Chapter 3

The Key Role of the Clearinghouse

It is notable that discussion of information deficiencies and asymmetries, and of the possible role of insurance in such circumstances, which will generally feature prominently in any modern discussion of the need for (Central Bank) regulation/supervision over banks (and which will be further considered in chapters 5—7) did not play much of a role in the debates on free banking in the nineteenth century. [1] Instead, the discussion centered much more around the question of whether there were quasi-automatic market mechanisms that would restrain any attempt by a private banker to expand business excessively rapidly.

It was argued that, so long as an effective clearinghouse system operated, any single bank that expanded the size of its book more rapidly than the average would find its balance at the clearing becoming adverse, and would be forced to pay out legal tender reserves. This check on excessive expansion would operate whether the liabilities issued by the expanding bank against its increased loans were in the form of deposits or notes, though there was some presumption that the recipient of a bank check would be more likely to pay it in quickly to his own bank than would a recipient of a bank note, so the restraining process would work even quicker and more effectively on a bank with liabilities primarily in deposit form—see Smith, The Rationale of Central Banking, especially pp. 62—63, 86, 107, 157—162, 174—176. The earliest expression of these ideas in detail in the United Kingdom is to be found in Sir Henry Parnell's pamphlet (1827) "Observations on Paper Money, Banking and Overtrading, Including Those Parts of the Evidence Taken before the Committee of the House of Commons Which Explained the Scotch System of Banking." [2]

There are two flaws in this analysis. The first, which was considered at some length by Smith and the earlier economists engaged in the free-banking debate, is that the clearinghouse mechanism tends to lead all banks to expand, or to contract, at a broadly similar rate, but does not itself determine what the resulting average rate of growth might be, nor whether it would be stable, or subject to sharp fluctuations. The second, even more serious, flaw, as it now appears in a modern context, is that neither Smith nor apparently earlier economists had considered the possibility of more aggressive banks seeking to prevent the clearinghouse losses that would result from rapid expansion by making their liabilities relatively more attracfive. Thus a bank, or any financial intermediary, aiming to achieve faster (than average) growth will tend to offer higher (than average) rates of interest, or other inducements, on deposits. That possibility would allow them to check the automatic mechanism of clearinghouse losses. Moreover, it places particular pressures on the informational requirements of ordinary depositors. If a bank, or other financial intermediary, is paying over-the-odds for deposits, is that because it is favored by greater efficiency or is undertaking a riskier strategy? In this context, and against the background of the earlier free-banking debates, it is easier to appreciate why the United States authorities reacted to bank failures in the 1930s by placing restraints on the payment of interest on bank deposits.

It may be argued that this problem, i.e., bank bidding for additional liabilities, does not apply in the case of notes, since these are noninterest bearing. But this need not necessarily be so. Bills of exchange were used to make payments in the United Kingdom in some regions outside London in the early part of the nineteenth century. In the event, despite the free-banking controversy, note issue in most countries was either unified in a monopoly bank of issue or heavily constrained in terms of requisite asset backing by the middle of the nineteenth century. If that had not happened, banks might have sought to have taken advantage of Gresham's law to keep their notes held outside for longer in hoards, by offering a premium (i.e., a rate of interest) if redeemed after some fixed date. They did so, indeed, in Scotland. Vaubel (1984a, p. 71, footnote 3) states that "until 1765, runs on the note-issuing banks were preThe

