Aspects of the International Banking Safety Net

By G. G. Johnson, with Richard K. Abrams

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Exchange and Trade Relations Department
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The following symbols have been used throughout this paper:

... to indicate that data are not available;
— to indicate that the figure is zero or less than half the final digit shown, or that the item does not exist;
— between years or months (e.g., 1979-81 or January-June) to indicate the years or months covered, including the beginning and ending years or months;
/ between years (e.g., 1980/81) to indicate a crop or fiscal (financial) year.

"Billion" means a thousand million.

Minor discrepancies between constituent figures and totals are due to rounding.
Prefatory Note

This study was prepared in the Exchange and Trade Relations Department of the International Monetary Fund under the general supervision of Richard C. Williams, Assistant Director in charge of the International Capital Markets Division. Richard K. Abrams played a major role in assembling background material for the paper and was responsible for preparing the two appendices. Can Demir provided research assistance. Helpful comments were received from a number of colleagues in the Fund. The authors also benefited from background discussions with commercial bankers and bank supervisory authorities in a number of countries in the course of their work in the Fund on international capital markets. The views expressed in this paper, however, are solely those of the authors and do not necessarily represent the views of the Fund.
I Introduction

During the 1970s, international lending by banks came to play a dominant role in the flow of international finance. In the early 1980s, banks have continued to play a major role, but the recent evidence of strains in international banking has raised questions about the prospects for continuity of international intermediation by banks.

This paper focuses on one aspect of banks' willingness and ability to continue international intermediation. Banking history up to the 1930s was replete with crises that entailed a disruption of banking activity, drastically altering the volume, direction, and terms of the flow of funds within and among national economies. Could such a disruption occur today? The paper provides a qualitative assessment of the strengths and weaknesses of the existing safeguards for the continuity of international intermediation by banks. As background to that discussion, it also presents, in general terms, some conceivable origins of banking problems and some of the possible consequences of such problems for the international economy.

Safety Nets in Domestic Banking

The history of the development of market economies has been characterized by a growing dependence on financial intermediaries to provide the money and credit that facilitate economic activity, so that the consequences of a collapse of financial institutions have become progressively more serious. The Great Depression of the 1930s could almost be defined in terms of financial collapse. In the United States, for example, the stock of money contracted by more than one third between August 1929 and March 1933. In the same period, more than one fifth of the commercial banks in the United States suspended operations. Others were merged or voluntarily liquidated, so that the number of commercial banks in operation declined by a third (Friedman and Schwartz, 1963). Although authorities in most European countries intervened more actively to shore up their banking systems, major bank failures or payments moratoriums were common. Withdrawals of bank loans and deposits played a major role in the balance of payments crises of the period, particularly in Central and Eastern Europe.

Since the crisis of the 1930s, the financial authorities of most countries have changed their policies in order to avoid a recurrence. While economic fluctuations and failures of individual institutions have inevitably continued, the fact that these have not resulted in generalized financial panic bears witness to the success of banking "safety nets."

The purpose of such safety nets is to keep financial systems functioning in the face of economic shocks. They can be thought of as consisting of a series of defenses: (1) prudential measures to protect bank solvency; (2) prudential measures to protect bank liquidity; (3) official assurances (such as deposit insurance) to depositors that their deposits are safe, even with troubled institutions; (4) orderly resolution of the problems of failing banks; and (5) in the last resort, official provision of liquidity to permit solvent institutions to keep functioning in the face of a loss of depositor confidence. In setting up these defenses, however, financial authorities face the problem of "moral hazard." That is, any measure that reduces the extent to which the market penalizes imprudent behavior (or rewards prudent behavior) may well encourage institutions to behave imprudently. For example, full insurance for all liabilities of financial institutions, adequately funded, would guard against system-wide drains of liquidity resulting from a loss of depositor confidence but, at the same time, would remove the market mechanism that forces individual institutions to act so as to preserve that confidence. The multiple layers of partial protection that make up each country's safety net and the diversity of safety nets from country to country reflect, to a large extent, attempts to

1. Other factors affecting international bank intermediation have been discussed in Williams and others (1980), Williams, Johnson, and others (1981), and Williams, Johnson, and others (1982).

3. The term "safety net" is often used in a narrow sense to mean a system of providing financial support for troubled institutions; here, the term includes all aspects of the safeguards that enhance the stability of banking systems.
4. Grubel (1971) discusses the concept of moral hazard. The expression originated with the economics of insurance, where it initially referred to the danger of fraud where insurance applied. It has since acquired the more general definition used here.
require banks to accept responsibility for their actions, while preserving the stability of the system.

With effective safety nets, the effects of banking problems will be limited to an increase in the price of intermediation. If banks’ capital positions look weaker, whether because they have been reduced by loan losses or because banking is perceived to be a riskier business, the need to strengthen those positions (either through retaining earnings or through tapping the capital markets) will force up the spread between deposit and lending rates. While this would raise the cost of credit to borrowers, there should be no question of credit availability, although if the other circumstances of the economy are unfavorable there might be problems of creditworthiness of otherwise bankable customers.

This last point gets back to the ultimate requirement for banking stability—that policies be carried out in such a way as to maintain a reasonable degree of economic stability. One further caveat should be noted. The degree to which any banking safety net can stretch without breaking depends on the flexibility of bank supervisors and monetary authorities. If there were limits on the amount of liquidity that a central bank could supply, for example, or if banks were forced to adhere to strict quantitative standards for bank capital in the face of large loan losses, the ability of the banking system to continue intermediating could be seriously impaired.

Scope of the Study

Following this introductory section, Section II reviews some recent events in international banking as background to the discussion of the issues covered in the paper. Section III then presents some of the dimensions of the world’s dependence on financial intermediation by international banks, with particular emphasis on the flow of capital to the non-oil developing countries. It also notes the extent to which the external accounts of industrial countries could be affected by problems in their international banking sectors. These problems could be the result of spillovers from difficulties in domestic banking or of particular features of international banking itself. Section IV briefly looks at possible sources of instability and at ways in which initial problems could escalate.

The remainder of the paper examines the safeguards built into the present international banking system and points out the gaps that remain. Section V focuses on prudential standards for the protection of bank solvency.

A fundamental prudential standard involves a bank’s maintaining sufficient capital in relation to its assets to permit the bank to absorb significant losses. Standards are also established to limit particular sorts of risk. In the international area, the standards that have received the most attention relate to the management of foreign exchange exposure, concentration of country exposure, and maturity transformation. The section concludes with a review of the development of international coordination of supervisory standards, a subject that is examined in greater detail in Appendix I.

Public fears of bank failure, whether justified or not, may lead to abrupt withdrawal of deposits from particular banks or from groups of banks. Banks attempt to protect themselves against such problems by maintaining liquid assets, by limiting the degree of mismatch between the maturities of assets and of liabilities, and by arranging lines of credit with other banks. Section VI describes precautions taken by international banks in this area.

The final line of defense against bank crises is the willingness of banking authorities to provide support for banks. The support provided by deposit insurance is less significant in international banking than in domestic systems. With international banks, moreover, special problems are posed for banking authorities in their role of ensuring an orderly resolution of the affairs of failing banks, and for some banks the locus of lender of last resort responsibility is not clearly defined. Questions may also be raised about the ability and willingness of lenders of last resort to provide general liquidity to their banking systems to meet their international obligations. Section VII discusses policies of lenders of last resort with respect to international banks. Appendix II provides a brief systematic review of the role of national lenders of last resort in international banking.

In the event of a major disruption of the international banking system, there could be a need for special international financial arrangements to help countries deal with the consequences of the disruption for the capital accounts of their payments balances. Assistance might be needed both by countries that were dependent on borrowing from banks and by countries whose banking systems were under pressure. Besides temporary financial assistance to deal with the immediate consequences of the disruption, there might also be a need for new channels for longer-term international capital flows if banks’ withdrawal from international banking turned out to be substantial and sustained. Questions about the nature of such financial assistance are beyond the scope of this paper.
II Recent Developments

The year 1982 was one of turmoil in financial markets. Banking problems, as measured, say, by the tiering of interest rates, were not as severe as in 1974–75, but it is nonetheless likely that substantial changes may ensue in the operation of the international banking system. This section presents a preliminary assessment of the significance of these events.

The major events of 1982 included two that had special implication for banks’ attitudes toward international lending. The conflict between Argentina and the United Kingdom included mutual imposition of financial sanctions—thus involving both the fourth largest bank debtor among the developing countries and the most important center for international banking. Mexico’s debt service crisis marked the first time a very large bank debtor—in this case, the largest among the developing countries—had encountered such difficulties; late in the year other major borrowers also encountered difficulties in servicing their debt. Two significant bank failures occurred—Penn Square National Bank in the United States and Banco Ambrosiano in Italy—the second of which involved complex international dealings, and both of which left some depositors uncertain about the extent to which they would be repaid. These developments occurred against a background of rising domestic loan losses and financial difficulties of major corporations in a number of countries that threatened banks with further losses.

Country Risk and Sovereign Lending

Until 1982 no very large borrower had encountered external debt servicing difficulties; even Poland had accounted for less than 4 per cent of bank loans outside the industrial countries. A growing number of relatively small borrowers had sought debt reschedulings, but they represented a very small proportion of banks’ international assets. Mexico’s debt service problems, however, involved a borrower that alone accounted for 13 per cent of bank loans outside the industrial countries. Despite the magnitude of Mexico’s debt to banks—perhaps not far short of bank capital for some large banks—expressions of concern about the effects on bank solvency have been muted. Presumably, this reflects continuing recognition that, while banks might not always emerge unscathed from country debt crises (although this has been the case up to now), the actual loss on account of any country is likely to be small relative to the total exposure to the country.

Confidence of Depositors

The confidence of large U.S. depositors was shaken by the failure of Penn Square National Bank, which was the first failure of a sizable U.S. bank in 50 years without immediate pay-off of depositors by the Federal Deposit Insurance Corporation. As a result, some banks suffered withdrawals, and some large depositors diversified their deposits to increase their effective insurance coverage, limited as it is to $100,000 per depositor at any individual bank. Rising loan losses led to doubts about even some major banks, which found themselves forced to pay more than the best market rates on their obligations. Beyond such tiering among financial institutions, there was also a movement from bank certificates of deposit into government obligations that led to increasing differentials between interest rates on certificates of deposit and those on treasury bills.5

More significant for international depositors was the failure of Banco Ambrosiano. While the Italian authorities and Italian commercial banks quickly took action to provide full backing for payment for depositors of the parent bank in Italy, including international depositors, no such backing applied to Banco Ambrosiano Holding in Luxembourg, with the result that its major bank creditors quickly declared default. Eventual recovery of most of the creditors’ funds seemed likely, but they faced, at the very least, protracted delays in recovery. Some tiering of Euromarket interest rates occurred, with some banks paying up to ½ per cent more than the lowest market rate for funds. Such tiering was much more modest than in 1974–75, when it approached 2 per cent for some banks, but it nonetheless indicated a

5 A major factor in such shifts in the United States appears to have been the deposit concentration associated with the growth of money market funds. Small deposits had shifted from banks, where deposit insurance would have limited the incentive to withdraw, to money market funds. The large-scale redemptions of such funds were only partly covered by insurance and, hence, were subject to withdrawal from banks whose situation appeared at all doubtful.
more discriminating attitude on the part of other banks and nonbank depositors.

Interbank Relationships

Besides questions relating to interbank deposits, other aspects of interbank relationships have also come under scrutiny as a result of recent problems. On the one hand, the financial sanctions mutually imposed by Argentina and the United Kingdom do not seem to have led to interbank problems, in contrast to what occurred during the United States-Iran dispute in 1980.

It has sometimes been suggested that one area of vulnerability in international banking is that smaller banks often do not adequately analyze loans they participate in, but simply act on the advice of the large banks. A surprising aspect of the Penn Square National Bank’s failure was the extent to which the transmission mechanism worked the other way in domestic loans, with some very large banks apparently taking on loans arranged by Penn Square with a minimum of independent evaluation.

Regulatory Adaptations

As with the near crisis of 1974-75, the current surge in problems can be expected to bring about changes in bank regulation and supervision. Among domestic banking systems, a major strengthening of supervisory powers is under way in Italy, and Italian-owned holding companies abroad have been subjected to stronger reporting requirements. In the United States, since September 30, 1982 national banks have been required to file quarterly reports listing poor-performing loans, which previously were identified only in the context of bank examinations, and bank positions are to be subject to greater public disclosure. There is also a movement toward more conservative treatment of poor-performing sovereign loans, with banks increasingly making provisions against potential losses on such loans. In Canada, the large exposures of Canadian banks to individual corporations have led the Inspector-General of Banks to advise banks to limit such exposures to 50 per cent of capital, and a Parliamentary Inquiry has called for stringent legal lending limits. In the Federal Republic of Germany, the Deutsche Bundesbank has requested a number of banking institutions to give it notice of credits to foreign borrowers totaling DM 50 million or more.

Internationally, the problems of Banco Ambrosiano Holding raised questions about the sharing of responsibilities among lenders of last resort. Many of the calls on the Italian authorities to stand behind the subsidiary seem to reflect a belief that no depositor should be hurt by such a failure, a responsibility that presumably no lender of last resort would consider it appropriate to accept. Short of that, however, is the question of who has the responsibility to ensure an orderly and equitable resolution of the problems of failing banks. The authorities of Luxembourg and the United Kingdom, both of which have large numbers of subsidiaries of foreign banks within their jurisdictions, have made it clear that they regard the foreign parents as having full responsibility to support their subsidiaries. This could be taken to imply that the parent authorities have the responsibility of lender of last resort. The Italian authorities fully protected depositors with the parent bank. Along with some other parent authorities, however, they felt limited responsibility for foreign subsidiaries whose activities they were unable to supervise.

