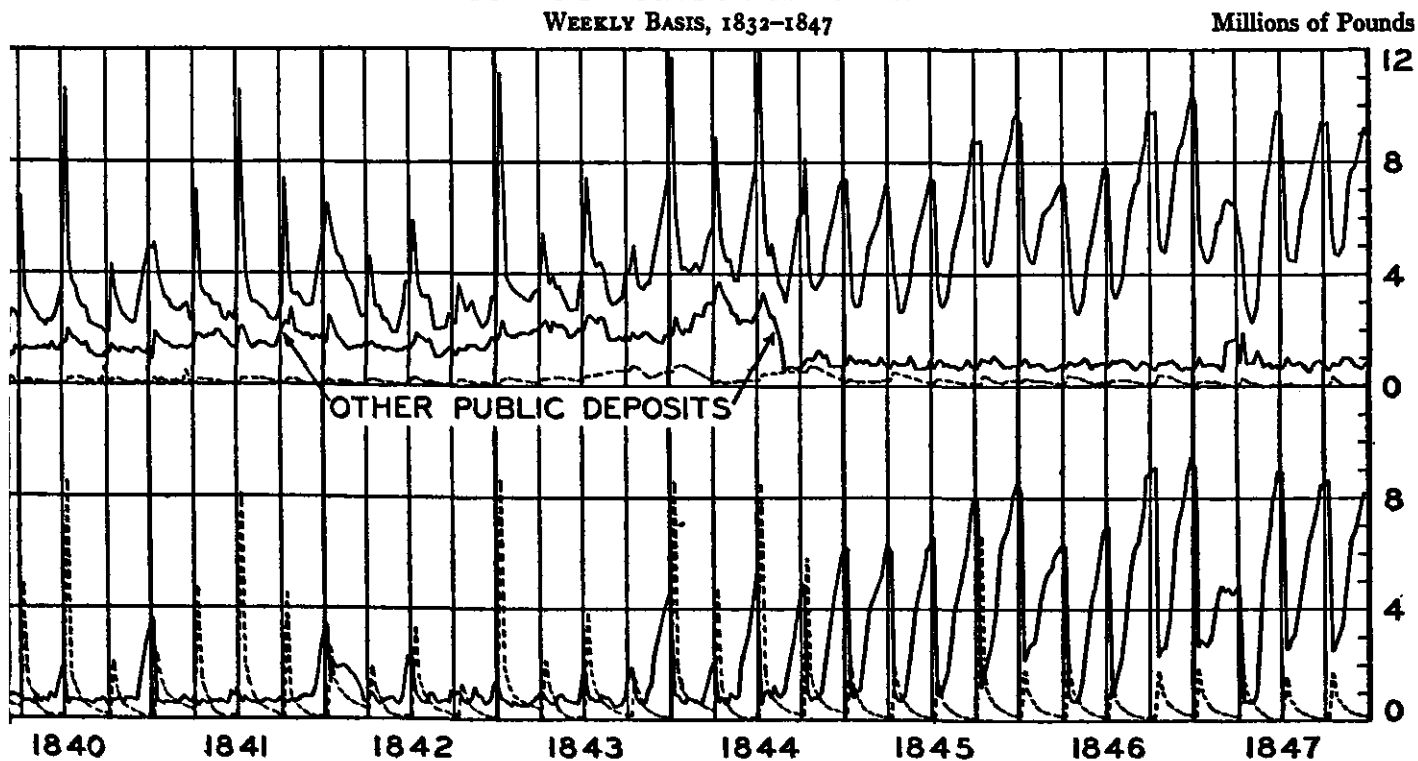


CHART XII

RELEASE AND ABSORPTION OF FUNDS BY THE TREASURY AND IMPORTANT RELATED FACTORS

* Millions of Pounds

BANK OF ENGLAND. WEEKLY BASIS, 1832-1847

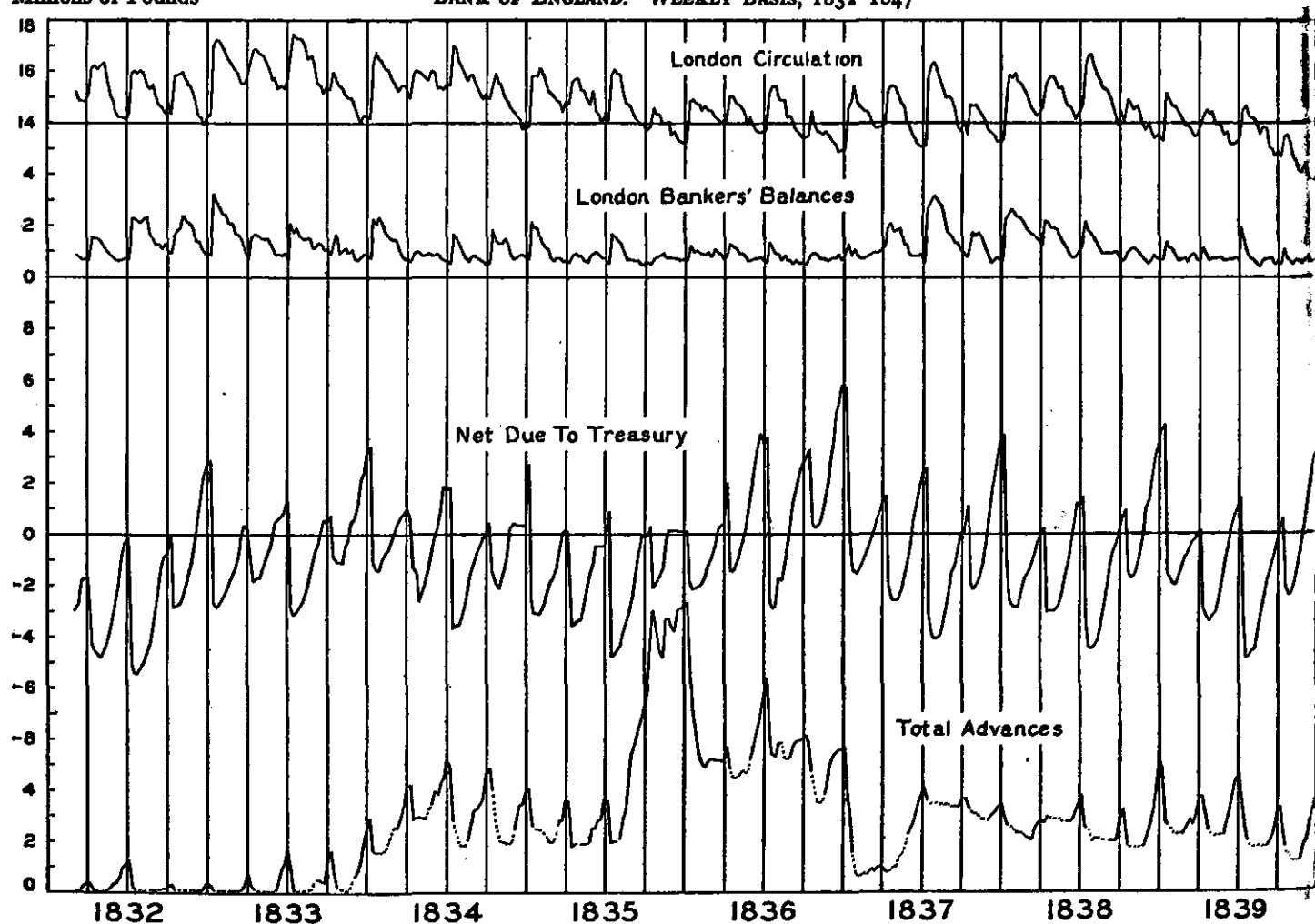


CHART XII (continued)