vented by the so-called 'optional clause', first introduced by the Bank of Scotland in the 1730s. The clause, printed on the bank notes, gave the issuer the option of paying the bearer with interest at six months after sight rather than on demand. The optional clause was prohibited by Parliament in 1765." Also see King (1983, p. 155) for an account of the practice of issuing 'post notes," i.e., issues payable at a fixed future date, either with or without explicit interest, in New York in the early 1800s. And Trivoli (1979, p. 10) reports that Boston banks issued interest-bearing notes for four years from 1825 to 1828: "... in an attempt to reduce the competition of country banks." His table on notes in circulation in Boston (table 1, p. 11) shows that such notes more than doubled during these years. There are several references in Cameron (1967) to the payment of interest on paper circulating as media of exchange; e.g., the use of bills of exchange in this role in England in the eighteenth and early nineteenth centuries, pp. 50—51; the optional clause in Scotland prior to 1765, pp. 68—70; the billets å ordre of the Caisse Generale in France in the mid-nineteenth century, p. 107; and in the chapter "Germany, 1815—1870" by Tilly, the account of the German system of bill currency, pp. 170—171. For a further reference to the interest-bearing sight bills of the Caisse

Generale (183 7— 1847), see Liesse (1911, p. 74). In Sweden the national debt office in 1789 'created a new circulating medium in the shape of certificates bearing interest at 3 per cent, and of small face value"—see Flux (1911).

Be that as it may, an effectively working clearinghouse was seen in the earlier nineteenth century as an essential discipline on overissue—more important, perhaps, in this role than were the actions of the nascent central banks. It would be a mistake, however, to view the two institutions as alternatives. Instead, their roles became increasingly complementary. As a prime example, consider the history of the Suffolk bank system, as reported in Smith, The Rationale of Central Banking (p. 42); because of its relevance, it is reproduced in full below:

A major deficiency over the whole of the American banking structure had long been the infrequency of the return of notes to their issuers. One of the earliest and most successful attempts to secure that notes were redeemed more often was a voluntary system put into force by the Suffolk Bank of Massachusetts. Bank-notes circulated at places distant from their issuing bank at discounts varying with the difficulty of send-ing them home for redemption. The smaller was the chance of its notes being presented for payment, the larger was the volume of notes that a bank could safely issue. The result of the lack of any machinery for ensuring the collection of notes was therefore that banks began purposely to place themselves at long distances from the most important centres of business. This was what happened in Massachusetts. The banks of Boston found themselves at a distinct disadvantage because the country banks were securing practically the entire circulation even in Boston. Large numbers of country bank-notes never returned to the banks that had issued them, but remained in Boston circulating without hindrance at the recognised rate of discount. The Boston banks made several attempts to systemise the sending back of notes for redemption. The most successful was the Suffolk Bank system [started in 1819]. This bank arranged for New England country banks to keep with it permanent deposits of $5,000 plus a further sum sufficient to redeem notes reaching Boston. The Suffolk undertook to receive at par the notes of banks who made such deposits, and the notes of country banks who refused to come into the scheme would be sent back for redemption. The Suffolk Bank, moreover, refused admittance to its clearing agency to banks whose integrity was not above suspicion. This had the intended effect of curtailing the circulations of the country banks.

The point of this example is that the Suffolk bank, in furtherance of its actions to operate the clearing system effectively, was patently beginning to take on several of the functions of a proper Central Bank, e.g., acting as a bankers' bank and undertaking certain forms of supervision. For a longer account of the role and operations of the Suffolk Bank system, see Trivoli (1979), who describes the bank (pp. 18—19) as "... acting in some limited respects as a central bank for New England prior to the advent of the Bank of Mutual Redemption in 1858."

This "free enterprise" development of central banking functions was noted by Shenfield (1984) in his comment on Vaubel (1984a); thus he writes (p. 74): "11 appears to me that this [history of the Suffolk Bank] merits fuller treatment, for it illustrates how a successful central banking system can emerge under entirely free conditions in which all transactions are voluntary." Also, see the account of this process in Salin (1984a, pp. 16—17). Salin accepts that there will be a natural evolution of central banking, but that privately developing central banks would probably limit themselves to "reinsurance" and not act as a "lender of last resort," the latter development not being "possible without public intervention." In my view this latter distinction is historically inaccurate and has no logical foundation. Also, see Timberlake (1984), who, describing the earlier history of US clearinghouses, wrote (p. 3) that "originally, one bank in the association was assigned the 'central' administration role for clearing the other member banks' accounts. Each bank kept part of its specie (and later, greenback) reserve as a deposit with this bank. . . ."