The problems of Banco Ambrosiano Holding also pointed up gaps in bank supervision. Since it was a bank holding company and not a bank, under Luxembourg law the Luxembourg authorities did not have supervisory powers. Italy is now putting new controls on foreign subsidiaries of Italian banks to ensure better supervision of their activities.

Conclusions

In some ways, current financial events fit the model of speculative cycles developed by Minsky (as described in Kindleberger, 1978), in this instance with banks themselves as the major players. International bank lending has grown rapidly in recent years as a result of the emergence of highly profitable, seemingly riskless opportunities, while institutional changes in many domestic markets (particularly deregulation in the United States) have also generated new modes of financial intermediation. In the past, the end of such cycles was often accompanied by the financial collapse of the principal actors, in some cases accompanied by more general crises in the economies in which they operated. Viewed in this context, the events of 1982 to a large extent demonstrated the strength of the international banking system. The enormous financial strains associated with the maintenance of high real interest rates in the face of economic recession have placed many financial institutions in serious difficulties. As in 1974-75, some banks failed, mainly as a result of fraud or incompetence, but unlike the previous period these failures have not resulted in major disruption of international banking relationships, despite the fact that the underlying economic situation has been graver than it was then.

It is likely that in the short run there will be some negative impact on banks’ attitudes to international lending—particularly among smaller banks that may
have less of a long-term commitment to their international customers. Over the medium term, the system should be strengthened by recent events. While some financial institutions, both those operating in domestic markets and those operating internationally, have been adversely and perhaps inappropriately affected by these events, a more discriminating approach by depositors should, in general, be salutary. The moral hazard pendulum had perhaps swung too far, with depositors—including interbank depositors—thinking they had no risk of loss and thus facilitating incompetent or fraudulent behavior in some institutions. A more cautious attitude on the part of depositors will make it more difficult for institutions with less than solid credentials to expand rapidly in risky or questionable areas of activity. While this may mean slower growth of bank credit, the credit that is not generated would probably be of marginal usefulness. At the same time, bank supervision is likely to be strengthened, and there is likely to be further clarification of international understandings in that area. There is also likely to be a better delineation of the relative responsibilities of the various national authorities for the orderly resolution of the problems of failing banks. Taken together, these developments should do much to reduce the extent to which banks can evade the intent of regulation and supervision of prudential behavior by locating in centers where monitoring is lax.
III Financial Consequences of International Banking Problems

The immediate consequences of problems in international banking would be financial—the disruption of payments mechanisms and the breakdown of financial intermediation. If unchecked, these could quickly impinge on the real economy, producing declines in production, employment, and trade.

Types of Financial Consequences

While the precise impact of a crisis in international banking would depend on the origin of the problem (for possible origins, see Section IV), three general financial consequences could be envisaged: (1) disruption of the mechanisms for international payments, (2) disruption of domestic banking services supplied by banks with headquarters in other countries, and (3) disruption of international financial intermediation. The first of these problems could be resolved in a relatively straightforward fashion, provided that international transactors had confidence in at least some banks that were able to maintain international correspondent relationships. Some transactors might suffer losses or incur additional costs, however, in seeking out reliable banking connections. By the same token, any loss of domestic services provided by foreign banks could be offset by the domestic expansion of other banks, assuming that domestic banking was not seriously disrupted—though, again, additional costs might be incurred. The central problem would likely be the third: the disruption of international financial intermediation.

A banking crisis could have two major direct consequences for international capital flows: (1) international bank lending could be curtailed, and (2) funds deposited with banks in particular countries could be shifted into bank deposits or other financial instruments in other countries. The intermediation that did continue, moreover, would take place on harder terms, such as higher margins between deposit and lending rates. Unless alternate channels for capital flows could be arranged, countries affected by the change in the magnitude and terms of bank intermediation could be forced into inappropriate economic adjustment—the familiar consequence of an inappropriate contraction of global liquidity. Some of the dimensions of bank involvement in international capital flows are discussed below.

Scale of International Bank Lending

The extent to which non-oil developing countries have depended on international bank lending in recent years is shown in Table 1, with each of the 15 countries in that group that have debts to banks in excess of US$5 billion identified. For all non-oil developing

![Table 1. Dependence of Non-Oil Developing Countries on Borrowing from International Banks, 1977-81](image-url)
countries, taken together, net borrowing from banks amounted to 10 per cent of current account receipts in the years 1977–81. For the large borrowers, the amounts were very large indeed, in some cases as high as 40 per cent of total current account receipts over the period. Bank financing was equivalent to about half the aggregate current account deficit of non-oil developing countries during the period (and substantially more than half for some borrowers).

As Table 2 indicates, the total obligations of non-oil developing countries to banks at the end of 1981 ranged up to twice their current account receipts and up to 15 times their official international reserves. Much of their borrowing has short maturities, moreover, so that the repayment of bank debt scheduled for any particular year is large. For some countries, over half their bank debt at the end of 1981 had a residual maturity of less than one year.

Some industrial countries have also relied heavily on loans from international banks for balance of payments financing in recent years, and would face difficulties if the flow of such finance were interrupted. Most industrial countries have traditionally been net capital exporters, however, with much of their capital exports channeled through banks. An interruption of international lending by banks would not in itself put the capital accounts of most industrial countries under serious pressure; in fact, capital outflows would be likely to decline.

### Scale of International Bank Deposits

The problems for the capital accounts of industrial countries would mainly arise because, while their banks may have large external assets, they also have large external liabilities, most of which are of short maturity. A banking crisis implies—indeed, may be defined in terms of—attempts by depositors to withdraw their funds. If funds successfully withdrawn were placed in other financial instruments within the same country, by definition there would be no associated capital outflow. Depositors might find attractive alternative instruments in few countries, however. Moreover, doubts about banks would probably be focused more on some countries' banks than others, so that depositors might wish to shift their deposits to the banks of other countries.

Table 3 shows the external liabilities of the banks of countries included in the BIS reporting system. For most of the countries, the liabilities of banks located within

### Table 2. International Bank Claims on Non-Oil Developing Countries at the End of 1981

(Amounts in billions of U.S. dollars; ratios in per cent)

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Claims</th>
<th>Current account receipts in 1981</th>
<th>Official international reserves</th>
<th>Claims Due Within One Year</th>
<th>Share of total claims</th>
<th>Current account receipts in 1981</th>
<th>Official international reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>24.8</td>
<td>2.11</td>
<td>7.19</td>
<td>11.6</td>
<td>0.47</td>
<td>0.99</td>
<td>3.36</td>
</tr>
<tr>
<td>Brazil</td>
<td>52.7</td>
<td>1.94</td>
<td>7.88</td>
<td>18.3</td>
<td>0.35</td>
<td>0.68</td>
<td>2.74</td>
</tr>
<tr>
<td>Chile</td>
<td>10.5</td>
<td>1.98</td>
<td>3.20</td>
<td>4.2</td>
<td>0.40</td>
<td>0.79</td>
<td>1.28</td>
</tr>
<tr>
<td>Colombia</td>
<td>5.4</td>
<td>1.10</td>
<td>1.11</td>
<td>2.7</td>
<td>0.50</td>
<td>0.55</td>
<td>0.55</td>
</tr>
<tr>
<td>Greece</td>
<td>9.8</td>
<td>0.95</td>
<td>8.31</td>
<td>3.6</td>
<td>0.37</td>
<td>0.35</td>
<td>3.05</td>
</tr>
<tr>
<td>Hungary</td>
<td>7.7</td>
<td>0.74</td>
<td>4.90</td>
<td>3.1</td>
<td>0.40</td>
<td>0.30</td>
<td>1.97</td>
</tr>
<tr>
<td>Israel</td>
<td>6.0</td>
<td>0.50</td>
<td>1.69</td>
<td>4.3</td>
<td>0.72</td>
<td>0.36</td>
<td>1.21</td>
</tr>
<tr>
<td>Korea</td>
<td>19.9</td>
<td>0.71</td>
<td>7.40</td>
<td>11.5</td>
<td>0.58</td>
<td>0.41</td>
<td>4.28</td>
</tr>
<tr>
<td>Mexico</td>
<td>56.9</td>
<td>1.88</td>
<td>13.65</td>
<td>27.7</td>
<td>0.49</td>
<td>0.92</td>
<td>6.64</td>
</tr>
<tr>
<td>Philippines</td>
<td>10.2</td>
<td>1.19</td>
<td>14.49</td>
<td>5.8</td>
<td>0.57</td>
<td>0.67</td>
<td>2.56</td>
</tr>
<tr>
<td>Portugal</td>
<td>7.5</td>
<td>0.85</td>
<td>5.17</td>
<td>2.8</td>
<td>0.37</td>
<td>0.32</td>
<td>1.93</td>
</tr>
<tr>
<td>Romania</td>
<td>5.1</td>
<td>0.38</td>
<td>9.27</td>
<td>1.8</td>
<td>0.35</td>
<td>0.13</td>
<td>3.27</td>
</tr>
<tr>
<td>South Africa</td>
<td>11.2</td>
<td>0.47</td>
<td>10.77</td>
<td>6.0</td>
<td>0.54</td>
<td>0.25</td>
<td>5.77</td>
</tr>
<tr>
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<td>5.1</td>
<td>0.55</td>
<td>2.79</td>
<td>3.1</td>
<td>0.61</td>
<td>0.33</td>
<td>1.69</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>10.7</td>
<td>0.56</td>
<td>6.41</td>
<td>3.0</td>
<td>0.28</td>
<td>0.16</td>
<td>1.80</td>
</tr>
</tbody>
</table>

| All non-oil developing countries | 313.8 | 0.67 | 3.56 | 140.1 | 0.45 | 0.30 | 1.59 |

Sources: BIS, The Maturity Distribution of International Bank Lending; IMF, International Financial Statistics; and Fund staff estimates.

1. Countries listed had debts to BIS reporting banks in excess of US$5 billion at the end of 1981.

2. Excludes official transfers.
their borders at the end of 1981 were rather less than their current account receipts that year, although for Switzerland and the United Kingdom such liabilities were about three times the current account receipts. In some countries, the liabilities were not much greater than the international reserves, but for others they were as much as 28 times the reserves.

Figures such as those in Table 3 present an oversimplified picture of the potential balance of payments impact of deposit withdrawal. For financial centers with large foreign banking presences—particularly the United Kingdom and Luxembourg, among the countries listed in Table 3—branches or subsidiaries of banks with headquarters elsewhere account for a large proportion of total bank liabilities. The impact of withdrawals of deposits from those banks, particularly deposits denominated in foreign currency, would tend to be shifted to the country of the parent bank. Other aspects of interbank relationships (discussed in the next section) would also tend to spread the balance of payments impact to other countries. Another type of balance of payments impact of banking problems could come about from delays or partial losses in recovering their deposits encountered by countries that deposit part of their official reserves with international banks.

Banking problems could leave countries that have payments surpluses, and that have customarily deposited their funds with banks, with less attractive outlets for such funds. Just as an interruption in bank lending could lead to pressures for inappropriately strong adjustment (or restrictions) by borrowing countries, a lack of desirable banks in which to deposit funds could put exaggerated pressures on countries in surplus to adjust in the opposite direction, particularly when the domestic consequences of such adjustment would be small. Oil exporting countries, which placed about 40 per cent of their 1974–80 cash surplus in bank deposits, are an obvious example.

### Table 3. Foreign Liabilities of Deposit Banks at the End of 1981
(Amounts in billions of U.S. dollars; ratios in per cent)

<table>
<thead>
<tr>
<th>Country</th>
<th>Amount</th>
<th>Current account receipts 1981</th>
<th>Ratio to Official international reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>25.5</td>
<td>0.95</td>
<td>4.16</td>
</tr>
<tr>
<td>Belgium</td>
<td>83.1</td>
<td>0.93</td>
<td>13.11</td>
</tr>
<tr>
<td>Canada</td>
<td>59.8</td>
<td>0.72</td>
<td>13.69</td>
</tr>
<tr>
<td>Denmark</td>
<td>5.3</td>
<td>0.23</td>
<td>2.02</td>
</tr>
<tr>
<td>France</td>
<td>135.6</td>
<td>0.86</td>
<td>5.30</td>
</tr>
<tr>
<td>Germany, Fed. Rep. of</td>
<td>66.8</td>
<td>0.31</td>
<td>1.40</td>
</tr>
<tr>
<td>Ireland</td>
<td>10.4</td>
<td>1.01</td>
<td>3.93</td>
</tr>
<tr>
<td>Italy</td>
<td>51.3</td>
<td>0.50</td>
<td>2.25</td>
</tr>
<tr>
<td>Japan</td>
<td>100.4</td>
<td>0.53</td>
<td>3.44</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>106.1</td>
<td>1.20</td>
<td>16.74</td>
</tr>
<tr>
<td>Netherlands</td>
<td>65.2</td>
<td>0.72</td>
<td>5.86</td>
</tr>
<tr>
<td>Sweden</td>
<td>14.1</td>
<td>0.38</td>
<td>3.66</td>
</tr>
<tr>
<td>Switzerland</td>
<td>135.0</td>
<td>3.33</td>
<td>7.77</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>441.1</td>
<td>2.79</td>
<td>27.55</td>
</tr>
<tr>
<td>United States</td>
<td>182.1</td>
<td>0.49</td>
<td>6.13</td>
</tr>
</tbody>
</table>


1Banks located in industrial countries that are included in the BIS reporting area.

2Excludes official transfers.

3As figures on current account receipts and international reserves are not available separately for Belgium and Luxembourg, the ratios use combined figures for the denominators.