RELEASE AND ABSORPTION OF FUNDS BY THE TREASURY AND IMPORTANT RELATED FACTORS

BANK OF ENGLAND. WEEKLY BASIS, 1832-1847

Millions of Pounds

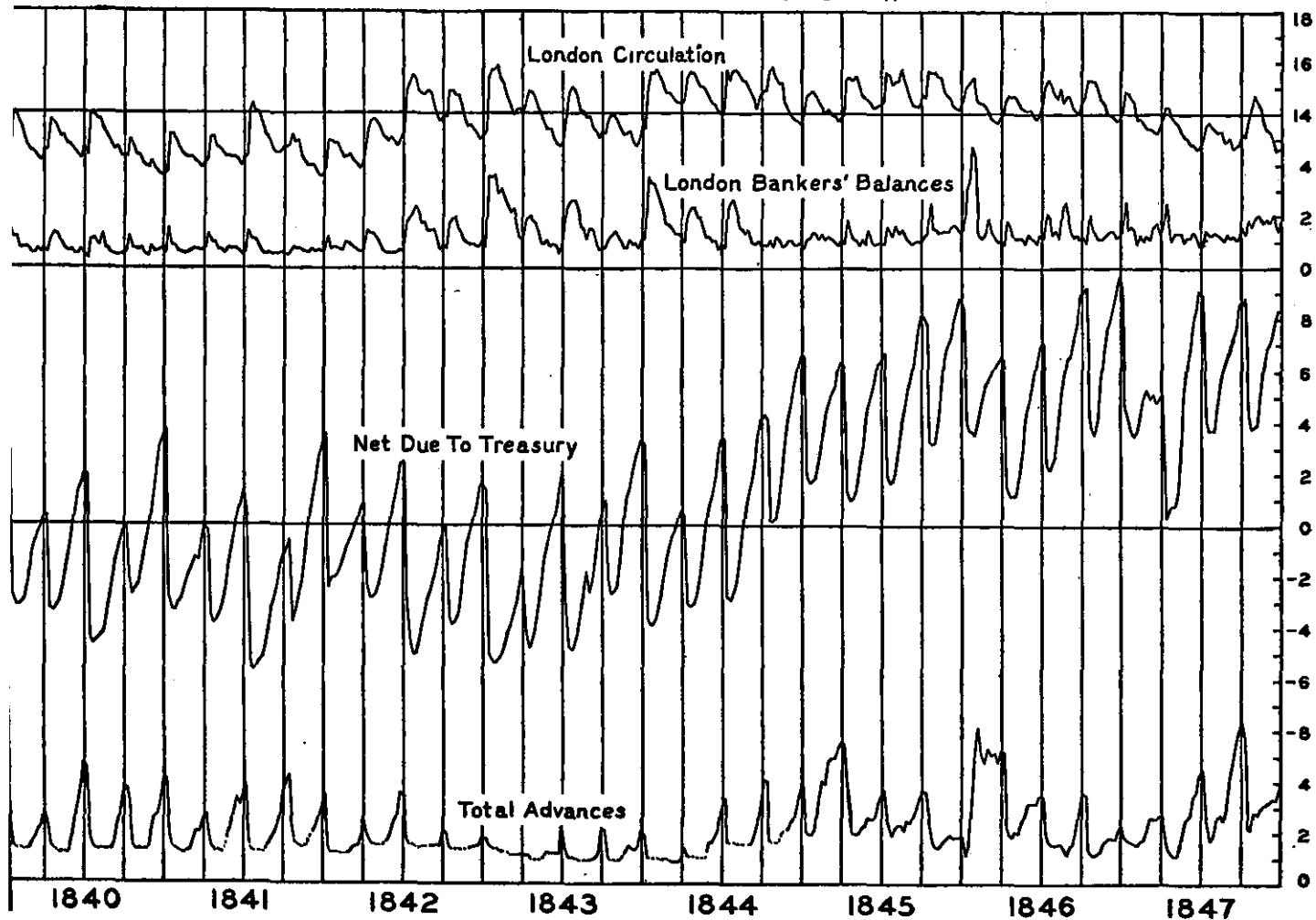


CHART XIII CIRCULATION, BULLION, AND NOTE RESERVE BANK OF ENGLAND. WEEKLY BASIS, 1844-1858

Millions of Pounds

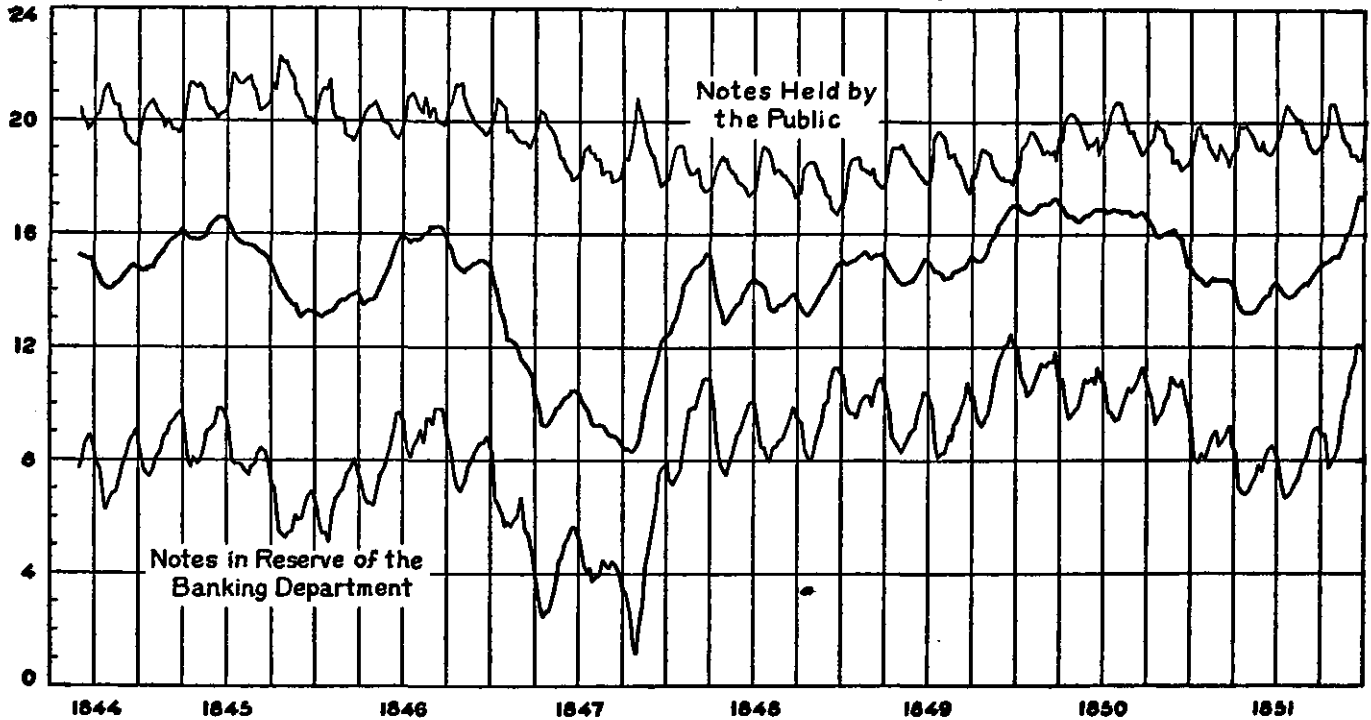


CHART XIII (*continued*)
CIRCULATION, BULLION, AND NOTE RESERVE