In those cases where a bank was already of particular importance, e.g., owing to a privileged position as banker to the government and (monopolist) note issuer, it would be likely to play a dominant role in the clearing process. In countries with unit banks and country and regional banks, there would normally develop a tendency toward a correspondent system, with a centralization of interbank deposits. [3] Only in those cases where the banking system was, from the outset, based on a limited number of (oligopolistic) branching banks, all of whom could participate, more or less equally, in the main clearing centers, were such centripetal forces held at bay. The two main examples of this latter are Scotland and Canada.

Moreover, there are likely to be informational asymmetries between the knowledge that nonbank individuals have of the standing, strategy, and riskiness of the banks in any region/ country/ market, and the knowledge that banks have of each other. Transaction costs will ensure that, except for governments and the largest customers, individuals will only deal with a handful of banks. Banks, on the other hand, will be regularly dealing with a wide range of other banks and financial institutions. Competition should ensure that banks see what types of business are refused elsewhere, and what types of business that they had held are attracted elsewhere. Being in the business is bound to give banks a greater insight into the strategies, etc., pursued by other banks than can possibly be available to the general nonbank client, whether directly or from market signal. Insofar as the availability and accuracy of interbank knowledge about comparative banking status and behavior is much superior to that of nonbank individuals, it should follow that concentration of interbank deposits in those banks with the strongest standing and most prudent behavior is likely to be more pronounced than the ability of the general public to direct its funds to the same banks.

There are, of course, several reasons why a bank, especially a small, localized bank, would want to place interbank deposits with another larger, centralized bank. Such deposits generally provide a higher-earning form of holding liquid reserves than, say, holding gold, and, given the reputation of the large bank at the center, are just about as safe. The bank at the center can also provide various correspondent services and facilitate payments, participations, and introductions to the smaller local bank, and, perhaps, services (e.g., credit cards), to the local bank's clients that would not otherwise be available.[4] As Henry Thornton, An Enquiry into the Nature and Effects of the Paper Credit of Great Britain, put it (p. 155), "The creation of the large bank operates as a premium on the institution of the smaller."

The benefits of such correspondent features are well understood. My additional claim is that the informational advantages possessed by banks would be likely to lead to a concentration of such interbank balances among a few, central, well-established commercial banks, in some cases one or two banks. This would often happen naturally and would not require the prior existence of a Central Bank. This process occurred in the United States under the national banking system, 1863—1913, though it was encouraged and codified by the different treatment of reserves in the various classes of banks, i.e., country, reserve city, and central reserve city banks, established by the National Bank Act, 1863. Thus Smith, The Rationale of Central Banking, pp. 137—138, wrote, "The conspicuous position held by the banks of New York city in this respect—in 1912 six or seven of them held between about three-quarters of all the banks' balances—seemed to point to the existence of spontaneous tendencies to the pyramiding and centralisation of reserves and the natural development of a quasi-central banking agency, even if one is not superimposed." [5]

This process of natural centralization was given a further impetus in many countries by the need for the state to employ a bank to carry out certain financial functions for it, such as issuing notes, holding deposits, making payments, and arranging loans at home and abroad. In a few cases where the banking system was oligopolistic, as in Canada, or where a sizeable number of competitive large banks existed, as in the United States, the Treasury (in Canada the Department of Finance) [6] assumed some of these Central Banking functions itself prior to the establishment of the country's Central Bank. In many other countries, notably those in the British Commonwealth, the norm was for the state to use a leading locally chartered bank to carry out banking functions for it. This bank would then also undertake certain quasi-Central Banking roles. There are many examples: the trading banks established in the Australian States, such as the Bank of New South Wales, the Bank of Adelaide, and the Queensland National Bank; [7] the Bank of New Zealand; [8] the Imperial Bank of India; [9] the Bank of Ireland; [10] the Hong Kong and Shanghai Bank; and the Banco do Brazil—a whole list of others could be added. Not only did colonial governments require banking functions locally, but also they were regularly involved in financial transactions with the home country, for which they needed financial advice and assistance. Many of the British colonies used the London and Westminster Bank for this purpose toward the end of the nineteenth century, which provided quasi-Central Banking functions in London to the colonial governments. Thus I wrote (1972, p. 13 7), "The London and Westminster acted in many ways as a central bank for these colonies, providing loans and market advice, organizing their issues on the market, undertaking the paper work necessary, and keeping the books."