The safeguards described in this paper make it difficult to conceive of a crisis of such proportions that the direct effects on any country's capital account would approach the outer limits suggested by Tables 1, 2, and 3. Aside from the banking safeguards, moreover, capital flows are symmetric, with downward pressure on some countries' payments balances implying upward pressure on those of others. What would be needed would be to find alternative channels for capital flows to make up for the diminution of the banking channel.

The problem of capital flight from countries whose banks are under pressure would perhaps be the easiest consequence to deal with, because it would be similar to the problems of capital flight that industrial countries have experienced in the past. In this case, the fact that the problem would originate with doubts about a country's banks, not about its overall economic situation, would facilitate its resolution. A country thus could offer depositors, particularly official depositors, special alternative instruments to mitigate the effect on the balance of payments. Beyond that, the usual mechanisms for mutual financial support of industrial countries would come into play.

The fundamental problem of making up for the loss of banking intermediary services could still remain. The cost to depositors would be measured in terms of the difference in the return on their international assets as they switched from bank deposits to alternative instruments—costs which could include the loss of liquidity, flexibility, confidentiality, and desirable location, as well as lower rates of interest. Borrowers who were considered creditworthy might have to pay more but, like depositors, would not face critical problems of availability of intermediary services. The cost of the cutback by banks in such cases could be measured as the increase in the margin between the return to depositors and the charge to borrowers, adjusted for nonfinancial aspects such as convenience and confidentiality. Other borrowers might suffer a more serious loss of access to the private financial markets.
The 1974 Bank Failures

The near crisis of 1974 associated with the failures of a number of banks—among them Franklin National Bank and Bankhaus I.D. Herstatt—gives some indication of the potential costs. As a result of the withdrawal of many banks from international banking, publicized medium-term international bank credit commitments dropped abruptly in the third quarter of 1974, and the terms on remaining commitments began to harden sharply. By the middle of 1975, the average spread—the main component of the charges banks make for their intermediary services on medium-term floating rate loans—more than doubled to over 1.5 per cent, and the average maturity of loans dropped from eight years to little more than five. The fact that terms hardened so sharply, while the volume of international lending declined by 20 per cent between 1974 and 1975, indicates the extent to which the capacity and willingness of the international banking system to intermediate were strained. For a number of reasons, however, the banking crisis did not in itself greatly increase the pressures on countries to adjust, rather than finance, their current account imbalances. The coincidental recession in most of the industrial countries, together with the strength of the international bond markets (which was partly a reflection of the sharply higher cost of intermediation by banks), was associated with a sharply reduced demand for international bank credit by borrowers in such countries; as a result, banks looked for customers elsewhere, and the non-oil developing countries did not experience prolonged or significant unavailability of bank credit.

\(^8\) A brief description of financial developments during the 1974 experience can be found in Williams and others (1980), pp. 23–26.
As in all financial intermediation, risk is an inherent feature of international banking. This section describes the risks involved and discusses some of the threats these risks pose to the continuity of international bank lending.

### Country Risk

The most obvious risk in international banking is that international loans of banks might not be serviced. Beyond whatever commercial risk may be involved in individual loans, international lending is subject to (1) sovereign risk—the possibility of default or repudiation by a government with respect to its external debt—and (2) transfer risk—the possibility that private borrowers who are able to generate the necessary repayments in local currency are prevented from converting the funds. Table 4 shows the exposure of the international banking system as a whole to the largest country borrowers. Table 5 presents the consolidated exposure of the banking systems of the United States and the United Kingdom to large borrowers. Data on consolidated exposure are not available for other banking systems.

The risk of loss to banks should be measured in relation to bank capital. At the broadest level of aggregation, the total capital of banks in the BIS reporting area at the end of 1981 was on the order of US$335 billion.\(^9\) The collective exposure of BIS reporting banks to each of the two largest borrowers among the developing countries thus exceeded 15 per cent of bank capital.\(^9\) The important consideration for

<table>
<thead>
<tr>
<th>Industrial countries outside BIS reporting area</th>
<th>Amount</th>
<th>Percentage of Bank Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>9.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Finland</td>
<td>7.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Norway</td>
<td>10.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Spain</td>
<td>23.2</td>
<td>7.0</td>
</tr>
<tr>
<td>Oil exporting countries</td>
<td>67.9</td>
<td>20.4</td>
</tr>
<tr>
<td>Algeria</td>
<td>8.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Indonesia</td>
<td>7.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Kuwait</td>
<td>5.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Nigeria</td>
<td>6.0</td>
<td>1.8</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>5.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Venezuela</td>
<td>26.2</td>
<td>7.9</td>
</tr>
<tr>
<td>Non-oil developing countries</td>
<td>313.9</td>
<td>94.2</td>
</tr>
<tr>
<td>Argentina</td>
<td>24.8</td>
<td>7.5</td>
</tr>
<tr>
<td>Brazil</td>
<td>52.7</td>
<td>15.8</td>
</tr>
<tr>
<td>Chile</td>
<td>10.5</td>
<td>3.2</td>
</tr>
<tr>
<td>Colombia</td>
<td>5.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Greece</td>
<td>9.8</td>
<td>2.9</td>
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<tr>
<td>Hungary</td>
<td>7.7</td>
<td>2.3</td>
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<td>Israel</td>
<td>6.0</td>
<td>1.8</td>
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<td>Korea</td>
<td>19.9</td>
<td>6.0</td>
</tr>
<tr>
<td>Mexico</td>
<td>56.9</td>
<td>17.1</td>
</tr>
<tr>
<td>Philippines</td>
<td>10.2</td>
<td>3.1</td>
</tr>
<tr>
<td>Portugal</td>
<td>7.5</td>
<td>2.3</td>
</tr>
<tr>
<td>Romania</td>
<td>5.1</td>
<td>1.5</td>
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<tr>
<td>South Africa</td>
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<tr>
<td>Thailand</td>
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<td>1.5</td>
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<td>Yugoslavia</td>
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</tr>
<tr>
<td>Offshore banking centers</td>
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<td>72.3</td>
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</tr>
<tr>
<td>Bahrain</td>
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</tr>
<tr>
<td>Cayman Islands</td>
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<tr>
<td>Hong Kong</td>
<td>31.3</td>
<td>9.4</td>
</tr>
<tr>
<td>Liberia</td>
<td>6.9</td>
<td>2.1</td>
</tr>
<tr>
<td>Netherlands Antilles</td>
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<td>2.1</td>
</tr>
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<td>Panama</td>
<td>26.9</td>
<td>8.1</td>
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<td>German Democratic Republic</td>
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<td>3.2</td>
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<td>15.3</td>
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</tr>
<tr>
<td>U.S.S.R.</td>
<td>16.3</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Sources: BIS, The Maturity Distribution of International Bank Lending; and Fund staff estimates.

1Aggregate claims of BIS reporting banks on countries outside the BIS reporting area. All countries for which total bank claims exceed US$5 billion are listed separately.

2Capital of banks in the BIS reporting area at the end of 1981 was on the general order of US$335 billion.

3Excludes countries designated by the BIS as "offshore banking centers."

4Excludes Fund member countries.
### Table 5. Consolidated Country Exposures of U.S. and U.K. Registered Banks at the End of 1981

(In billions of U.S. dollars and per cent)

<table>
<thead>
<tr>
<th>BIS reporting area</th>
<th>Amount</th>
<th>Percentage of bank capital</th>
<th>Claims of U.K. Banks</th>
<th>Amount</th>
<th>Percentage of bank capital</th>
</tr>
</thead>
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<td>3.2</td>
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</tr>
<tr>
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<td>12.0</td>
<td>6.6</td>
<td>18.3</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
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<td>4.8</td>
<td>13.2</td>
<td></td>
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<tr>
<td>Denmark</td>
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<td>4.7</td>
<td>2.7</td>
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</tr>
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<td>France</td>
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<td>29.0</td>
<td>13.7</td>
<td>37.7</td>
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</tr>
<tr>
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<td>13.3</td>
<td>20.9</td>
<td>7.8</td>
<td>21.4</td>
<td></td>
</tr>
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<td>1.5</td>
<td>4.0</td>
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</tr>
<tr>
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<td>5.1</td>
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<td>4.1</td>
<td>11.3</td>
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<td>1.1</td>
<td>2.9</td>
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</tr>
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<td>1.2</td>
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<td>1.3</td>
<td>3.7</td>
<td></td>
</tr>
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<td>15.9</td>
<td>3.1</td>
<td>8.6</td>
<td></td>
</tr>
<tr>
<td>Non-oil developing countries</td>
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<td>49.8</td>
<td>137.6</td>
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<td>13.3</td>
<td>3.5</td>
<td>9.5</td>
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<td>28.5</td>
<td>6.5</td>
<td>18.0</td>
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<td>9.0</td>
<td>1.5</td>
<td>4.2</td>
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</tr>
<tr>
<td>Colombia</td>
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<td>4.8</td>
<td>0.6</td>
<td>1.7</td>
<td></td>
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<td>Greece</td>
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<td>1.3</td>
<td>3.7</td>
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<td>Hungary</td>
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<td>1.7</td>
<td>0.8</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Israel</td>
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<td>3.9</td>
<td>0.6</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Korea</td>
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<td>14.1</td>
<td>2.5</td>
<td>7.0</td>
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<td>Mexico</td>
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<td>34.2</td>
<td>7.8</td>
<td>21.4</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
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<td>7.9</td>
<td>1.2</td>
<td>3.4</td>
<td></td>
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<tr>
<td>Portugal</td>
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<td>2.8</td>
<td>1.2</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Romania</td>
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<td>0.5</td>
<td>0.6</td>
<td>1.7</td>
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</tr>
<tr>
<td>South Africa</td>
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<td>4.2</td>
<td>2.5</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>1.8</td>
<td>2.9</td>
<td>0.6</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>2.6</td>
<td>4.1</td>
<td>1.5</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>Offshore banking centers</td>
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<td>20.8</td>
<td>8.3</td>
<td>22.9</td>
<td></td>
</tr>
<tr>
<td>Centrally planned economies</td>
<td>3.3</td>
<td>5.2</td>
<td>5.3</td>
<td>14.5</td>
<td></td>
</tr>
<tr>
<td>German Democratic Republic</td>
<td>1.1</td>
<td>1.7</td>
<td>1.6</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>1.2</td>
<td>1.9</td>
<td>0.9</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>U.S.S.R.</td>
<td>0.6</td>
<td>0.9</td>
<td>1.8</td>
<td>5.0</td>
<td></td>
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<tr>
<td>International organizations</td>
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<td>1.1</td>
<td>0.7</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>and unallocated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>320.3</td>
<td>503.0</td>
<td>167.5</td>
<td>462.8</td>
<td></td>
</tr>
</tbody>
</table>


1Where risk transfers are involved, exposure is recorded as being to the country of the guarantor. U.S. data cover 159 large banking organizations. U.K. data cover British-owned banks, consortium banks, and British subsidiaries of foreign banks. In both cases, claims of foreign subsidiaries and branches are included, except for local claims in local currencies. All countries for which total bank claims exceed US$5 billion (see Table 4) are listed separately, except for offshore banking centers. For most of the latter, claims of U.S. and U.K. banks, after risk transfers, are very small.


3Excludes Fund member countries.
banking stability is the situation of individual banks, for some of which exposure concentration is considerably higher than it is at the aggregate level.

But it is important to bear in mind that country crises in the servicing of debt to banks in recent years have resulted in reschedulings of debt on market terms. Given the nature of relations between banks and sovereign debtors, any significant degree of write-off may not occur even in the most serious cases, and the danger of total write-off that would seriously threaten a bank’s solvency seems remote. In any case, it would be unlikely to occur abruptly, giving banks time to adjust to the potential loss.

Other Risks in International Banking

Losses on foreign exchange operations were a major factor in most of the bank failures of 1974–75, but such losses can be controlled through placing limits on uncovered positions in foreign exchange operations. Supervisors have tightened their guidelines in this regard, and banks now generally appear to follow prudent practices.

Another risk arises from the fact that bank assets generally have longer maturities than bank liabilities, so that losses can occur if interest rates fluctuate. When operating in foreign currencies, moreover, banks lack the modest degree of protection offered by the ability to set “prime” rates or by the influence on the decisions of monetary authorities that they may have to some extent in their domestic currencies. On the other hand, the widespread use of floating interest rates internationally keeps interest rate risk small, though losses resulting from short-run fluctuations in interest rates can significantly affect bank profitability over short periods.

It is almost a truism that “the next banking crisis” will come from an aspect of risk that has not been foreseen, because if the problem is foreseen, precautions can be taken to forestall it. There is, moreover, always the risk of fraud, a factor in the bank failures in 1974 and again in 1982. Whatever the source of difficulty, however, with conditions of reasonable global economic stability, losses are unlikely to be so widespread as to threaten many banks with insolvency.

Bank Liquidity and Contagious Effects

The failure of even a few banks could lead to more widespread disruption through contagious effects on other banks. A banking crisis is, by definition, associated with requests by depositors for withdrawal of their funds from the banks in question. In attempting to meet such requests, banks need to substitute new liabilities for those being run off or to carry out a parallel runoff of assets. The cost of doing so rises sharply with the volume of funds that the banks attempt to acquire, severely constraining their ability to make new loans and, ultimately, threatening bank solvency.

Some of the more imaginative scenarios for an international banking crisis postulate withdrawals of funds by a few large depositors as a trigger for a crisis. In such scenarios, the original withdrawals occur not because of fears about the security of deposits but for, say, political reasons. Through contagion, such actions generate the fears that lead to a crisis. Safeguards for bank liquidity seem strong enough to prevent such actions by a small number of depositors from provoking a major crisis. In the past, moreover, governments have shown a readiness to block the withdrawal of deposits when security matters were involved, and there is no reason to think that they would not do so quickly if a banking crisis threatened to occur.