BANK OF ENGLAND. WEEKLY BASIS, 1844-1858

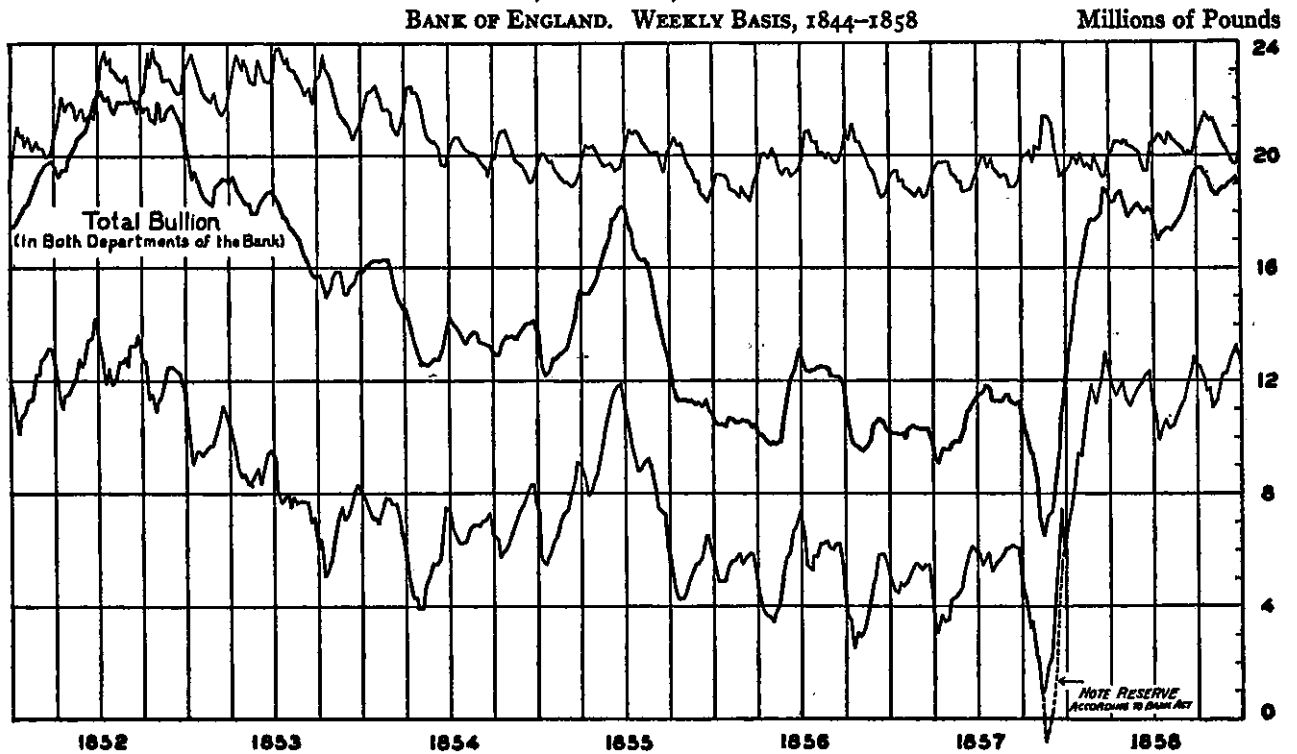


CHART XIV SECURITIES IN THE BANKING DEPARTMENT WEEKLY BASIS, 1844-1858

Millions of Pounds

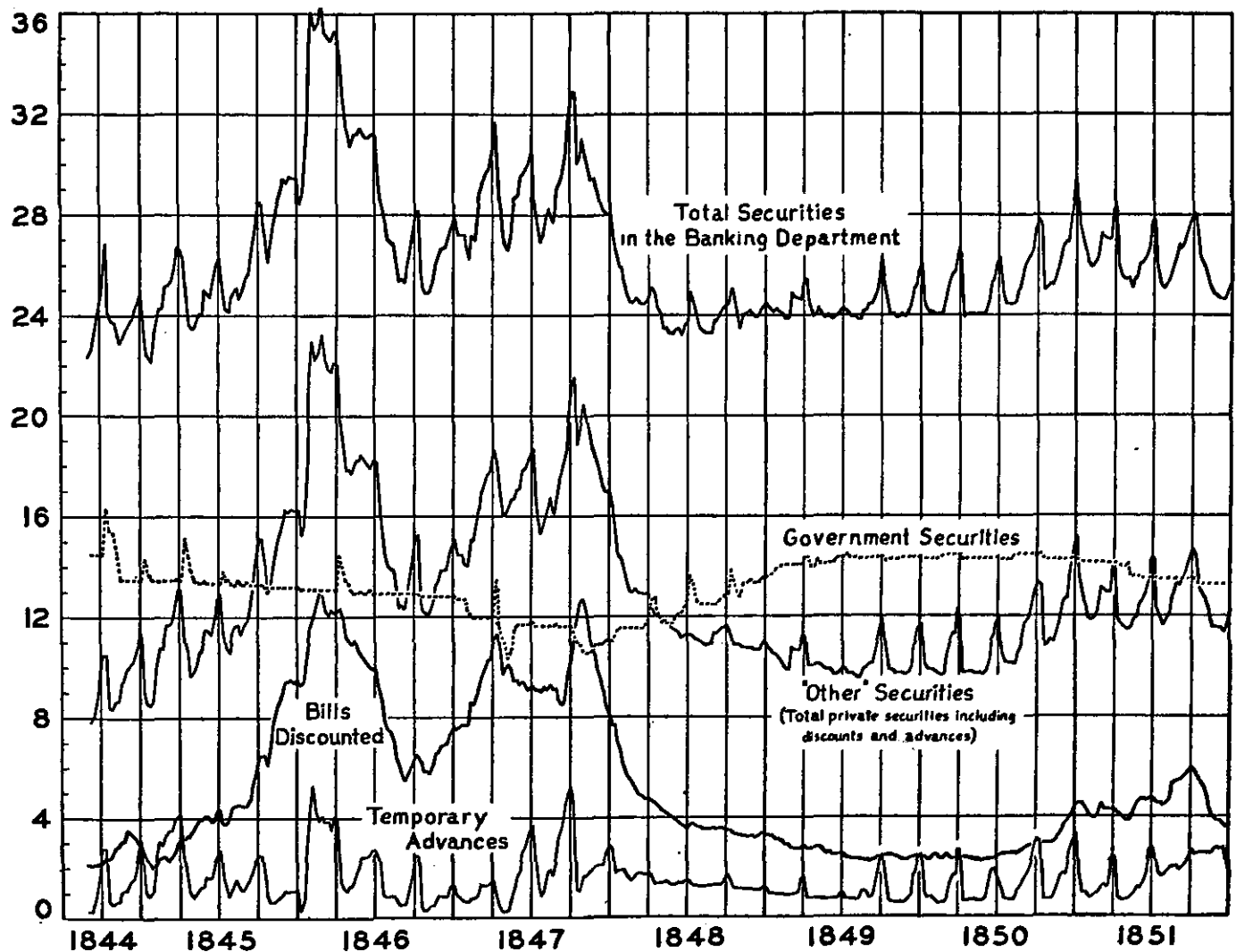


CHART XIV (*continued*)
 SECURITIES IN THE BANKING DEPARTMENT
 WEEKLY BASIS, 1844-1858

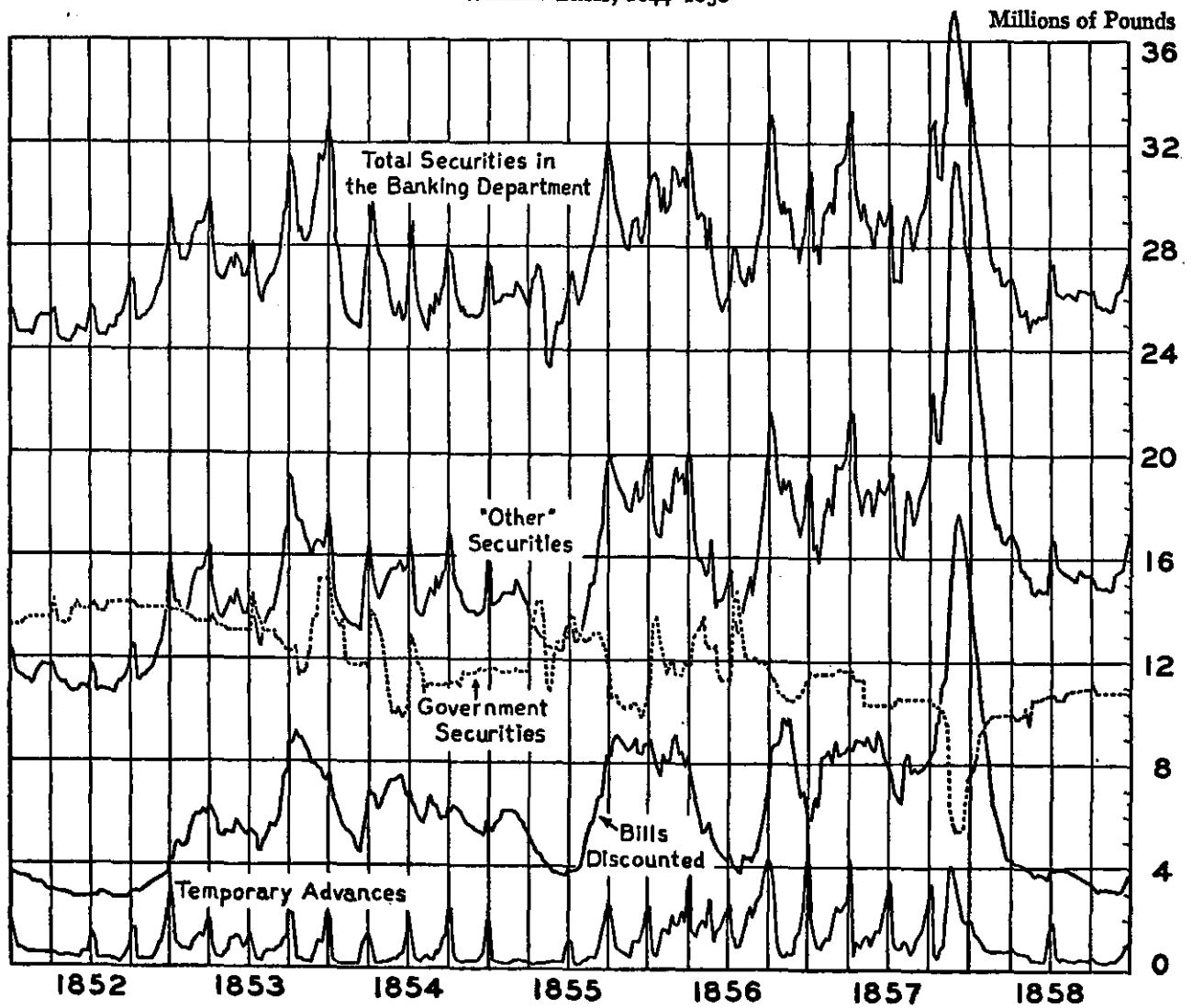


CHART XV