It is worthy of note that when such countries came to establish a Central Bank, they more often established an entirely new institution, started de novo, rather than attempting to build on the quasiCentral Banking functions already available in the leading commercial bank(s). Examples are to be found in the Reserve Bank of India, the Reserve Bank of New Zealand, the Central Bank of Ireland, and the Central Bank of Brazil. If full, legally recognized Central Banking functions had been grafted onto a large commercial banking business, it would mean, as argued further below, that an active competitor was being put in a position to regulate, supervise, and decide whether to support its rivals for business, which (I argue) would involve serious conflicts of interest.

A partial exception to this is to be found in the Commonwealth Bank of Australia. It was founded in 1911 more as a regular trading bank than as a Central Bank; e.g., note issue remained initially in the hands of the Federal Treasury. [11] It developed, however, further Central Banking functions during the interwar period, e.g., note issue, though Wilson describes its position in 1936 as "not strong," and "in September 1939 the Commonwealth Bank still lacked the powers of a fully-developed central bank." [12]

Nevertheless, in 1945, the Labour Government introduced an Act both "to strengthen the central banking functions of the Commonwealth Bank" and at the same time ''to expand the Bank's ordinary banking business by active competition with trading banks, conducted in a department the accounts of which would be kept separate from those of the central bank proper." [12] Naturally this led to some concern, particularly among its competitors, since 'a central bank must lose something in objectivity when it is a question of deciding advance policy for one or other of its own trading departments." [14] Yet it was not until 1960, with the founding of the Reserve Bank of Australia and its separation from the Commonwealth Bank Holding Company, that the standard division, between noncompetitive, non-profit-maximizing Central Bank and commercial banking, was finally introduced.

There are some further counterexamples to the normal tendency of countries to establish a Central Bank de novo rather than base it on an existing major commercial bank. Besides the Australian case, both the Central Banks of Egypt and Iran budded off from the main commercial banks of each country, the National Bank of Egypt and the Bank Melli, respectively. I am indebted to P. Edgeworth for this information.

Even where there is no impetus toward centralization arising from the needs of the state, the existence within the banking system of a part that is made up of small, largely independent units—even if the rest consists of institutions with large branch networks—will often lead these smaller units, often savings banks, to seek certain quasi-Central Banking functions within the system, often not from the ordained Central Bank but from a special institution set up for the purpose, such as the Central Trustee Savings Bank in the United Kingdom, or from a central commercial bank. An example of the latter occurred when the Dresdner Bank acted as a Central Bank to the Schulze-Delitsch savings banks in Germany at the end of the nineteenth century.15,16 So there is a natural market process whereby banks, at least in any unit banking system, will tend to place deposits with another large, centralized, conservatively run commercial bank. This concentration of bank deposits with some central commercial bank(s), however, leads to certain problems becoming apparent.

In particular, the extent of centralization of reserves, and the provision of services, including insurance services, that will be utilized through interbank deposits between correspondent banks and a central commercial bank will be restricted through perceived conflicts of interest. The range of possible conflict between potential competitors in this respect is considerable. For example, it was stated earlier that one of the main functions of the clearinghouse was to maintain discipline on overissue by returning notes and deposits to issuing banks for redemption. Insofar as that function is carried out by one main bank, the conduct of that discipline may be seen by competitors as, and may indeed in some cases actually be, unfair, and certainly unwanted, competition. The opposition of such competitors, the state banks in the United States, was a chief reason for the successful political attacks on the First and Second Banks of the United States. [17] Thus Smith, The Rationale of Central Banking, pp. 37—40, argued (notably on p. 40) that "The chief objection brought by the latter [state banks] against the Bank was that it 'accumulated their notes and then presented them for redemption in coin'."