More plausible, depositors might ask to withdraw their funds from certain banks because of a real or imagined danger of insolvency. In the absence of complete information about the affairs of banks in which they deposit their funds, depositors are naturally prone to become doubtful of banks in general when even a few banks are thought to be in serious trouble. Contagion is likely to be a more serious problem with respect to international than domestic deposits, because of the difficulties that some depositors have in obtaining information, the large size of individual deposits (which implies minimal coverage by any available deposit insurance), and uncertainty about the ability and willingness of national authorities to protect foreign depositors against loss in the event of a bank failure.

Interbank Relationships

A particular feature of international banking is the extent to which banks rely on funds “purchased” from holders of large balances. Even in domestic banking, many institutions have, over time, become more dependent on such wholesale funding, as opposed to their traditional retail deposit base. But in international banking, at least for operations in foreign currency, funding is almost purely a wholesale business. A relatively small number of large banks, moreover, are favored by nonbanks as outlets for their funds. The fact that most of the other banks involved rely to a large extent on funds onlent by the big banks facilitates the transmission of bank difficulties.

In a banking crisis, banks would have difficulty collecting funds due them from a failing bank, while the failing bank or its liquidators would insist on collecting funds due it from other banks. While the exposure of a bank to any other single bank is not likely to be large
Changes in Risk Perceptions

relative to bank capital (unlike the exposure that some banks may have to individual countries), its collective exposure to banks in difficulty could be substantial. As with country exposure, data on the interbank exposures of individual banks are generally not available. The scale of interbank credit by various measures is in the range of 65–75 per cent of total international bank liabilities (Ellis, 1981). Much of this credit, however, is really intrabank credit, because it represents positions vis-à-vis foreign affiliates. Individual banks, moreover, are normally active on both sides of the market—that is, whether they are net takers or placers of funds, they normally take gross positions both as takers and placers.

Besides the obvious problems posed for banks by loss of funds loaned to failing banks or by difficulties in finding new sources of funds to replace funds previously borrowed from failing banks, banks that rely heavily on other banks for net funding might face further difficulties. Banks placing funds, like other depositors, would become more wary of redepositing, except with banks they felt were in a strong position. Beyond that, however, banks might feel a need to protect themselves against runs on their own deposit base by shifting their assets out of interbank deposits and into cash or liquid government obligations. For net placers of interbank funds, such a shift would be relatively easy to carry out, but the result would be a liquidity drain for banks that were net takers. These latter banks would include most of the small banks operating in the international money market. In the near crisis of 1974, for example, the large money-center banks drastically reduced the number of other banks with which they were prepared to place funds.

The continuity of international bank lending is dependent on another interbank relationship as well. The large loans that characterize much of medium-term international bank lending are typically put together by a club or syndicate of banks. Anything that affects interbank confidence could jeopardize the syndication process. The actions of certain U.S. banks in connection with the Iranian crisis of 1980, for example, led to accusations of bad faith from other banks and may have temporarily hampered loan syndications. One response to such problems has been to include much more detailed legal specifications in loan agreements.

Changes in Risk Perceptions

The rest of this paper examines the various safeguards against disruptions of international banking—that is, the elements of an international safety net. It is important to bear in mind, however, that even if banks were not forced to withdraw from international banking through actual bank failures or official action, they could still withdraw from it because of changes in their perceptions of its riskiness. While gradual changes in risk perceptions could be accommodated by gradual shifts in lending spreads, so that the international economy would have time to adjust to a gradual shift in financing flows, a sharp change in perceptions could lead to abrupt shifts in flows that could not be accommodated by a moderate hardening of terms. In that case, many countries could find themselves losing access to international bank credit.

Changes in risk perceptions may have a regional impact. As a result of the Polish debt crisis, Hungary experienced major difficulties in obtaining bank finance, despite the general perception that its economy was basically sound. Bank behavior, moreover, often displays a destabilizing pattern. At the aggregate level, small banks generally remained rather aloof from international lending in the mid-1970s, even after the tiering associated with the 1974 bank failures had dissipated and international lending had once again become highly profitable. The subsequent rise in international lending toward the end of the decade, paralleling the rush at its beginning, suggests the presence of “bandwagon” effects.

One particular aspect of loan agreements that has sometimes been mentioned as a problem in interbank relationships is the default clause. It should be noted, however, that in syndicated loans such clauses generally become operative only if a large majority of the participating banks agree.
Prudential Safeguards for Bank Solvency

The first line of defense for the stability of banking systems is that individual banks themselves act so as to reduce the risk of failure. Financial intermediation is inherently risky; therefore, banks must limit their risks to prudent levels.

Beyond such basic requirements as the development of techniques of credit evaluation and internal controls to limit the potential damage from incompetence or fraud, prudential standards for banks include diversification of assets and liabilities to ensure that the problems of one or a few customers of a bank cannot be critical. They also include limitations on the extent to which banks carry out maturity transformation. Perhaps most important, they include maintenance of bank capital at such a level that the bank can absorb substantial losses without becoming insolvent. In each case, there is a trade-off between prudence and profitability; the task of the banks and their supervisors is to strike a reasonable balance.

Prudential standards cannot be assessed in absolute terms, except insofar as certain risky transactions are absolutely prohibited. This section provides some broad qualitative indications of the adequacy of the standards currently in force to protect solvency in the face of problems in the international operations of banks.

Bank Capital

A fundamental safeguard of bank solvency is the capital available to meet losses. While no amount of capital can assure a bank’s solvency under all circumstances, the larger the capital, the larger the loss the bank can absorb. Aside from the risk of loss, however, increasing the amount of capital in relation to assets reduces bank profitability and the efficiency of financial intermediation.

In many banking systems, there was until recently a secular trend toward lower ratios of capital to assets. In the United States, for example, the average ratio for banks insured by the Federal Deposit Insurance Corporation declined from 8.12 per cent in 1964 to 5.99 per cent in 1977, while the average ratio for French banks declined from 3.94 per cent to 2.06 per cent during the same period. To some extent, such declines may have been a natural evolution, which does not necessarily imply any change in prudential standards. Large banks have greater scope for diversifying their assets and thus may bear less risk of catastrophic loss than small ones, so that the increase in the average size of balance sheets may, in a sense, have permitted lower ratios.

The development of multinational banking itself is an example of such diversification, which leaves banks less exposed to problems in a single economy. To the extent that banks have tightened their safeguards in other areas, moreover, banks may have reduced the risks against which capital needs to be held. It has also sometimes been argued that, since the full resources of the state stand behind government-owned banks, such as most banks in France and community savings banks in the Federal Republic of Germany, explicit capital positions are incomplete measures of bank solvency for such banks. Nonetheless, the trend toward lower ratios has been less marked in recent years (Williams, Johnson, and others, 1982, p. 57).

While banks in many countries have increasingly come to recognize that their capital ratios should not be permitted to decline further, much of the pressure to maintain them has come from bank supervisors. In some countries, such as the Federal Republic of Germany and Switzerland, legal capital requirements ensured that ratios did not decline significantly in the first place; where subsidiaries abroad were not included in the requirements, however, there may have been some decline on a consolidated basis. In other countries, such as Canada and the United States, general exhortations by supervisors on capital positions have recently been replaced by explicit, albeit informal, guidelines aimed at preventing any future decline. At the same time, there has been a tendency to permit banks to have greater latitude in choosing instruments to increase their capital. Most notable, recognizing the difficulty of raising long-

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12 An excellent survey of prudential safeguards in a number of countries is provided by Dale (1982).
13 Neither the Franklin National Bank nor Bankhaus I.D. Herstatt, for example, was considered to be undercapitalized prior to its difficulties.
14 These data are taken from Revell (1980). Because of conceptual differences and problems of data availability, data on capital asset ratios should be interpreted with caution; in particular, they cannot be used for cross-country comparisons.
15 In most countries, moreover, supervisors give implicit or explicit recognition to the riskiness of a bank’s portfolio in measuring capital adequacy. A change in the mix of assets could thus lead to a supervisory judgment that capital had become more adequate, even though the ratio of capital to unweighted assets had not changed.
term capital in the depressed capital markets of recent years, some supervisors have started to permit banks to consider subordinated debt, generally with maturity in the 5–12 year range, as capital.

Two aspects of international banking that have had special implications for capital positions in recent years should be noted. One is the effect of exchange rate changes. Since banks normally maintain approximate balance between their foreign currency assets and liabilities, appreciation (relative to the home currency) of the currencies in which such items are denominated reduces capital asset ratios and increases the vulnerability of banks to losses on their foreign currency portfolio. The slowdown in the international lending of many European banks in the early 1980s partly reflected the strains on capital positions produced by the appreciation of their dollar-denominated assets. Some banks have moderated this effect by denominated some subordinated debt in foreign currency.

A second aspect of international banking that is important in relation to bank capital is the treatment of provisions for loan losses. Though practices vary from country to country, all countries grant some tax benefit for earmarking part of earnings for reserves, and some countries permit banks to create hidden reserves by writing down assets that in fact they are ultimately likely to recover. In many systems, however, provisions on loans to sovereign governments receive less favorable treatment, on the grounds that, unlike private debtors, sovereign debtors cannot go bankrupt; therefore, provisions for loan losses have been required only in the case of declared default or repudiation. Recently, there has been some shift in this position with respect to countries where large arrears have arisen and rescheduling negotiations have been protracted. Banks in the Federal Republic of Germany, for example, are making partial provisions (10–20 per cent) against their Polish assets, and U.S. banks have begun to take sovereign "problem loans" into account in calculating their need for provisions.

**Control of Country Exposure**

Diversification is a basic technique for reducing the risk involved in financial intermediation. Many countries place explicit limits, expressed in relation to capital, on the exposure of banks to individual borrowers. In some systems, bank supervisors have developed similar guidelines (usually not mandatory) to encompass total lending to borrowers in a given country. The European Community’s system of capital-asset observation ratios affects exposure indirectly by weighting loans differently according to the country of the borrower. In any case, banks normally establish internal limits, adjustable over time, on their country exposures.

Banks also carry out more or less sophisticated analyses of country risk, at least for their large exposures. Supervisors consider it their responsibility to see that banks’ methods of analysis are adequate and that they make use of the best information publicly available. Supervisors do not, in general, advise banks on particular country situations, considering that banks need to take full responsibility for their own credit decisions, though recently supervisors in a number of countries have shown an increasing willingness to discuss country situations on an informal basis with their banks.

In carrying out their analyses, banks face major information problems. Data on the global debt of individual countries to banks do not become available until several months after the reporting date, and even then such data are not fully comprehensive. Information on trends and policy developments in most countries is difficult to obtain, particularly in view of the scarcity of published data. While large banks that are active in a particular country may have some idea of the true situation, others do not. Often, in fact, banks start lending to a country when they see other banks doing so, which might be just the wrong time.

This discussion suggests three areas in which improvement could be sought: (1) availability to banks of more complete and timely data on aggregate bank lending to individual countries; (2) provision of better information on developments in individual countries; and (3) guidelines on bank exposure that apply to changes in exposures, not just to their levels. Improvements in the international coordination of bank supervision of country exposure are also needed; as with bank capital, the recent movement toward evaluation of exposures on a consolidated basis is a step forward.

In other areas of international risk, there is little current evidence of potential threats to bank solvency. Supervisors have tightened their surveillance of foreign exchange exposure, which is now managed much more tightly in most banks than it was before the 1974 bank failures. The interest rate risk resulting from the mismatch of maturities of assets and liabilities is generally

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16 At the same time, of course, such actions reduce reported bank profits, a practice which may be awkward for bank management when profits are poor. Hidden reserves provide bank management with a flexibility in declaring profits and hiding losses that does not exist in countries with more stringent disclosure requirements. Abuses have led to a recent tightening of procedures in Switzerland. The case of a bank declaring a substantial profit when, in fact, it had incurred large losses in silver speculation led to a requirement that banks disclose the extent to which they use hidden reserves to maintain the appearance of continued profitability. Hidden reserves, nonetheless, constitute an important addition to bank capital in a number of systems.

17 The BIS and the Fund are working on projects in this area. Going a step further, the staff of the European Community have advocated an international extension of the systems maintained by a number of the Community’s members for reporting large credits to individual borrowers.
limited by floating rate provisions on bank assets. In some systems, however, banks with substantial holdings of fixed-rate international assets suffered large losses on that part of their business during the recent prolonged rise in interest rates, and individual banks in other countries have from time to time taken substantial losses from speculation on near-term interest rate developments.

The experience gained by banks and their supervisors over the years has resulted in continuously evolving standards for prudent behavior, which by and large must be considered much stronger now than in the past. Each bank failure, each new type of problem, carries lessons that can lead to modifications of prudent standards. Any system is established under a certain set of assumptions about the economic environment in which it operates, and changes in that environment can produce unexpected problems that can threaten bank solvency. The recent behavior of interest rates is a prime example: banks with large holdings of long-term assets at low fixed interest rates have been threatened by the high cost of funds in recent years. Many U.S. savings and loan associations, for example, have been technically insolvent because of their holdings of long-term mortgages at low interest rates, while many German banks have also suffered losses because of their holdings of long-term bonds and loans at fixed rates. It could be argued that such institutions and their supervisors should have considered beforehand the possibility that interest rates would rise sharply, but no set of standards can protect banks under all circumstances—no degree of diversification, for example, could preserve a bank's solvency in the face of the simultaneous bankruptcy of a large number of its customers.