PUBLIC AND PRIVATE DEPOSITS AT THE BANK
WEEKLY BASIS, 1844-1858

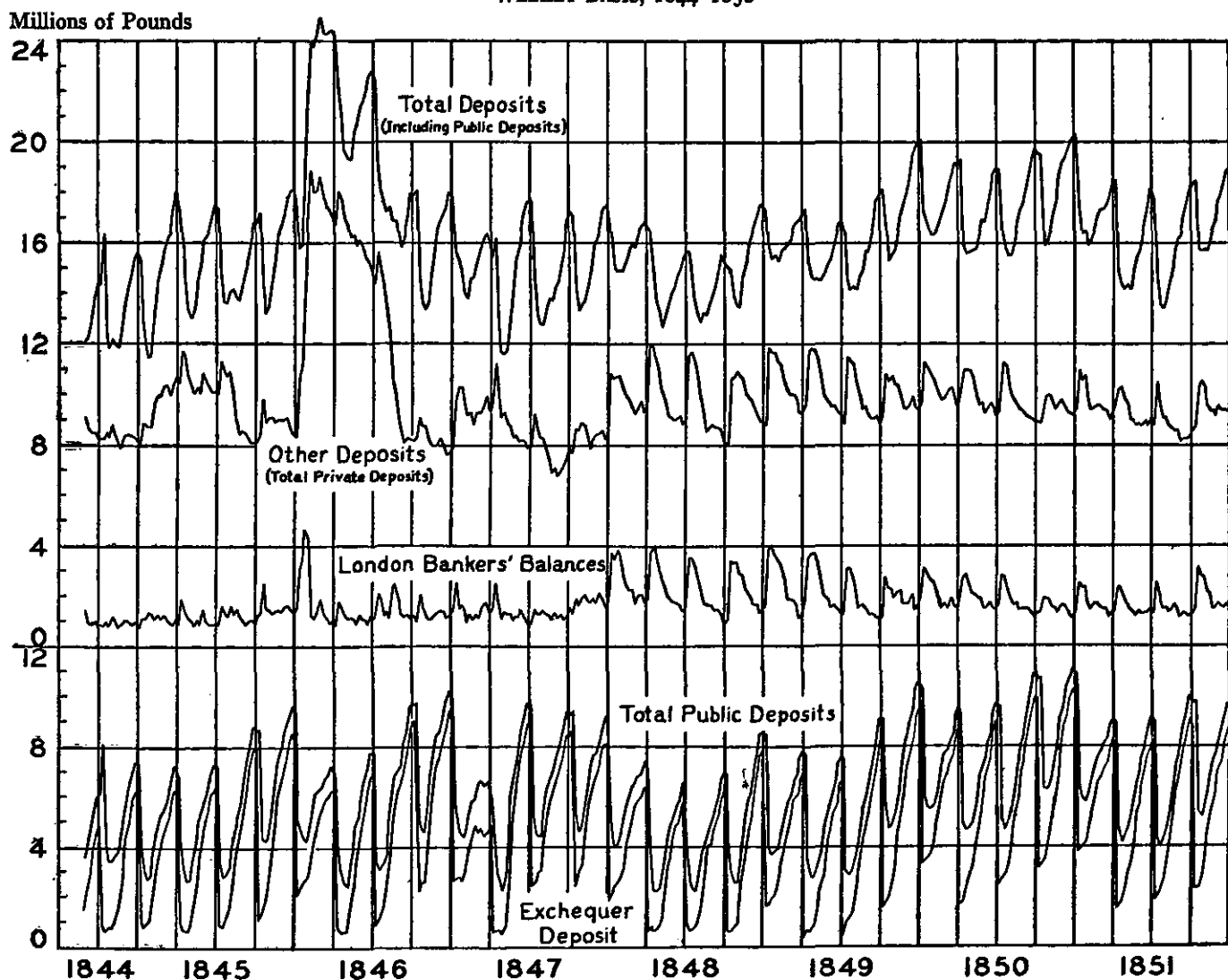


CHART XV (*continued*)
PUBLIC AND PRIVATE DEPOSITS AT THE BANK
WEEKLY BASIS, 1844-1858

Millions of Pounds

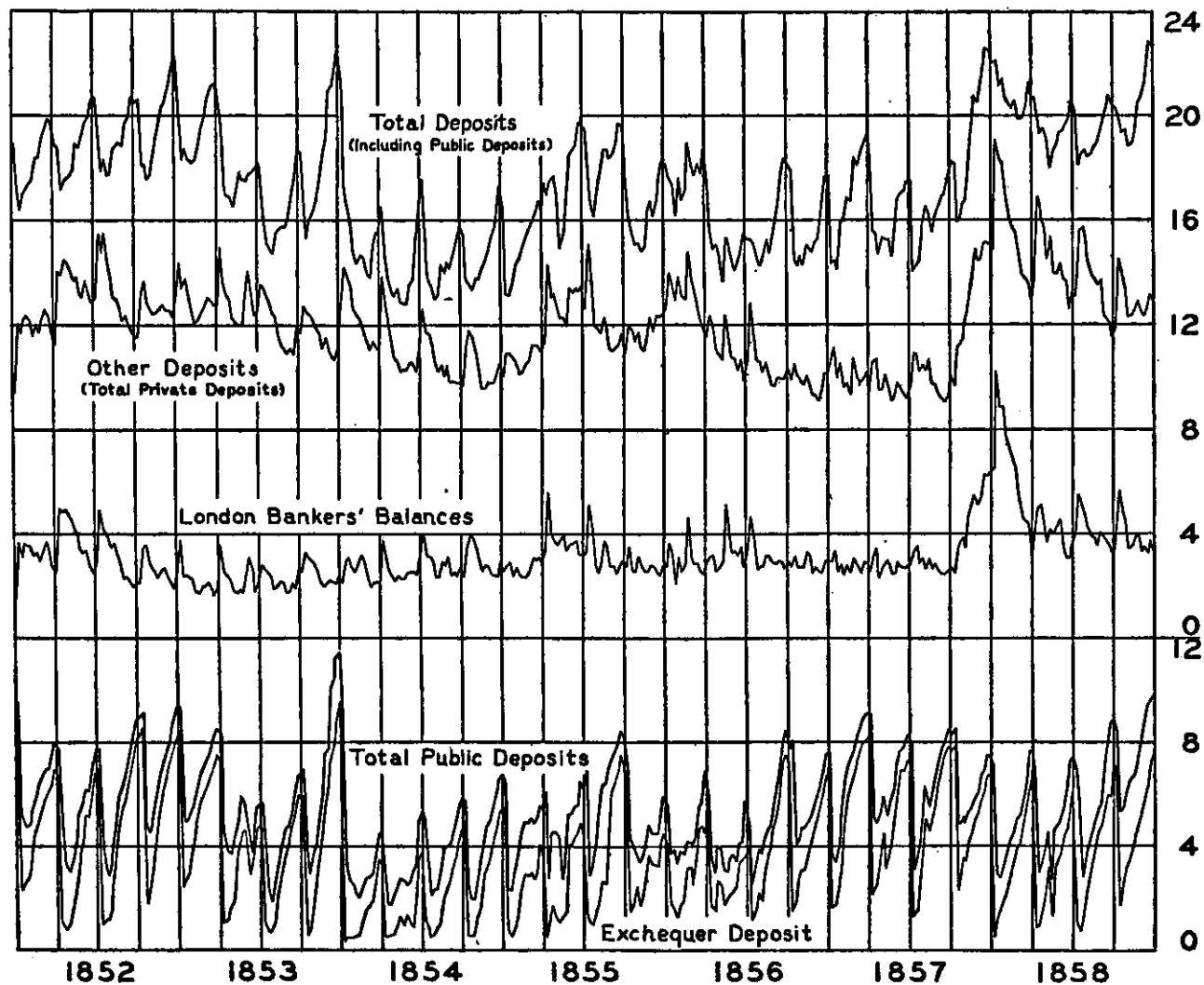


CHART XVI
CIRCULATION OF THE COUNTRY BANKS AND OF THE BANK OF ENGLAND
 MONTHLY BASIS UNTIL JULY, 1841; BASIS OF FOUR WEEKS THEREAFTER