The same tensions arose between the Suffolk Bank in Boston and the country banks; thus Trivoli (1979), writes,

Furthermore, the country banks had always objected to being forced to redeem their notes in Boston through the maintenance of deposits at the Suffolk Bank even though they enjoyed the advantage derived from the wide circulation of their notes at par. They had also objected to the restriction of the circulation of individual banks and the control over their activities possessed by the Suffolk Bank. The immediate reason for the final collapse of the system lay in the autocratic attitude of the Suffolk Bank toward the country banks, which was a natural but regrettable result of the unprecedented success of the system.

Insofar as the central commercial bank(s) is a competitor, other banks will be unhappy about placing deposits with it that increase the size of its book. This was a continuous concern of the London Clearing Banks in their dealings with the Bank of

England in the late nineteenth century [18]—see, for example, Goodhart (1972, pp. 105— 107). In a similar vein, Wilson (1952a, p. 220) reported that "initially, the Imperial Bank [of India] operated fairly successfully as a bankers' bank, holding balances for the other banks and even mak-ing advances to them. However, the fact that it also operated as a commercial bank had the effect of restricting the use that might have been made of it by the other banks, which were somewhat averse to seeking assistance from a competitor."

Moreover, there may always be, or it may be feared that there would be, a temptation for the central commercial banks to take the opportunity of a crisis to force a competitor out of business by not providing the loans/assistance that in more normal times a correspondent could have expected as a natural concomitant of the relationship. Since it is now argued that support/supervisory quasiCentral Banking activities may be provided by clearinghouses, rather than (or as well as) by dominant competitive commercial banks, it is as well to note that such commercial conflicts of interest may also exist in this latter case. Such conflicts appeared to play a part in the 1907 financial crisis occurring in New York—see Goodhart (1969, pp. 118/119).

Because the existence of such conflicts of interest is so important to the case for a natural need for a (noncompetitive, non-profitmaximizing) Central Bank, it may be worth documenting a number of examples of commercial rivalries between the central commercial bank(s) and its customers/ correspondents leading to some unwill-ingness of the central bank to lend.

The first example, taken from Thornton, An Enquiry into the Nature and Effects of the Paper Credit of Great Britain (p. 174), relates to the 1793 crisis. The centralized system placed much of the requirement for keeping the country's gold reserve on the Bank of England:

Thus the country banker by no means bears his own burthen, while the Bank of England sustains a burthen which is not its own, and which we may naturally suppose that it does not very cheerfully endure. At the time of the distress of 1793, some great and opulent country banks applied to the Bank of England for aid, in the shape of discount, which was refused on account of their not offering approved London securities: some immediate and important failures were the consequence. The Bank of England was indisposed to extend its aid to houses in the country. The event, however, showed that the relief of the country was necessary to the solvency of the metropolis. A sense of the unfairness of the burden cast on the Bank by the large and sudden demands of the banking establishments in the country, probably contributed to produce an unwillingness to grant them relief.

The second example, reported by Vaubel, "Currency Competition in Monetary History" (1980 unpublished), concerns competition between the Bank of England and note-issuing joint-stock banks (outside the London area) in the 1830s. Vaubel writes (p. 4), ''While initially 90 per cent of the newly founded joint-stock banks issued notes, this proportion decreased considerably when, in the second half of the 1830s, the Bank of England started to refuse to rediscount bills for joint-stock banks of issue and granted special facilities to those banks that handled its notes instead of their own."