International Coordination of Bank Supervision

A major force for improvement in supervisory standards has been the exchange of information between bank supervisors within the Contact Group of the European Community and within the Basle Committee on Banking Regulations and Supervisory Practices (also called the Cooke Committee), which functions under the auspices of the BIS.

The main thrust of the work on international coordination of bank supervision has been to try to ensure that no bank escapes supervision, and then to work toward some uniformity in supervisory standards so as to reduce incentives for banks to shop around for "easy" locations. Within the industrial world, considerable progress has been made toward these goals, though it is recognized that differences in national banking systems mean that standards will never become entirely uniform. The Group of Ten countries and Switzerland are members of the Basle Committee, and several small industrial countries are effectively brought within its purview through their membership in the European Community. For banks operating in other countries, particularly the offshore centers, only the first steps have been taken toward international coordination.

A major step toward closing the gaps in bank supervision among industrial countries was taken by the Committee's 1975 Concordat on international supervisory cooperation, in which it was agreed that for solvency controls there was some sharing of responsibility for supervision between host and parent authorities, with the emphasis varying according to the type of establishment concerned. For foreign subsidiaries and joint ventures, primary responsibility rests with host authorities; but, in addition, parent authorities must take account of the exposure of their domestic banks' foreign subsidiaries and joint ventures because of those parent banks' moral commitments to those foreign establishments. For foreign branches, solvency is indistinguishable from that of the parent bank as a whole. It is therefore essentially a matter for parent supervisory authorities.19

The somewhat ambiguous phrasing of the Concordat with respect to "foreign subsidiaries and joint ventures" reflected the fact that the various national authorities were not entirely in agreement on the sharing of supervisory responsibility. Since the adoption of the Concordat, the Basle Committee has attempted to give it more precise operational definition. The most important step in this direction came in 1978, when the BIS governors endorsed the Committee's proposal that the evaluation of the adequacy of bank capital by supervisors should be carried out on the basis of consolidation of the positions of subsidiaries, as well as of branches, with the position of the parent bank. While not diminishing the responsibility of the host authority in the case of foreign subsidiaries, this did increase the responsibility of the parental authority. Some countries whose banks are active internationally, such as the United States, have long evaluated solvency on a consolidated basis; most other countries have adopted the principle in the last few years. The major exceptions are the Federal Republic of Germany and France. Germany has not yet passed the necessary legislation, but has worked out a "gentlemen's agreement" with its banks, under which they are reporting their capital position on a consolidated basis but are not yet formally obliged to meet prescribed standards. In France, consolidation is not considered to be as important, since a relatively small proportion of loans to final borrowers (though not to other banks) is booked outside of France.

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18 This subject is explored in greater detail in Appendix I.

19 For the full text of the Concordat, see Williams, Johnson, and others (1981), pp. 29–32.
So far, consolidation has in most cases been limited to broad balance sheet aggregates, such as bank capital. Since supervisors in most countries have only recently begun to pay detailed attention to the country exposures of their banks, consolidation in that area is applied in only a few countries. The Basle Committee has been examining the question and has endorsed consolidation of country exposure.

Supervision of bank solvency thus appears likely to be carried out increasingly on a consolidated basis. Some problems of implementation have arisen, however. The authorities in the United States, for example, feel that, even with consolidation, they still need to supervise closely the operations of foreign banks in the United States. This has led to a sort of “reverse” consolidation, in that they have requested parent banks to provide, on a continuing basis, certain information on their operations elsewhere. While this request was initially opposed by supervisory authorities in other countries (they have now acquiesced in a modified version), it does not in itself conflict with the 1975 Concordat, which is aimed at ensuring that some supervisor takes responsibility and not at avoiding multiple supervision. Another problem of implementation lies with the sharing of information among banks and their supervisors. Some national authorities limit the extent to which banks chartered in their countries can provide information to their parent bank and the parental supervisors—thus posing some obstacles to full consolidation. This issue has arisen, for example, between Luxembourg and the Federal Republic of Germany, but Luxembourg has now agreed that German bank subsidiaries can provide the information necessary for consolidation of bank capital positions. Luxembourg’s recent revision of its banking law, moreover, permits banks to give to their parent banks details of large loans. Luxembourg law does not permit inspection by foreign supervisors, though audit reports can be submitted to them through the parent bank. There are also problems in the allocation of supervisory responsibility for consortium banks or other banks where minority holdings are significant.

Differences in supervisory practices, in the interpretation of the 1975 Concordat, and in application of consolidated reporting mean that there is some variation in the strictness with which banks are supervised in industrial countries; but the gaps that remain in those countries are being closed and in any event do not appear dangerously large. The major problems for coordination of bank supervision lie with the offshore centers outside the industrial countries.

Some offshore centers are less strict in bank supervision than are the industrial countries. As most banks in these centers are branches or subsidiaries of banks headquartered in industrial countries, full consolidated supervision in headquarter countries should eventually do much to make up for any weaknesses in offshore supervision. In the meantime, gaps remain, and bank secrecy regulations in a number of centers mean that it will be some time before full information will be available to parent supervisors. Moreover, there is need for stricter supervision in the offshore centers of some banks headquartered in the offshore centers or elsewhere outside the industrial countries.

The Basle Committee has initiated contacts with offshore bank supervisors, who have now formed a coordination group that should eventually fill some of the remaining gaps. As banks of other countries, such as the rapidly growing Middle Eastern banks, become more important internationally, there will be a need for stronger supervision in those countries. The Basle Committee is sponsoring contacts with supervisors in the developing countries.
VI Prudential Safeguards for Bank Liquidity

Since no system of prudential control can eliminate the possibility of bank failure, depositors can never be certain that banks will be able to repay their deposits; and if doubts arise about the solvency of a bank, depositors will attempt to withdraw their funds. To protect themselves, banks maintain a prudent degree of liquidity. They keep part of their assets in liquid form (which, incidentally, may also reduce the risk of loss from interest rate fluctuations) and arrange for lines of credit with other banks. As with other prudential guidelines or controls, banks need to strike a balance between prudence and profitability: more liquid assets have lower yields, while charges apply to agreed lines of credit with other banks.

This section discusses the adequacy of international banks’ prudential standards in three areas affecting liquidity: (1) the degree to which the maturities of assets and liabilities are matched, (2) the quality of the short-term assets banks can use to meet deposit withdrawals, and (3) the extent to which banks arrange for stand-by lines of credit with other banks.

Matching of Maturities

As was noted above, banks limit their vulnerability to fluctuations in market interest rates in the international area by making floating rate loans, on which the interest rate is reset at regular intervals (usually either three months or six months) on the basis of market rates or continuously on the basis of domestic prime rates. They also, to a large extent, match the maturity of their liabilities to the roll-over dates for their assets. The residual interest rate risk is small enough that fluctuations in market rates are unlikely to cause major problems. This assumes, however, that funds are available to banks at the market rates that form the basis for the interest rates on bank assets. If banks have to pay premium rates to renew their liabilities because of a loss of depositor confidence, more serious losses could result, and in extreme cases, banks could find themselves without access to funds at all.

One way to handle that problem would be to match final maturities, not just roll-over dates. Part of the function of banking is to carry out maturity transformation, however, and much of the profitability of international banking comes from the ability of banks to provide depositors with short-term assets and to provide borrowers with long-term liabilities. Full matching of maturities would imply a very different sort of banking system.

For transactions in domestic currency, the clear availability of a lender of last resort provides banks with the assurance of the liquidity needed to meet unexpected deposit withdrawals, provided that the banks are fundamentally sound. Most banks and supervisory authorities thus consider it not to be imprudent to have some degree of mismatch of maturities on international operations in domestic currency. Mismatch in foreign currencies, however, is a subject of concern in some countries. This concern seems to be felt most strongly in Japan, where banks maintain strict standards for matching maturities, presumably from a general sense of vulnerability to international economic shocks and memories of the tiering that Japanese banks encountered in 1974. French banks follow similar standards. Supervisors in other countries also encourage their banks to be cautious in mismatch of maturities but do not enforce strict standards, and their bankers believe that a substantial degree of mismatch is unavoidable.

Quality of Short-Term Assets

A second aspect of bank liquidity is the encashability of the short-term assets maintained by banks. Most short-term assets denominated in foreign currency take the form of deposits with other banks. One potential source of contagion of banking problems is that banks with deposits in other banks that fail would have their liquidity impaired. In 1974, for example, some banks suffered substantial losses or delays in recovering some of their interbank deposits.

As a result of that experience, banks substantially tightened their procedures for controlling their interbank assets. Most banks now regularly review their lines of credit to other banks on the basis of detailed examinations of their balance sheets and other available information—a tightening of procedures akin to their tightening of country risk analysis. Exposure limits are established that cannot normally be increased without a detailed re-examination of the borrowing bank’s situation. Monitoring of exposure can provide early warnings of potential
problems, and a bank that tries to increase its borrowings rapidly or that fails to reduce its borrowings from time to time will be subject to special scrutiny.

Prior to the 1974 bank failures, banks did not attach much concern to the “daylight exposure” that resulted from accepting payment orders from other banks against settlement later on. Most banks now impose limits on such overdrafts. One motivation for the recent change in the U.S. Clearing House Interbank Payments System (CHIPS) from next-day settlement to same-day settlement was to reduce the duration of such exposure. Banks are also moving to protect themselves from excessive exposure to an individual bank by developing “on-line” monitoring systems, through which they can quickly become aware of any change in their consolidated exposure. This monitoring capability allows the bank to give each branch the large exposure limit it needs for effective operation while preserving effective overall control.

**Interbank Borrowing and Stand-By Credit Lines**

Banks experiencing a run-off of deposits can try to supplement disposal of short-term assets by borrowing from other banks. As the discussion of asset management suggests, the extent to which a bank can normally increase its liabilities to other banks is, at most, the amount available within the credit limits set by such banks. These limits are seldom stated outright. To try to ascertain the limits and to strengthen their image of reliability, banks run their borrowings from other banks up and down. While these credit lines provide assurances of funds to meet normal day-to-day fluctuations in other liabilities, their informality means that they could rapidly disappear if it was believed that the bank was in difficulty. The counterpart of the ability of banks thought to be sound to increase their takings from other banks is the possible cutoff of funding for banks rumored to be unsound.

Many of the financial crises of the 1930s were exacerbated by withdrawal of interbank credit lines, particularly from Central European banks. A recent example of the effects of a specific outside event on interbank confidence is the deterioration of Poland’s situation. Many banks reviewed their limits on other banks that were believed to have large exposures to Poland. As a result, some banks encountered moderate tiering for brief periods. Current banking problems have also occasioned a more widespread review of credit limits.

One way in which banks protect themselves against a run-off of deposits is by establishing confirmed stand-by lines of credit from other banks. These, however, are costly and are used only to a limited extent, mainly by the small banks that are most vulnerable to a cutoff of funding. Quantitative information on such lines is lacking, but one large U.S. bank reports that the stand-by credit lines it has extended to other banks are equal to 10 per cent of its current interbank placings. Reciprocal credit lines, without fees, are sometimes established between, say, large U.S. banks and large German banks to provide assurance of funding in each other’s currencies. Confirmation of credit lines, however, provides no absolute assurance of availability, since credit lines are often subject to certain caveats and, in any case, might not be usable if the granting bank itself were in difficulty.

Though, in general, domestic banking is characterized by a much smaller degree of dependence on interbank deposits than is international banking, in one respect interbank funding is perhaps more important domestically. When individual banks in domestic systems get into trouble, other banks tend to rally to their support in hopes of avoiding the contagious effects of a bank failure on their own operations; often such behavior is encouraged by supervisors. Internationally, banks may be less fearful of possible contagion from the collapse of banks in other countries; in 1974, for example, there was a sharp cutback in interbank credit following the failure of Bankhaus I.D. Herstatt. This distinction should not be overdrawn. In today’s world, banks and bank supervisors are much more conscious of the way in which banking problems in one country can affect banks in others.
Viewed from an international perspective, deposit insurance plays a relatively minor role in bolstering the confidence of depositors. There are also a number of gaps in coverage by lenders of last resort, in terms of both providing support to individual banks and providing liquidity to the international banking system. The nature of these gaps is the subject of the remainder of this paper.

Deposit Insurance

A major feature of the safety nets for most domestic banking systems is deposit insurance. Table 6 summarizes the systems in force in a number of industrial countries, many of which have been installed only recently. In some banking systems, such as that of the United States, deposit insurance has virtually eliminated the danger that fears for the safety of deposits could prompt panicky withdrawals by small depositors. With a limit in the United States of $100,000 for each nonbank depositor in any one bank, all but the wealthiest individuals and large businesses can easily arrange their deposits in order to have complete coverage. Some two thirds of bank liabilities in the United States are covered by deposit insurance. Deposit insurance in other systems is more narrowly focused on protecting the small depositor, as opposed to protecting banks from panicky withdrawals. Limits of coverage may be lower, corporations may be excluded, and in some cases the depositor must bear some fraction of any loss. The importance of deposit insurance in domestic safety nets thus varies substantially from system to system. It plays a particularly important role in systems like that of the United States, with its large network of small, independent banks.

This automatic underpinning for confidence of depositors in many domestic banking systems is largely absent in international banking. While deposit insurance systems do not, by and large, make any distinction between domestic and international depositors, the fact that limits of coverage are low relative to the size of international deposits means that only a small fraction of international deposits is covered. The exclusion of interbank deposits by most systems further reduces the importance of deposit insurance.

Financial Support for International Banks

To help prevent the problems of individual banks from affecting the rest of their domestic banking systems, official agencies provide liquidity support for banks in difficulty. In many banking systems, a certain amount of official support is available almost automatically through, for example, central bank discount windows. Beyond that, however, the extent to which the national authorities are prepared to assist a financial institution is left vague—purposely so, on grounds of moral hazard. Generally, however, they indicate their intention to intervene when they judge it to be necessary, and confidence in their capacity to do so has been generated by the success of their past interventions.