Millions of Pounds

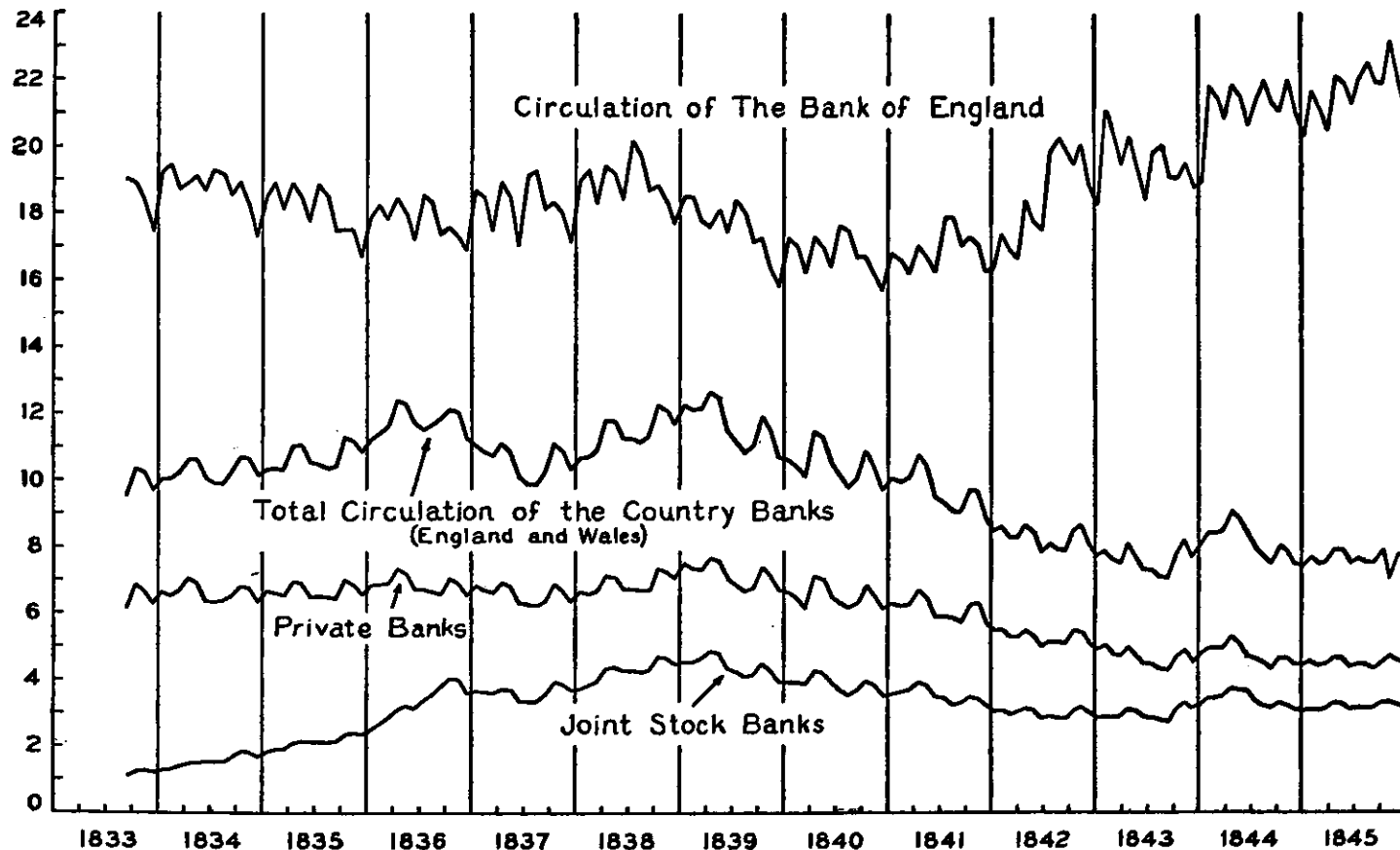


CHART XVI (continued)
CIRCULATION OF THE COUNTRY BANKS AND OF THE BANK OF ENGLAND
 MONTHLY BASIS UNTIL JULY, 1841; BASIS OF FOUR WEEKS THEREAFTER