Also see Cameron (1967, p. 29—from whose work Vaubel was quoting). This example is given further point by Matthews (1954), who states (p. 196) that "it was this that was the immediate cause of the failure of the Northern and Central, for the refusal of the Bank of England in 1836 to discount bills bearing the endorsement of any joint-stock bank of issue [italics in original] made such bills unpopular in the London market unless their soundness was unquestionable." Also see an account in Matthews (1954, p. 178) of the Bank of England placing commercial pressures on other banks . to abandon their own circulation.',

The third example, taken from Bagehot, Lombard Street (pp. 280–282), pertains to relationships between the Bank of England and bill brokers in the years 185 7/58:

The Bank of England never deposits any money with the billbrokers; in ordinary times it never derives any advantage from them. On the other hand, as the Bank carries on itself a large discount business, as it considers that it is itself competent to lend on all kinds of bills, the bill-brokers are its most formidable rivals. As they constantly give high rates for money it is necessary that they should undersell the Bank, and in ordinary times they do undersell it. But as the Bank of England alone keeps the final banking reserve, the bill-brokers of necessity have to resort to that final reserve; so that at every panic, and by the essential constitution of the Money Market, the Bank of England has to help, has to maintain in existence, the dealers, who never in return help the Bank at any time, but who are in ordinary times its closest competitors and its keenest rivals.

It might be expected that such a state of things would cause much discontent at the Bank of England, and in matter of fact there has been much discussion about it, and much objection taken to it. After the panic of 1857, this was so especially. . . . Not unnaturally, the Bank thought it unreasonable that so large an inroad upon their resources should be made by their rivals. In consequence, in 1858 they made a rule that they would only advance to the bill brokers at certain seasons of the year, when the public money is particularly large at the Bank, and that at other times any application for an advance should be considered exceptional, and dealt with accordingly. And the object of the regulation was officially stated to be "to make them keep their own reserve and not to be dependent on the Bank of England." As might be supposed, this rule was exceedingly unpopular with the brokers, and the greatest of them, Overend, Gurney and Co, resolved on a strange policy in the hope of abolishing it. They thought they could frighten the Bank of England and could show that if they were dependent on it, it was also dependent on them. They accordingly accumulated a large deposit at the Bank to the amount of 000,000, and then withdrew it all at once. But this policy had no effect, except that of exciting a distrust of "Overends": the credit of the Bank of England was not diminished; Overends had to return the money in a few days, and had the dissatisfaction of feeling that they had in vain attempted to assail the solid basis of every one's credit, and that everyone disliked them for doing so. But though this ill-conceived attempt failed as it deserved, the rule itself could not be maintained. The Bank does, in fact, at every period of pressure advance to the bill-brokers; the case may be considered "exceptional," but the advance is always made if the security offered is really good. However much the Bank may dislike to aid their rivals, yet they must aid them; at a crisis they feel that they would only be aggravating incipient demand, and be augmenting the probable pressure on themselves if they refused to do so.

The fourth example covers the relationship between the Banque de France and potential bank competitors in the mid-nineteenth century, as reported by Cameron (1967, chapter IV, "France, 1800 _1870"). The Bank of France, apparently, used its influence to restrict competition from chartered banks. Thus "the Conseil d'Etat was loath to grant charters to banks because of the influence of the Bank of France" (p. 112; also see pp. 124—126). Moreover, when the Credit Mobilier, having been in operation since 1852, "in 1867, after it became involved in unsuccessful real estate speculation, its enemies in the Bank of France took advantage of its embarrassment to force it into liquidation." Also see Kindleberger (1984, pp. 279—

280).