This system of support for domestic banks extends to their international transactions, although various complexities can arise. In the case of the Franklin National Bank, for example, the Federal Reserve Bank of New York, which initially provided its support in U.S. dollars, was faced with the fact that holders of foreign exchange were not prepared to sell to the Franklin National Bank for fear that they would not receive payment. Eventually, the U.S. Federal Reserve undertook to purchase foreign exchange on behalf of the Franklin National Bank to permit the latter to meet its obligations.

20 Appendix II provides more detail on the role of national lenders of last resort in international banking.

21 Arthur Burns, when Chairman of the Board of Governors of the U.S. Federal Reserve System, reportedly was asked by a senior banker, “What would you do if my bank ran into problems?” The reply: “That, sir, is a question I would have to discuss with your successor.” The dilemma faced by lenders of last resort has been described by Spero (1980) as “the problem of trying to make depositors feel confident without making bankers feel complacent.”

22 The main source for the description here of the events of 1974 is Spero (1980). It provides a thorough study of the failure of the Franklin National Bank, with extensive allusions to the failure of Bankhaus I.D. Herstatt and the other bank failures of the period.
Table 6. Bank Deposit Insurance Schemes in Selected Industrial Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Date of Establishment</th>
<th>Organizational Status</th>
<th>Funding</th>
<th>Nonbank Deposits Covered</th>
<th>Limits of Coverage per Depositor</th>
<th>Membership Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>...5</td>
<td>Joint</td>
<td>Pool</td>
<td>All6,7</td>
<td>Variable, case by case</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>1967</td>
<td>Official</td>
<td>Pool</td>
<td>All domestic currency8</td>
<td>Can$20,000</td>
<td>Yes</td>
</tr>
<tr>
<td>France</td>
<td>1979</td>
<td>Private</td>
<td>Unfunded</td>
<td>All domestic currency</td>
<td>F 200,000</td>
<td>Yes</td>
</tr>
<tr>
<td>Germany, Fed. Rep.</td>
<td>1976</td>
<td>Private</td>
<td>Pool</td>
<td>All10</td>
<td>30% of bank's stated equity capital</td>
<td>No</td>
</tr>
<tr>
<td>Italy</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Japan</td>
<td>1971</td>
<td>Joint</td>
<td>Small pool</td>
<td>All domestic currency6,9</td>
<td>¥ 3,000,000</td>
<td>Yes</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1979</td>
<td>Joint</td>
<td>Unfunded</td>
<td>All but company deposits</td>
<td>f. 30,000</td>
<td>No</td>
</tr>
<tr>
<td>Netherlands</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Under consideration</td>
<td>—</td>
<td>Pool</td>
<td>All</td>
<td>100% up to Sw F 20,000</td>
<td>Yes10</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1982</td>
<td>Official</td>
<td>Small pool</td>
<td>All domestic currency</td>
<td>75% up to £10,000</td>
<td>Yes10</td>
</tr>
<tr>
<td>United States</td>
<td>1933</td>
<td>Official</td>
<td>Pool</td>
<td>All</td>
<td>US$100,000</td>
<td>No11</td>
</tr>
</tbody>
</table>

Sources: Various official; and Dale (1982).
1Countries listed are the industrial countries whose banks are active in the international capital markets.
2Schemes organized by banks in most cases were undertaken at the initiative of the authorities.
3Unfunded schemes are supported by guarantees from the participating banks. Pools often include similar protection. In the United States, for example, the Federal Deposit Insurance Corporation has a credit line with the Treasury.
4Liabilities to other banks are usually not covered. Coverage is usually limited to banking entities located within the country. In some cases, certain types of deposit are not covered (e.g., “bons de caisse” in France, certificates of deposit in the United Kingdom).
5No formal system in effect, but the Rediscout and Guarantee Institute provides financial support to troubled banks, with further support available since 1975 from a supplementary special intervention reserve.
6Excludes domestic branches of foreign banks.
7Pay-off discretionary.
8Also covers interbank deposits.
9Includes foreign branches of domestic banks.
10Except for foreign banks with equivalent coverage from home country.
11However, U.S. branches of foreign banks doing retail business and, by state law, banks in all but three states must be members.

By the same token, the system of support extends virtually automatically to the foreign branches of domestic banks, since for most legal purposes the parent bank is fully responsible for meeting the obligations of the branch. In effect, therefore, the parent bank authorities have the ultimate responsibility. The national authorities in that case could normally count on the cooperation of the host country’s authorities, particularly with respect to liabilities in the host country currency. The Franklin National Bank was the first case in which the U.S. discount window was used to cover outflows at foreign branches, and in that case the Bank of England helped the U.S. authorities to perfect the assets of the bank’s London branch, which was needed to secure the advances they had made to the bank.

The situation of subsidiaries is less clear. While the parent bank does not, in general, have formal legal responsibilities, it could normally be expected to support the subsidiary in order to preserve confidence in itself. Where subsidiaries have confirmed lines of credit with the parent (a common practice), the parent’s obligation would be automatic to that extent. Beyond these considerations is the issue of the moral responsibility of the parent.

The bank failures of 1974, particularly that of the Israel-British Bank, focused attention on the question of moral responsibility. The U.K. authorities pressed for international understandings based on the British practice, under which the parents of a closely held subsidiary are virtually required to take responsibility for its obligations. In the case of the Israel-British Bank, the
Bank of England argued that it had no responsibility as lender of last resort for a British subsidiary of a foreign bank, though in an eventual compromise with the Israeli banking authorities the Bank of England contributed to the pool of assets created by merging the resources of the subsidiary with those of the Israeli parent. In the fall of 1974, the Bank of England asked for "comfort letters" from the owners of consortium banks and the foreign parents of U.K. subsidiaries, asking them to acknowledge their "moral responsibility," defined as "responsibility to support those investments beyond the narrow limits laid down by laws of limited liability and, above all, as responsibility to protect depositors with those banks."

Another means of reinforcing the idea of parental responsibility, adopted in Luxembourg, is to require subsidiaries to bear the name of the parent.

Lenders of last resort in other countries have not, in general, acknowledged that they incur any obligations as a result of comfort letters or other understandings between the host country authorities and banks. (In 1976, however, the U.S. Federal Reserve Board indicated that, in deciding on approval of applications by U.S. banks to open foreign subsidiaries, it would take into account the possibility that the parent could be requested to provide support beyond its original commitment.) Thus, even more than in the case of supervisory responsibility, there is ambiguity about the obligations of lenders of last resort with respect to foreign subsidiaries. In this case, as supervisors are quick to point out, there is not even a concordat. Nonetheless, informal understandings appear to be evolving in this area. As in the case of supervision, the responsibility appears increasingly to be placed on the authorities of the parent banks. While some ambiguities remain (witness the recent dispute over support for Banco Ambrosiano Holding in Luxembourg), by and large, when both the subsidiary and the parent are located in industrial countries, the banking authorities in the two countries can be expected to arrive at a satisfactory division of their responsibilities as lenders of last resort. The complexity of ownership of consortium banks, however, might give rise to operational problems in the event of difficulty.

Other banking entities might not be so reliably supported. Particularly in question would be the status of subsidiaries of banks based outside the industrial countries, as the parent authority might lack the ability and willingness to provide support. The status of subsidiaries operating in some offshore centers might also be in question, as there would be neither a local lender of last resort nor, perhaps, a strong understanding on the moral obligations of the parent bank and its authorities. Such banks are in a sense on the fringes of the system, and it is unlikely that failure of a few of them would, in itself, lead to major problems for banks in general. Nonetheless, a residual uncertainty will remain until such banks are firmly brought under the wing of a reliable lender of last resort.

Resolution of Bank Failures

As with their role in providing financial support, the role of lenders of last resort in winding up the affairs of failing banks has special features when international aspects are involved. Even more than in domestic banking, an orderly conclusion of the affairs of failing international banks is important to minimize both the direct financial burden placed on bank creditors and the inevitable shock to the confidence of depositors caused by failures.

After the failures of the 1930s, no failures of major international banks took place until 1974. Lenders of last resort, which inevitably play a major role in winding up the affairs of failing banks, thus did not have their capabilities tested. The contrasting experiences of the Franklin National Bank and Bankhaus I.D. Herstatt in 1974 provide a number of examples of the special aspects of failures of international banks. A difference in viewpoint at that time between the U.S. authorities and those in the Federal Republic of Germany accounts for much of the contrast. The U.S. Federal Reserve intervened early to manage the Franklin National Bank crisis, while the Deutsche Bundesbank argued in the case of Bankhaus I.D. Herstatt that it should not help banks whose problems resulted from illegal activities. Such differences in philosophy apparently still exist among lenders of last resort, but some common lessons about the need for orderly action seem to have been drawn from those experiences.

Despite the fact that the Franklin National Bank was much larger than Bankhaus I.D. Herstatt, the international repercussions of its failure seem to have been less. A major reason is that the U.S. authorities took special action to keep the Franklin National Bank operating and to ensure that the bank met its immediate commitments, in contrast to the abrupt closure of Bankhaus I.D. Herstatt. The fact that not even spot foreign exchange transactions were completed in the latter case meant that, for a time, most banks other than the largest international banks had difficulty in dealing in foreign exchange. While the Franklin National Bank's demise may also have contributed to the general loss of confidence in the health of the international banking system at the time, the orderly way in which it was handled was a positive factor. Since then, a number of banking systems have adopted new techniques for dealing with bank failures.

24 See, for example, Cooke (1981), p. 240.

25 Again, the main source for this description is Spero (1980).
A major question for international confidence is the treatment accorded to foreign creditors in the event of bank failures. Certain actions taken by the U.S. authorities following the failure of the United States National Bank of San Diego in 1973 had left foreign banks uncertain about their situation, and part of the rapidity with which foreign creditors withdrew their funds from the Franklin National Bank may have reflected that experience. In any case, the Federal Deposit Insurance Corporation acted throughout to ensure that foreign creditors would receive no less favorable treatment than domestic creditors. More recently, when the First Pennsylvania Bank was in difficulty, the U.S. Federal Reserve’s public statement of support was reportedly aimed at preventing foreign creditors of other regional U.S. banks from withdrawing their funds.

This approach contrasts with the initial reaction of the German authorities to the failure of Bankhaus I.D. Herstatt, which created some concern abroad that foreign creditors might not receive equitable treatment. Eventually, however, in what has been characterized as “essentially a political solution,” the bank’s foreign creditors in fact received a higher percentage of their claims than did most domestic creditors (Spero, 1980).

International supervisory groups—the European Community’s Contact Group and the Basle Committee—have come to play an important indirect role in dealing with problems of failing banks by providing informal networks through which supervisors can consult each other about the problems of particular banks. This sort of consultative process has begun to be extended to the offshore centers through the establishment of a group of offshore supervisors.

Some problems of coordination still remain, as evidenced by the failure of Banco Ambrosiano, discussed in Section II. A recent example involving a bank outside the industrial countries was the failure of Argentina’s Banco Intercambio Regional. When the Argentine authorities declined to accept responsibility for claims on the bank’s New York branch on grounds that they lacked the authority to do so, the New York State Banking Department took possession of the branch, which had the resources to pay off its own creditors. This action raises awkward questions about conflicting interpretations of the role of lender of last resort, with New York State authorities going against the normal practice of considering the branch an integral part of the parent and seemingly asserting that Argentina had an obligation to protect all foreign creditors. There may also have been concern that the Argentine authorities were not in a position to assure equitable treatment of the creditors of the branch if its assets were left under the parent’s control. Perhaps such action would not have been taken in the case of an institution whose supervisors were in closer contact with the U.S. authorities.

**Lenders of Last Resort and System-Wide Liquidity**

In domestic banking systems, lenders of last resort provide resources in one way or another to the banking system as a whole to preserve liquidity in the face of deposit withdrawals. Such actions can prevent undesirable changes in the money supply and in the value of bank assets by preventing a rise in interest rates and, through their general macroeconomic effects, by supporting the ability of bank debtors to be able to repay their debts. The decline in the confidence of depositors is thus arrested.

When international banking is involved, however, implementation of such a policy might encounter balance of payments constraints, particularly if foreign depositors were less easily reassured than domestic depositors. Hence comes the emphasis, noted previously, on the need for fair treatment of foreign creditors of failing banks. Insofar as the funds withdrawn were reinvested in other instruments in the same country, no capital outflow would result, but in practice some net outflow would be likely. If the drain was very large, the lender of last resort might decide to restrict its banks’ repayment of foreign obligations, whether booked domestically or abroad.26

It thus is important that a lender of last resort faced with balance of payments difficulties resulting from banking problems be able to obtain balance of payments support. The Basle Committee has considered ways in which central banks could cooperate in providing financial support to troubled banks. The major official statement in this area appeared in a communiqué following the September 1974 monthly meeting of the Central Bank Governors of the Group of Ten and Switzerland:

The Governors . . . had an exchange of views on the problem of the lender of last resort in the Euro-markets. They recognized that it would not be practical to lay down in advance detailed rules and procedures for the provision of temporary liquidity. But they were satisfied that means are available for that purpose and will be used if and when necessary.

This statement, which has been reaffirmed on a number of occasions, was designed to provide assurance of the availability of liquidity to deal with system-wide banking disturbances. It clearly was not intended to imply agreement on the provision of liquidity to individual banks, nor did it address the question of how to ensure a continued flow of international finance through banks. It is the possibility of an interruption of that flow that gives rise to questions about an international “lender of last resort”—not for banks, but for borrowers who have lost their access to bank lending.