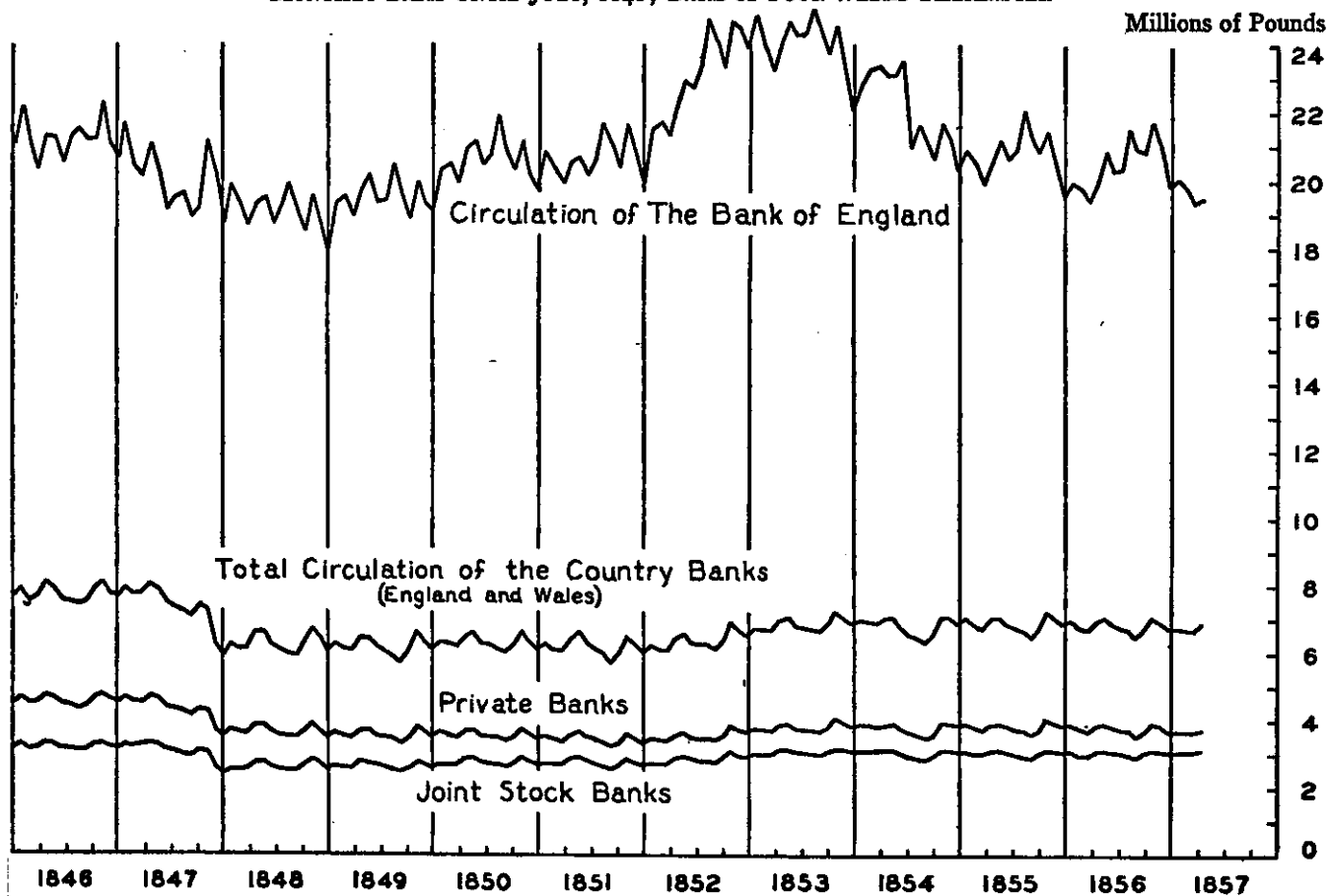


CHART XVII
SECURITIES, BULLION, AND BANKING RESERVE
BANK OF ENGLAND. YEARLY AVERAGES, 1844-1909

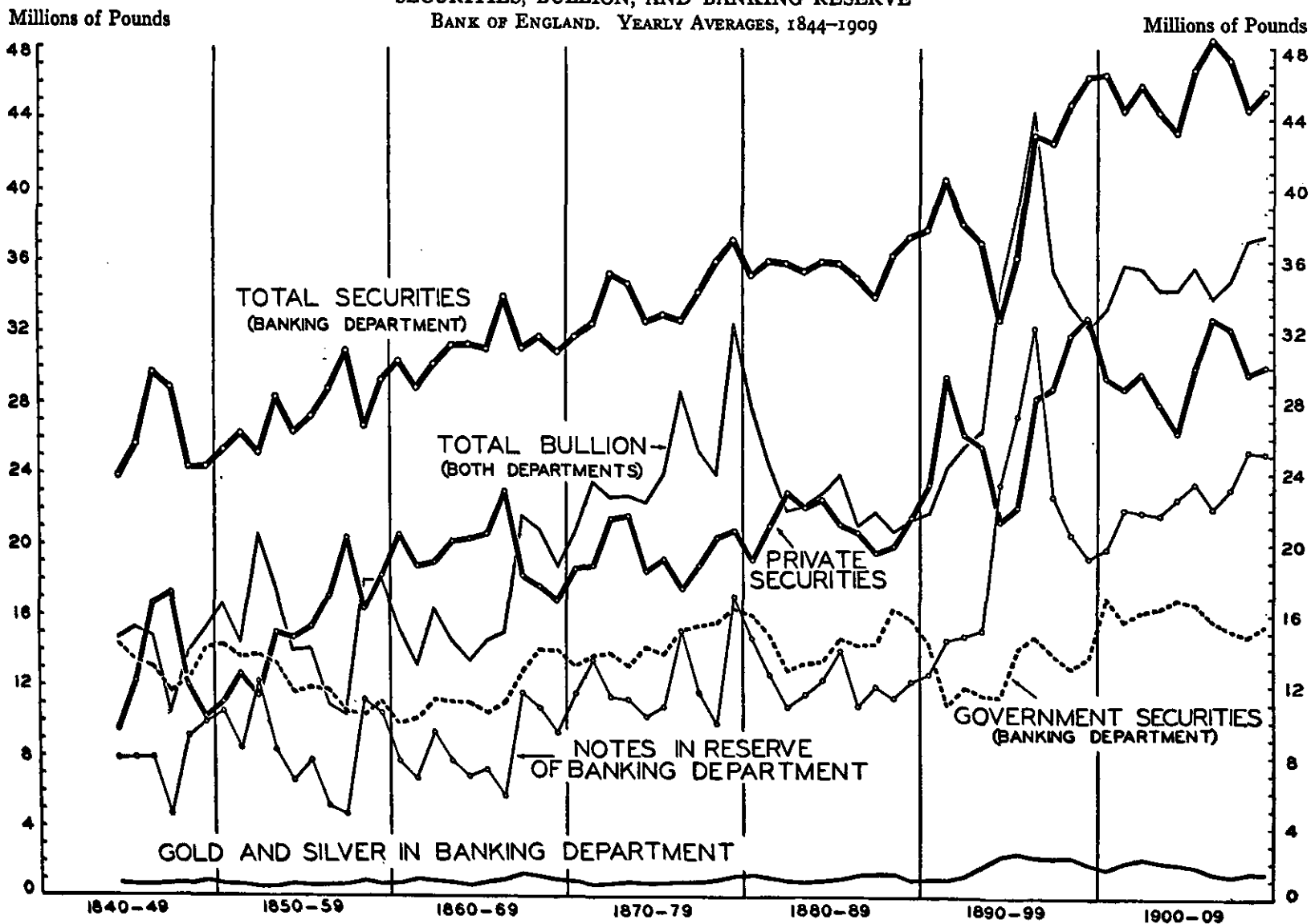


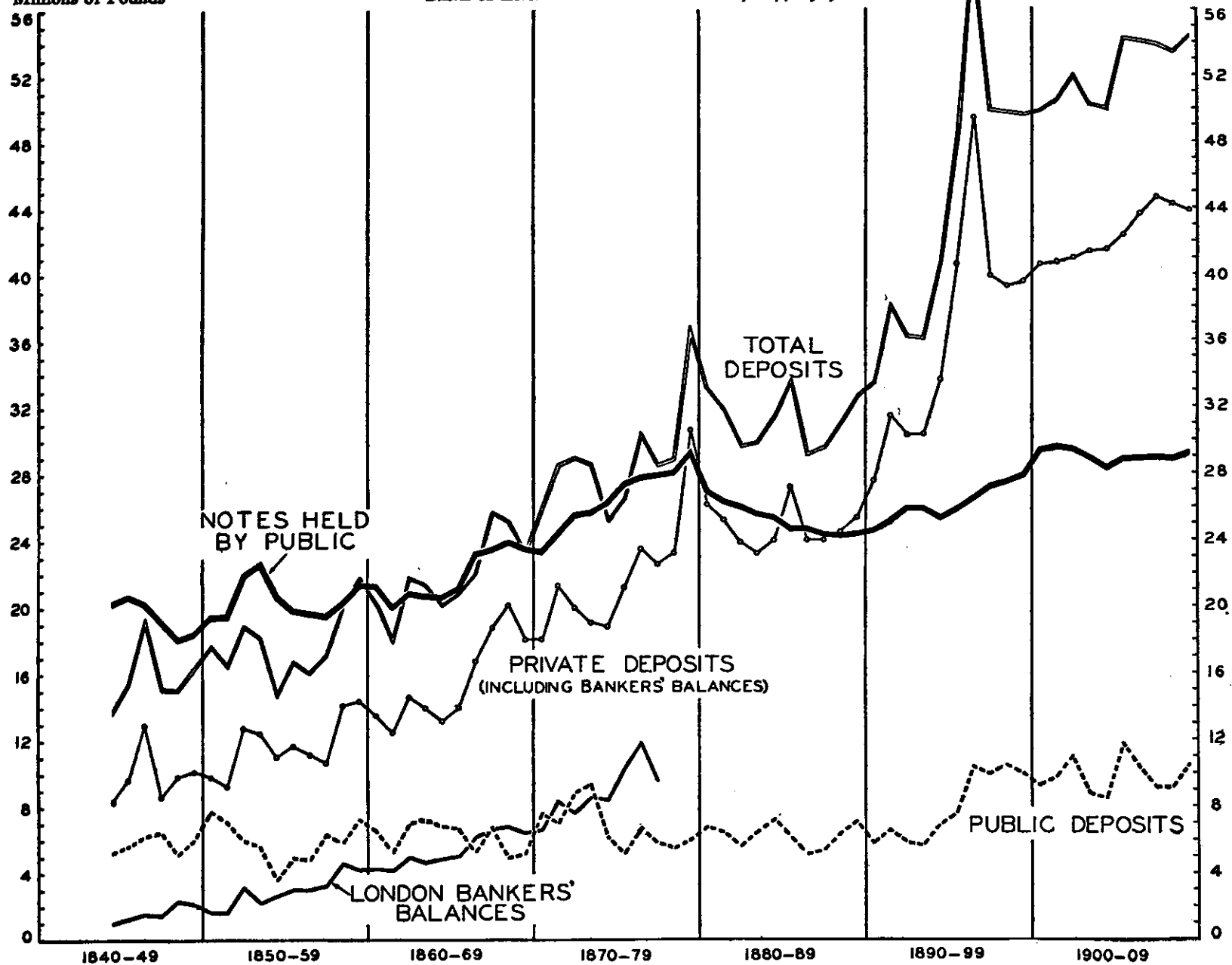
CHART XVIII

CIRCULATION AND DEPOSITS

BANK OF ENGLAND. YEARLY AVERAGES, 1844-1909

Millions of Pounds

Millions of Pounds



BIBLIOGRAPHY

BIBLIOGRAPHY

I. REPORTS OF COMMITTEES ON MONETARY SUBJECTS

(arranged chronologically)

This first group of official papers contains only the reports of committees (or commissions) whose principal object was to investigate monetary matters. These reports, together with their accompanying minutes of evidence and appendices, contain the most important source material. They are cited in the footnotes by the date or abbreviation that in the list below precedes the catch title preserved here for convenience of identification. Thus "Ev., H.L. 1819" refers to evidence before the Lords Committee on the Resumption of Cash Payments, 1819, found in the Reports . . . P.P. 1819, III, the sixth item listed in this section. The abbreviation "H.C." is given only where committees from both Houses bore similar names at about the same time.