The fifth example comes from the events of the 1907 crisis in New York, reported by Goodhart (1969, pp. 118—119):

However, the President of the Knickerbocker Trust Company, the third largest trust company in New York, with deposits of over $62 million, was also supposed to have certain (vague) business connections with Morse. On October 21 the National Bank of Commerce refused to clear for the Knickerbocker, an action which under the circumstances could only result in a run on it. This action by the National Bank of Commerce is hard to explain. As far as can be ascertained, the Knickerbocker had neither asked for help nor really needed it, although it had suffered a succession of unfavorable clearing balances. Indeed, the Knickerbocker later easily (1) paid all its debts well in advance of the time set, (2) managed to have a large surplus left over, and (3) reorganised and began business again. [19] One suggestion is that this move was a part of the internecine fight then being waged in New York between national banks and trust companies. [20] It is possible that the National Bank of Commerce may have merely seized a convenient pretext to eliminate a rival, or rather a set of rivals; for the run on the Knickerbocker immediately turned into a stampede of depositors onto all the trust companies and eventually back onto the national banks themselves.

This was not, in fact, the last such extraordinary occurrence during the panic in New York. The clearinghouse committee forced four banks (related in one way or another to Morse), the Oriental, the Mechanics and Traders, the National Bank of North America, and the New Amsterdam National Bank, to suspend at the end of January 1908, although some of them could certainly have been saved, (see Money Trust Investigation, testimony of R. W. Jones, W. Sherer, W. Frew, and A. Barton Hepburn, especially).

A sixth example may be the refusal of trading New York banks to rescue the Bank of the United States in 1930—see Hirsch (1977,

p. 247, footnote 10, and p. 250, footnote 12) and Friedman and Schwartz (1963, pp. 308—311).

In some large part, therefore, because of such conflicts of interest, so long as the quasi-Central Banking function is carried out by a bank, or banks, which sees itself, and/or is seen by its fellow commercial banks, as a competitor, then that function will only, and can only, be carried out to a limited extent. Distrust will limit the centralization and economies in reserve holding.

The provision of (lender of last resort) assistance at times of crisis will be made more uncertain and more difficult, particularly if it has to be arranged by a committee of major commercial banks with diverse interests. General control over the rate of expansion of credit will be made more problematic, if the major banks themselves have a separate individual concern for market share and profit maximization. A good example of this is to be found in the attempts of the independent Swiss banks to establish a uniform minimum discount rate in 1894, and again in 1898. In each case the refusal of some banks to join the agreement and its nonbinding character soon led to the "minimum" being undercut. A further example is provided by the Italian experience in 1885—1893, when commercial rivalries between the main banks of issue in the consortium of note issuing banks helped to fuel a ruinous, speculative expansion—see the appendix for details.

Despite the manifold problems of agreeing on common action, and how to share the (potential) costs of such support actions, historical experience suggests that groupings of major commercial banks—even in the absence of leadership from a Central Bank— can still on occasion mount partial support and relief operations during crises. Thus Timberlake (1984, pp. 13—14) wrote that a solution to banking instability was that "the banking industry simply reinstituted itself as an ad hoc central bank, and through its clearinghouse associations issued more currency." A more recent example that illustrates both the difficulties and the possibilities of collective commercial bank action is provided by the continuing debt crisis among some less developed countries (LDCs). Once again groupings of commercial banks, organized and guided by certain lead banks, have sought to develop a collective response. That collective response, in turn, has depended on guidance and leadership from the IMF in particular, but also from the Central Banks in the countries of those banks.

At times of financial crisis, the main commercial bank(s) will, on the one hand, desire to support their fellow banks, especially their own correspondents, not only because of a natural concern for their clients, but also because of a (possible) appreciation of the likelihood of contagion, whereby failures in one part of the system weaken the whole; on the other hand, the usual instinct of a commercial banker at a time of stress is to become more cautious, and less inclined to extend credit. Whether commercial banks, acting collusively, but without guidance from a Central Bank, could perform quasi-Central Bank functions depends on their number, the nature of the relationships between them, and the accidents of personality and leadership. It did happen on occasion: the history of the role of the New York clearinghouse banks in the various crises of the late nineteenth and early twentieth centuries is well retold by Timberlake (1984).