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26The balance of payments constraint may have been one factor in Argentina’s attitude on its responsibility to foreign creditors in the failure of Banco Intercambio Regional.
Appendix I
International Coordination of Bank Supervision

During the 1960s and early 1970s, a potentially significant imbalance began to develop in the international banking system. While international banking was evolving rapidly, there was little corresponding evolution in international bank supervision and regulation. The rise in multinational banking and the increased importance of liability management in international finance had also greatly increased the integration of the world’s financial system, but national regulators had as yet devoted little attention to increased international regulatory cooperation.

National attitudes toward international banking supervision and supervisory cooperation changed abruptly following the major bank failures of 1974. In September 1974, the Committee on Banking Regulations and Supervisory Practices (the Basle Committee) was formed at the BIS by the Group of Ten and Switzerland. This Committee was to become the most important force in the improvement of national regulation of international banking and the advancement of cooperation between national regulatory authorities.

This Appendix discusses various problems in international banking supervision and notes the progress made in regulatory cooperation since 1974, focusing on the work of the Basle Committee because of its paramount importance in this area. The presentation is divided into three parts. The first part reviews the evolution of international banking prior to 1974 and identifies gaps in national supervision of international banking and in international cooperation among national supervisory bodies. The second part examines the work of the Basle Committee and notes the progress toward effective international supervision and regulatory cooperation. This part discusses the early decisions of the Committee, with emphasis given to their most important agreement, the Concordat. Next, work in the areas of consolidation of reporting, solvency and liquidity regulation, country risk assessment, information flows, and other operational topics is examined. The part concludes with a discussion of the progress in, and the benefits from, international cooperation and understanding.

The third part discusses areas in which international cooperation in banking supervision could be strengthened within the forums already available for international dialogue. It is argued that an important gap remains in international banking regulation and cooperation vis-à-vis many countries outside the Basle Committee. Efforts to establish cooperative relationships with these countries are only now beginning to evolve. In the meantime, some banks involved in international intermediation may well not be subject to effective official supervision.

Background

International banking expanded rapidly in the 1960s and early 1970s, as banks throughout the world increased their foreign lending and opened foreign offices worldwide. Much of the expansion involved the opening of foreign subsidiaries in locations that permitted activities that were prohibited to the foreign branches of the banks. New organizational entities also began to appear. Joint ventures, often with international ownership, began to be formed, and many banking offices were opened in locations that had little or no regulation. Other areas had secrecy laws that made information unavailable to the regulators of parent banks and, in some cases, to the parent banks as well.

This period was also marked by a change in the lending strategy of many larger, wholesale banks. Rather than basing lending decisions on availability of deposits, banks began to practice more active management of their liabilities by borrowing as needed from other financial institutions to finance new loan commitments. As a result, the market for interbank funds flourished. The growth of this market increased the integration of the international financial system. With integration, problems in one part of the market could be easily and rapidly transmitted to other parts of the market.

The expansion of international banking took place with the tacit approval of most national regulatory bodies. In general, supervisors initially viewed as minimal the potential impact of these activities on domestic bank safety and monetary control. Many regulators were also willing to exempt banks’ foreign subsidiaries and joint ventures from certain domestic regulations to allow...
domestically based banks to provide international banking services more competitively. Prior to 1974, therefore, most regulatory agencies devoted only minimal efforts to the study of the foreign activities of domestic banks, and in some localities, the international activities of foreign-owned domestic banks were largely ignored. Although some regulations affecting international banking were enacted, most were designed to curb capital flows rather than to assure more effective supervision and regulation of international banking.

The increased integration of the world's financial system suggested the need for greater international cooperation and coordination between national regulators, but this need was not regarded as pressing prior to 1974. This is not to say that no cooperation was present. Starting in 1960, central bankers of the Group of Ten and Switzerland began meeting monthly at the BIS in Basle to discuss monetary and economic problems. One of the outgrowths of these meetings was the Eurocurrency Standing Committee. Composed of senior officials of central banks in countries of the Group of Ten and Switzerland, the Committee was charged with examining the expansion of the Eurocurrency market. Two significant policy decisions were reached prior to 1974. The first was an agreement to refrain from placing foreign exchange reserves in the Euromarkets. The second led to considerable improvement in statistical data on international banking. At this juncture, the focus was on the macroeconomic implications of market operations rather than on questions of adequate supervision and market stability.

On the supervisory front, an important early advance toward international cooperation took place within the European Community in the form of the Contact Group. This Group, made up of national supervisory authorities and founded in 1972 by members of the Community as an independent consultation group, has subsequently met periodically and informally to foster mutual understanding and practical cooperation.

Nevertheless, the perceptions and techniques of banking regulators were not keeping pace with the integration and adaptations of the world's financial system. Supervisory techniques were primarily domestically oriented, and systems to oversee banks' international operations were not yet fully developed. The difficulties following the international banking problems that emerged in 1974 not only highlighted problems in national regulatory and supervisory policies but also raised doubts about the viability of the international financial system. These problems were confronted in July 1974 at the regular meeting of central bankers at the BIS two weeks after Bankhaus I.D. Herstatt's failure. In September 1974, the Governors issued a communiqué assuring the international banking community that the infrastructure for the provision of the services of lender of last resort to international banks had been created, and such support should, if necessary, be forthcoming. At the same time, "the Governors concluded that a better co-ordination of the surveillance exercised by national authorities over the international banking system was necessary, and to that end they created a new standing committee—the Committee on Banking Regulations and Supervisory Practices—with members drawn from the Group of Ten major industrialised countries and Switzerland" (Cooke (1981), p. 238). The Committee is often referred to as the Basle Committee; it is also known by the names of its chairmen, originally George Blunden and currently Peter Cooke, both of the Bank of England.

The Basle Committee and International Cooperation

Initial Work and Concordat

The Basle Committee was initially charged with developing international early warning systems and identifying problems in national banking systems that could have international repercussions. It was also authorized to examine the condition of the international banking system, coordinate supervision across national boundaries, and respond to international banking problems as they arose.

During the Committee's first year, understandings were reached on several important matters, including at the outset a definition of the Committee's two primary objectives: "The first was the need to adapt the national supervisory system within each country in order to cope with the wider dimensions of their major banks' businesses. The second and complementary task was the promotion of close co-operation between national authorities in monitoring the activities of the overseas branches, subsidiaries and affiliates of their own banks, and the offshoots of foreign banks in their own territories" (Cooke (1981), p. 239). The members also determined that the Committee could be used as a forum in which national supervisors could discuss and learn each other's techniques and consider problems emerging in different national systems. The fostering of close,

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27Most central banks outside the Group of Ten and Switzerland, however, did not follow the first initiative, and only a limited number of industrial countries participated in the second. For a discussion of developments during this period, see Blunden (1977), pp. 326–27.

personal contacts between supervisors was to prove to be an important service of the Committee, since this permitted, inter alia, more rapid and effective cooperation when banking problems crossed national jurisdictions.

A portion of the Committee’s early work involved defining the limits to international cooperation. Recognizing that banking supervisory procedures vary in reflection of national history and differences in national legal systems and that these systems were viewed as a national prerogative, the Committee decided not to press for standardization of national regulatory procedures (Blunden (1977), p. 326). Second, as a corollary, the creation of a supranational regulatory authority to provide an early warning system was deemed to be neither feasible nor necessarily desirable. This partly reflected the concern that such an agency would result in a wasteful duplication of regulatory efforts. The Committee therefore decided that any type of early warning system should be handled through informal consultations among individual members of the Committee or associated groups.

The Basle Committee next directed its efforts to the demarcation of responsibilities of national supervisory authorities in international banking. These efforts resulted in the Concordat on international supervisory cooperation,29 which was endorsed by the participating Governors in December 1975. The principal guidelines of the Concordat, as summarized by Cooke (1981, p. 240), were as follows:

- The supervision of foreign banking establishments should be the joint responsibility of host and parent authorities.
- No foreign banking establishment should escape supervision, each country should ensure that foreign banking establishments are supervised, and supervision should be adequate as judged by both host and parent authorities.
- The supervision of liquidity should be the primary responsibility of host authorities since foreign establishments generally have to conform to local practices for their liquidity management and must comply with local regulations.
- The supervision of solvency of foreign branches should be essentially a matter for the parent authority. In the case of subsidiaries, while primary responsibility lies with the host authority, parent authorities should take account of the exposure of their domestic banks’ foreign subsidiaries and joint ventures because of the parent banks’ moral commitment in this regard.
- Practical co-operation would be facilitated by transfers of information between host and parent authorities and by the granting of permission for inspections by or on behalf of parent authorities on the territory of the host authority. Every effort should be made to remove any legal restraints (particularly in the field of professional secrecy or national sovereignty) which might hinder these forms of cooperation.

It should be noted that the provisions of the Concordat related only to banking supervision and not to the allocation of responsibilities of lenders of last resort among national authorities. Unlike the case with banking supervision, national authorities have deliberately avoided any formal, public delineation of the relative responsibilities of lenders of last resort. This reflects the traditional reluctance of lenders of last resort to specify in advance the extent and nature of the support they are prepared to offer under particular circumstances. The question, however, has not been ignored. In the BIS communiqué of September 1974, for example, the Governors “recognized that it would not be practical to lay down in advance detailed rules and procedures for the provision of temporary liquidity. But they were satisfied that means are available for that purpose and will be used if and when necessary.”

The Concordat represented a significant advance toward generalized international regulatory cooperation. The Concordat, however, was not without its shortcomings. In the words of Peter Cooke, “it should be stressed, though, that the Concordat’s guidelines are not fully implemented in practice and certainly not in law, and there remain areas where the division of responsibility is not entirely clear cut and where banking secrecy provisions are to a degree an impediment to its effectiveness” (Cooke (1981), p. 240).

The Concordat received additional attention in 1979, when its contents were outlined before the supervisory authorities of more than 80 countries at the International Conference of Banking Supervisors in London, hosted by the Bank of England, in association with the Basle Committee. Subsequently, supervisors of major offshore centers were invited to meet with the Basle Committee in October 1980, and on this occasion, the principles of the Concordat were generally accepted by the representatives of the supervisory authorities present. Thus, the landmark guidelines embodied in the Concordat have received a significantly wider international understanding and acceptance.

After establishing this broad framework for the international coordination of banking supervision, the Basle Committee devoted its efforts to several specific areas of banking supervisory practices. Reflecting the nature of the 1974 bank failures, for example, its first topic of discussion was standards for foreign exchange trading by banks. These discussions resulted in implementation of improved standards in the supervision of foreign exchange trading practices.

More recently, major topics of discussion have included consolidation of the reporting of solvency, monitoring of solvency and liquidity, analysis of country risk, and flows of information.

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29 This document, which was released to the public in March 1981 by Peter Cooke, was reproduced in Williams, Johnson, and others (1981).
Consolidation of Reporting

In recent years, the Basle Committee has devoted much effort toward reaching a common understanding on the need for consolidated reporting requirements (i.e., reports on the financial position of the parent bank, overseas branches, and subsidiaries taken together). Its conclusion has been that supervisory authorities cannot be fully assured of the soundness of an individual bank unless they can be assured that the banking group’s total commitments and risks on a consolidated basis are not disproportionate to the group’s capital base (Baeyens (1979), p. 43).

Supervisors in many countries have long examined their domestic banks by consolidating the parent offices’ balance sheets with those of its branches. Even where they do not, the potential problems are usually minimal, since, in practice, foreign branches usually follow the same general prudential standards as their head offices; where the parent authority cannot effectively regulate the activities of a foreign branch, the domestic bank’s safety can be compromised.

Over time, banks have increasingly made use of nonbranch entities, that is, subsidiaries, affiliates, and joint ventures. One problem involved in nonbranch entities is that banks may choose to open them in areas with more liberal regulatory requirements and little or no supervision. Thus, if domestic regulations inhibit or constrain the desired amount of risk taking in certain international activities, banks may circumvent these constraints by operating foreign nonbranch “risk centers.” These entities may also be used to avoid domestic restrictions on country exposure, customer lending limits, and interest rate gapping.

In October 1978, the Basle Committee proposed to the BIS Governors that the solvency of domestically headed banking groups should be evaluated on a consolidated basis, including foreign branches as well as majority-owned subsidiaries, and possibly minority holdings and joint ventures. The BIS Governors strongly endorsed this proposal and recommended its early implementation (Cooke (1981), p. 241). Since that time, most of the BIS members that did not already practice full consolidation have adopted the principle. In some cases, the practice is still evolving. In the Federal Republic of Germany, for example, the necessary revisions in banking legislation have yet to be made.

Nevertheless, a “gentlemen’s agreement” has been worked out under which banks are informally reporting their capital position on a consolidated basis, even though they are not as yet formally required to meet prescribed capital-adequacy standards on that basis. As recognized by the Basle Committee, circumstances differ considerably from country to country. In France, most overseas operations are conducted through branches, and international loans, other than interbank operations, are generally booked with the parent. As a result, the authorities have felt less need to progress rapidly to full consolidation.

 Supervision of bank solvency thus appears likely to be carried out increasingly on a consolidated basis, although there have been some problems of implementation. One problem area lies with sharing of information among banks and their supervisors. Some authorities limit the extent to which banks chartered in their countries can provide information to their parent and the parental supervisors, which poses some obstacles to full consolidation. This led to problems between, for example, Luxembourg and the Federal Republic of Germany, but Luxembourg has now agreed that German bank subsidiaries can provide the information necessary for consolidation of bank capital positions. Luxembourg’s new banking law, moreover, permits banks to give to their parents details of large loans. Unlike the case in many other countries, Luxembourg (as well as Swiss) law does not permit inspection by foreign supervisors, though audit reports can be submitted to them through the parent bank. Another problem is some remaining ambiguity about treatment of consortium banks and of minority holdings in general.