1793. **COMMERCIAL CREDIT.** *Report from the Select Committee Appointed to Take into Consideration the Present State of Commercial Credit: Appendix (1793).* Parliamentary Papers 1826, vol. III.
- H.L. 1797. **RELATING TO THE BANK.** *Report of the Lords' Committee of Secrecy. Order of Council 26th February 1797; Relating to the Bank. Minutes of Evidence 9th March to 27th April 1797; Accounts and Papers; and Report. Ordered, by the House of Commons, to be printed, 6th February 1810.* P.P. 1810, I.
- H.C. 1797. **BANK OF ENGLAND.** *Reports from the Committees of Secrecy (1797) on the Outstanding Demands of the Bank of England (1797).* P.P. 1826, III.
1804. **IRISH CURRENCY AND EXCHANGE.** *Report, Minutes of Evidence, and Appendix, from the Committee on the Circulating Paper, the Specie, and the Current Coin of Ireland; and also, on the Exchange between that Part of the United Kingdom and Great Britain. Ordered, by The House of Commons, to be printed, 4th, 14th, & 16th May, and 13th June 1804: And to be Reprinted, 9th February 1810. Reprinted, P.P. 1810, I.*
1810. **HIGH PRICE OF GOLD BULLION.** *Report, together with the Minutes of Evidence, and Accounts, from the Select Committee on the High Price of Gold Bullion.* P.P. 1810, III.
- H.L. 1819. **RESUMPTION OF CASH PAYMENTS.** *Reports by the Lords Committees Appointed a Secret Committee to Enquire into the State of the Bank of England; with reference to the Expediency of the Resumption of Cash Payments: with Minutes of Evidence and an Appendix.* P.P. 1819, III.
- H.C. 1819. **RESUMING CASH PAYMENTS.** *Reports from the Secret Committee on the Expediency of the Bank Resuming Cash Payments. Minutes of Evidence and Appendix.* P.P. 1819, III.
- H.C. 1826. **PROMISSORY NOTES.** *Report from the Select Committee on Promissory Notes in Scotland and Ireland.* P.P. 1826, III.
- H.L. 1826. **PROMISSORY NOTES.** *Report from the Lords Committees Appointed a Select Committee to inquire into the State of Circulation of Promissory Notes under the Value of £.5 in Scotland and Ireland, and to report to The House. Minutes of Evidence and Appendix (1826).* P.P. 1826-27, VI.
1832. **BANK OF ENGLAND CHARTER.** *Report from the Committee of Secrecy on the Bank of England Charter; with the Minutes of Evidence, Appendix and Index.* P.P. 1831-32, VI.
- 1836, 1837, 1838. **JOINT STOCK BANKS.** *Report from the Secret Committee on Joint Stock Banks; together with the Minutes of Evidence, etc.* P.P. 1836, IX; P.P. 1837, XIV; P.P. 1837-38, VII.
1840. **BANKS OF ISSUE.** *Report from Select Committee on Banks of Issue; with the Minutes of Evidence, Appendix, and Index.* P.P. 1840, IV.
1841. **BANKS OF ISSUE.** *First Report from Select Committee on Banks of Issue (1841) and Second Report . . . ; with the Minutes of Evidence, Appendix, and Index.* P.P. 1841, Session January to June, V.
- H.C. 1848. **COMMERCIAL DISTRESS.** *First Report from the Secret Committee on Commercial Distress and Second Report . . . ; with Minutes of Evidence.* P.P. 1847-48, VIII, pt. i. *Appendix, P.P. 1847-48, VIII, pt. ii.*
- H.L. 1848. **COMMERCIAL DISTRESS.** *Report from the Secret Committee of the House of Lords, Appointed to Inquire into the Causes of the Distress which has for some time prevailed among the Commercial Classes, and how far it has been affected by the Laws for regulating the Issue of Bank Notes payable on Demand, Together with the Minutes of Evidence, and an Appendix.* P.P. 1847-48, VIII, pt. iii, reprinted in P.P. 1857, First Session, II.

1857. BANK ACTS. *Report from the Select Committee on Bank Acts; Together with the Proceedings of the Committee, Minutes of Evidence, Appendix and Index.* P.P. 1857, Second Session, X, pts. i and ii.
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1875. BANKS OF ISSUE. *Report from the Select Committee on Banks of Issue; together with the Proceedings of the Committee, Minutes of Evidence, and Appendix.* P.P. 1875, ix.
- 1886, 1887, 1888. GOLD AND SILVER COMMISSION. *First Report of the Royal Commission Appointed to Inquire into the Recent Changes in the Relative Values of the Precious Metals; with Minutes of Evidence and Appendices* (1886) [c. 5099] P.P. 1887, xxii. *Second Report* (1887) [c. 5248] P.P. 1888, xlv. *Final Report* (1888) [c. 5512, c. 5512-I] P.P. 1888, xlv.
1899. INDIAN CURRENCY COMMITTEE (FOWLER COMMITTEE). *Report of the Committee Appointed to Inquire into the Indian Currency* [c. 9390] P.P. 1899, xxxi. *Minutes of Evidence*, pt. i [c. 9037] P.P. 1898, lxi; pt. ii [c. 9222] P.P. 1899, xxxi. *Index and Appendices* [c. 9376] P.P. 1899, xxxi.
- 1918, 1919. CURRENCY AND FOREIGN EXCHANGES (CUNLIFFE COMMITTEE). *First Interim Report* [Cd. 9182] P.P. 1918, vii. *Final Report*, [Cd. 464] P.P. 1919, xiii, pt. i.
1925. CURRENCY AND BANK OF ENGLAND NOTE ISSUES. *Report of the Committee on the Currency and Bank of England Note Issues.* [Cd. 2393] P.P. 1924-25, ix.
1931. FINANCE AND INDUSTRY (MACMILLAN COMMITTEE). *Committee on Finance and Industry: Report Presented to Parliament by the Financial Secretary to the Treasury by Command of His Majesty, June 1931.* [Cd. 3897] P.P. 1930-31, xiii. Contains the report of the MacMillan Committee, appointed by the Treasury. Minutes of Evidence (in two volumes) are available but do not accompany the Report in the bound series.
2. OTHER OFFICIAL PAPERS
(arranged chronologically)
- In this supplementary group of official papers are listed the reports of committees which dealt with monetary subjects rather incidentally, such as the committees investigating agricultural distress. Also in this group are some of the more important miscellaneous returns, such as copies of correspondence, Treasury minutes, and data supplied by the Bank and by various government offices. These papers are cited by a short title (or brief description where the short title seems insufficient) and by the "paper" number where several papers are bound in the same volume. The "paper" number is given in round brackets immediately before the volume number.
1807. THE BANK. *Second Report from the Committee on the Public Expenditure, &c. of the United Kingdom.* P.P. 1807, Finance, etc., (108), ii.
1821. DEPRESSED STATE OF AGRICULTURE. *Report from the Select Committee, to whom the Several Petitions complaining of the Depressed State of the Agriculture of the United Kingdom were referred.* With Minutes of Evidence and Appendix. P.P. 1821, ix.
1822. DEPRESSED STATE OF AGRICULTURE. *Report from the Select Committee Appointed to Inquire into the Allegations of the Several Petitions presented to the House . . . complaining of the Distressed State of the Agriculture of the United Kingdom.* P.P. 1822, v.
1822. BANK OF ENGLAND. . . . *Correspondence between His Majesty's Government and the Governor and Company of the Bank of England on the Subject of the proposed Renewal or Extension of the Bank of England Charter.* (Includes a statement of the Government's determination to extend the privilege of issuing small notes until August, 1833.) P.P. 1822, (316), xxi.
1822. FIVE PER CENTS. . . . *Letter from the Earl of Liverpool and Mr. Vansittart to the Governor and Deputy Governor of the Bank, respecting the Payment of Holders of 5 Per Cents, who dissent from taking 4 Per Cents.* P.P. 1822, (497), xxi.
1826. BANK OF ENGLAND. . . . *Communications between the First Lord of the Treasury and the Chancellor of the Exchequer, and the Governor and Deputy Governor of the Bank of England; relating to an Alteration of the exclusive Privileges enjoyed by the Bank of England.* P.P. 1806). Sixth edition, 1927.
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