Nevertheless, and for obvious reasons, such quasi-Central Bank support operations are likely to be less effective, if done without the leadership and guidance of a noncompetitive Central Bank. Timberlake (1978, p. 190), reporting the arguments of Congressman Vreeland in favor of a Central

Banking institution in the United States in a speech to Congress in 1911, writes,

The present banking system, he thought, was analogous to a faulty railroad that would cease operations once every ten years. The dispersion of reserves in the present system, he argued, was an invitation to disaster. Five or six of the larger New York banks currently acted as a central bank, but their commercial nature—their profit motivation in particular — meant that they could not "afford to carry great reserves of from 40 to 60 percent when business is good, in order to release them when business is bad. We must have an institution to hold our reserves which is not a money-making institution. The idea of profit must be eliminated from its management."

Timberlake himself is largely silent on the possibility of, and the problems raised by, conflicts of interest between commercial competitors in his 1984 article. Timberlake would argue—I think, on the basis of private correspondence—that such conflicts would be less in the case of clearinghouse associations because these were trade associations and that their role was not to prevent individual banks from failing, but to prevent the contagion of panic from developing. In my own view, a trade association of commercial competitors retains considerable scope for conflicts of interest.

Relationships between keen competitors are always subject to pressure, and the diversity of interest among the competing banks is liable to limit support to its lowest common denominator. It is the leadership, rather than the direct financial assistance, provided by the Central Bank that has proved crucial in most actual cases of arranging such support operations. Like the IMF in dealing with the LDC debt crisis, in most serious cases of fragilty in the domestic banking system, the Central Bank does not have sufficient resources itself to be able to deal with the crisis out of its own funds. Although the Central Bank will need to put some of its own funds "up front," to encourage the others and as a seal of approval for the exercise, the bulk of the funds will generally come from the (Central Bank inspired) collusive action among the other leading banks. This was how the Baring crisis of 1890 and the fringe banking crisis in 1973—1974, with the lifeboat, were handled, as was also the Continental Illinois crisis in 1984.

The crucial feature necessary to allow a Central Bank to carry out, in full, its various functions, e.g., of maintaining financial discipline, providing support at times of crisis, is that it should become above the competitive battle, a noncompetitive, non-profit-maximizing body. [21] This was not generally recognized at the outset. In the first half of the nineteenth century, the key feature of a Central Bank was seen to reside in its relationship with government and its privileged position as (monopolistic) note issuer: but in its banking function, it was often widely considered that it was, and should act as, just one competitive bank among many. This concept of a Central Bank's role was codified in the 1844 Bank of England Act.

But this was, as argued above, an incorrect, indeed faulty, concept, and, I would argue, true Central Banking did not develop until the need for the Central Banks to be noncompetitive had become realized and established. This metamorphosis occurred slowly and by trial, error, and debate in England in the last half of the nineteenth century, in some large part following the prompting of Bagehot. It was a difficult transition for two main reasons. First, it is not easy for an erstwhile profit-maximizing institution to turn itself voluntarily into a non-profit-maximizing body: existing investors (widows and children) may suffer in the process. Second, the assumption of responsibility for the health of the banking system that goes along with the move from competition to noncompetitive leadership was seen, notably by several Bank of England governors and directors, particularly by Hankey in his debate on the matter with Bagehot, as liable to produce moral hazard by weakening the self-reliance of the banks.

Bagehot's Lombard Street (1873) in chapter VIII records Hankey as stating, "The 'Economist' newspaper has put forth what in my opinion is the most mischievous doctrine ever broached in the monetary or banking world in this country; viz that it is the proper function of the Bank of England to keep money available at all times to supply the demands of bankers who have rendered their own assets unavailable. Until such a doctrine is repudiated by the banking interest, the difficulty of pursuing any sound principle of banking in London will be always very great." Until recently, Bagehot seemed clearly to have had the better of the argument with Hankey. Now that there is more criticism of official intervention and supervision in financial markets, and an understanding that Central Bank support operations make such supervision necessary, owing to such moral hazard problems, there is a greater appreciation of Hankey's argument. [22]

An account of how other European Central Banks developed in these respects is provided in the appendix.