Solvency and Liquidity Regulation

To maintain a viable and functioning international banking system, participants within the system must be both solvent and liquid. In recent years, the supervisors in many countries have been concerned about reduced solvency (capital) ratios owing in part to the rapid expansion of banks’ international business. At the same time, many banks have had difficulty raising new capital as a result of low stock prices and, where permitted, have increasingly substituted long-term debt for equity capital. Nevertheless, in some major financial market countries, capital ratios have either continued to decline or the decline has been arrested at historically low levels. Recently, bankers have also voiced concern about this fundamental aspect of prudent bank management.

While problems of declining solvency ratios and techniques of solvency analysis have been regularly considered at meetings of the Basle Committee, the Committee’s formal action in this area has been limited to its consolidation proposal. The Committee has accepted implicitly that a variety of procedures may be adequate to gauge bank solvency but that a consolidated view of domestic banks’ total commitments is needed in order for regulators to effectively evaluate them.

Much of the Basle Committee’s work in the area of liquidity management has been directed at improving the statistical data on bank maturity mismatching. In 1978, at the request of the Governors of the Group of Ten, the Committee began construction of a uniform reporting
system for collecting data on banks’ maturity transformation in their international business (Cooke (1981), p. 242). In September 1980, it was agreed that the BIS would begin collecting consolidated data with detailed maturity breakdowns from sight to seven years on all international assets and liabilities of reporting banks. Data collection began in March 1981. The system, however, is not expected to be fully operational for some time, because participating countries still have to substantially extend or amend their data collection on maturity transformation before they can provide this information.

Country Risk Assessment

The Basle Committee has devoted considerable attention to country risk analysis. The Committee began collecting data on country exposure and maturity transformation in 1977, and in 1979 the BIS published a handbook on country indebtedness statistics. The Committee also discussed broad, informal guidelines for the supervision of banks’ country risk exposure, as well as alternative approaches to the measurement of country risk exposure. These guidelines seemed to be in general conformity with country risk evaluation procedures already in place in several countries.

The consensus view of the Committee appears to be that country risk, like other forms of credit risk, should be left to the judgment of the lending bank. Under this approach, the role of the supervisor should be (1) to ensure that country risk, as well as other risks, is not excessive relative to the banks’ capacity to meet losses; (2) to assist banks to assess their risks by ensuring they have the best possible data; (3) to ensure that banks have adequate assessment and control procedures; and (4) to improve prudential reporting and monitoring systems (Cooke (1981), p. 242). Consistent with this approach, the responsibility of country risk assessment and portfolio diversification would be left to the individual banks, but evaluation of their country risk management system would be an important aspect of official supervision.

The Committee has also discussed major aspects of the measurement of country risk. The general view is that, as with overall solvency, country exposure should be assessed on a consolidated basis.

Information Flows

In the belief that the exchange of information across national borders was crucial to the effective supervision of international banking, three types of improvement in information flows were proposed in the Concordat. The first was for the direct transfer of information between host and parent authorities of reports submitted by foreign banks. Second, direct inspections by parents of their domestic banks’ foreign establishments were proposed. Third, when direct inspection was not possible, indirect inspections through the agency of the host authorities were called for.

The reason for these proposals was that “bank secrecy laws or regulations in some countries can enjoin banks not to reveal information about their customers and can preclude supervisors from divulging to other supervisory authorities information which they have acquired in the course of their duties. Obstacles to free cross-border flows of information between foreign offshoots and their parents and between host and parent authorities, while their significance should not be overemphasised, raise a number of practical barriers to fully effective cooperation. First, foreign establishments may not be able to reveal information to their parent banks, or the parent bank may invoke the secrecy rules of the host country not to divulge information to its parent authority. Second, host authorities may be precluded by local laws or practice on professional secrecy from revealing information about the banks under their supervision to parent authorities. Third, differences in the laws of professional secrecy applied to different supervisory authorities could potentially make information less well protected in one country than in another. Finally, parent authorities may be prevented from conducting on-the-spot inspections to verify the information they receive” (Cooke (1981), p. 243).

Although views naturally differ, impediments to information transfers between foreign banks and their parent regulators were, and are, viewed by many regulators as potentially one of the most damaging obstacles to regulatory cooperation and a sound international banking system. Because of these concerns, much effort has been expended by Committee members to expedite the international exchange of supervisory information and to implement cross-border on-site inspections. Nowhere has the progress been more apparent than within the EC. The early efforts of the Contact Group were taken a step further at the end of 1977, by the First EEC Banking Coordination Directive. The Directive required supervisory authorities in EC member countries to supply one another with “all information concerning the management and ownership of such credit institutions that is likely to facilitate their supervision and the examination of conditions for their authorization and all information likely to facilitate the monitoring of their liquidity and solvency.” Some EC members have extended coopera-

30 In this context, country risk was defined as the risk faced by banks that one or more borrowers, whose liquidity and solvency by normal tests are not in question, may be unable to service their debts because of events in their own country.

31 Attempts to expand this legislation to banks’ foreign subsidiaries and to allow direct foreign inspection, however, have been abandoned.
tion beyond that outlined in the Directive. For example, several EC members have entered into bilateral direct inspection agreements with one another and with some countries outside the Community.

Other Basle Committee members have also expedited international exchanges of information. The United States now directly inspects the foreign branches and majority-owned subsidiaries of U.S. banks in several countries with the permission of the local authorities. The U.S. authorities also encourage joint inspection pacts that allow foreign regulators to inspect their U.S. branches and subsidiaries. Outside the Basle Committee, the progress toward international information flows has been varied. Some countries allow direct foreign inspection; others support complete secrecy. In some countries, despite a shortage of trained supervisory personnel, foreign consolidated supervision of domestic subsidiaries on a consolidated basis is not permitted. In other countries, government inspectors may neither publish nor communicate any information relating to a bank's operations, its accounts, or the quantity or origin of its earnings, profits, or losses.

A subsidiary problem of international information flows is the problem of data consistency. Differing national accounting and auditing practices as well as varying data requirements may result in confusion or regulatory breakdowns when data are exchanged internationally. Progress in this area has been limited.32

International Cooperation and Understanding

An important but rather vague goal of the Basle Committee has been the fostering of mutual understanding and cooperation between national supervisory bodies. As was discussed earlier, prior to 1974 few national regulators had much contact with their counterparts in other nations. The creation of the Basle Committee ameliorated this problem for members of the Group of Ten and Switzerland. These face-to-face meetings and the agreements that ensued have aided national regulators and the banks themselves to reduce the risks present in the international banking system. The progress toward operational goals, however, should only be regarded as the most visible benefit of the Committee. Many less visible but highly beneficial results have also been derived.

Through these discussions, regulators have been able to observe and reduce the weaknesses within their own systems as well as to take advantage of the strengths of other systems. This, in turn, has allowed national regulators not only to increase their own effectiveness but also to prepare improved legislative proposals as well. These discussions have helped national supervisors understand the constraints and preferences of their foreign counterparts, and this has promoted compromise and cooperation. Supervisors have become more willing to discuss actual and potential banking problems, within the limits of national secrecy laws, moving closer toward a de facto early warning system for banking crises. Finally, the growth of mutual trust and understanding has created a situation in which national regulators can cooperate more easily and effectively when banking problems cross national boundaries. An example of this was the effective cooperation between Belgian and U.S. authorities following the joint collapse of American Bank and Trust of New York and Banque de l’Amérique du Sud of Belgium in 1979. Prior contacts allowed for the rapid exchange of information and effective joint action. The case was later discussed and reviewed within the Committee.

Future Work in International Coordination

Future efforts toward the more effective supervision of international banking will probably continue to be centered around the Basle Committee. Fuller and wider implementation of the Concordat appears to be an important priority goal as is encouraging more effective supervision by Committee nonmembers. Cooperation with national supervisors outside the Basle Committee has been evolving and could prove increasingly important in the future. Although the Concordat has been generally accepted by Committee membership, much work remains to be done for its implementation. If the Concordat were more fully and extensively implemented, regulators would not only be able to monitor the international activities of their own banks more thoroughly, but they could also more effectively spot systemic problems as they develop. If a country finds some aspects of this agreement unacceptable, efforts should be devoted to achieving the spirit of the agreement within the constraints imposed by that country.

One of the most important areas of work for the Basle Committee involves further efforts to assist in the improvement of supervision and cooperation with supervisors who are not members of the Committee. As long as the banks of Committee members can have branches or subsidiaries in locations that are exempt from supervision by the parental authorities, and with minimal or no local regulation, banks that wish to can bypass supervisory constraints imposed elsewhere in the world by using

32 Besides the topics mentioned above, other subjects reviewed by the Basle Committee include “the role of profit and loss analysis in bank supervision; techniques of rescue and support; deposit protection arrangements in different countries; the supervision of banks' trust business; and the prudential implications of certain aspects of loan syndication agreements” (Cooke (1981), p. 242).
these entities as risk centers. Risk centers could prove damaging to the parent bank’s domestic banking system as well as the international banking system as a whole.

Although most of the largest and most important banks in the international markets are headquartered in the countries of Committee members, many nonmembers possess banks that are closely and extensively involved with the international banking markets. If some banks are inadequately supervised, they may be prone to failure either as a result of their own actions or as a result of difficulties elsewhere in the system. Difficulties in these banks could also damage otherwise sound banks as a result of interbank exposures. Therefore, it is in the interest of members and nonmembers alike to cooperate and to encourage as wide acceptance as possible of the basic principles of the Concordat.

The first major step toward cooperative action involving nonmembers was the International Conference of Banking Supervisors held in London in July 1979, where the precepts of the Concordat were generally accepted. A second meeting was held in September 1981 in Washington, D.C. Occasional worldwide meetings are an efficient way to disseminate information about international banking regulation, but their main importance is that they can set the stage for later direct contact between regulators on a bilateral basis.

Two new organizations similar to the Basle Committee have been formed recently, the Offshore Supervisor’s Group and the Commission of Latin-American and Caribbean Banking Supervisors and Regulatory Bodies (CLABSR). In October 1980, the Basle Committee sponsored a meeting with supervisors from major offshore centers in Basle. The participants at this meeting broadly endorsed the principles of the Concordat, but adaptations in their supervisory practices and policies will necessarily take time to implement. The Offshore -Group held additional meetings in September 1981 and again in September 1982. Among the important actions of this Group have been its endorsement of the principles of the Concordat and its support of the view that no foreign banking institution should escape supervision. The Group also recognizes the advantages of international supervision on a fully consolidated basis and, within the constraints imposed by national legislation, seeks to force the development of acceptable systems for the exchange of supervisory information. It has also found that, although diverse, its members share many common problems, and it has established a coordinating framework for working toward joint solutions to their problems. The agreement to form the CLABSR was concluded in July 1981. These kinds of organizational grouping and contact and dialogue among them are important further steps toward the strengthening of international banking supervision, which are needed to underpin the stability of the system. Individual cooperative actions, such as the opening of U.S. banking supervisors’ schools to foreign regulators, are also to be welcomed.
Appendix II
National Lenders of Last Resort in an International Banking System

The purpose of this Appendix is to examine how the role of the national lender of last resort is modified in the presence of large-scale international banking activities. It is limited to a survey of concepts and practices.

The presentation is divided into five parts. The first defines "lender of last resort." The second part examines the need for providing lender of last resort services in an internationally oriented banking system. The third part outlines the requirements for effectiveness of a lender of last resort. These include sensitivity to the full costs of inaction, effectively unlimited resources, and the ability to offset the undesirable effects the presence of a lender of last resort may tend to create.

The objectives of lenders of last resort in providing their services are examined in the fourth part. While they are naturally concerned with maintaining the world's payments system, their primary motive is the protection of the domestic financial system. They may also wish to support their banks in the export of international banking services or to encourage foreign banks to locate domestically. As the various national lenders of last resort may attach different weights to these objectives, there might well be certain banks or groups of banks that would not receive direct support in the event of banking difficulties. However, the operation of the world's payments system may be protected indirectly as national lenders of last resort pursue their primary goal, that is, protection of their domestic financial systems. The fifth part examines the available information about the provision of lender of last resort services in actual or hypothetical situations.

The Lender of Last Resort

Banks, as financial intermediaries, take on liquid short-term liabilities and use them to create less liquid, longer-term assets. Outflows of liabilities are normally offset by cutting back new lending or liquidating existing assets. When the financial system comes under severe stress, however, large-scale liquidations of deposits may occur. When this happens, otherwise solvent banks may fail as a result of large losses taken in the process of liquidating their assets, and bank customers may be forced into bankruptcy by the ensuing monetary and credit contraction.

The role of the lender of last resort is to stand ready in times of stress to provide credit to solvent, but temporarily illiquid, institutions. While lenders of last resort have at times assisted foreign intermediaries or foreign financial systems, in general their efforts have been directed to the protection of the domestic financial system. Certain classical writers, such as Thornton (1802) and Bagehot (1873), believed that the lender of last resort should aim at assuring the liquidity of the banking system as a whole rather than at supporting individual banks. In practice, however, lenders of last resort have also undertaken to provide liquidity to individual financial institutions whose solvency was endangered by liquidity problems.

Lender of last resort services have been provided by a variety of official institutions with the power, the resources, and the disposition to do so, such as monarchs and government treasuries (Kindleberger (1978), pp. 165–74). In the last century, however, this responsibility has become largely consolidated in the hands of central bankers.

Need for Lenders of Last Resort

The argument for the provision of services by official lenders of last resort is based on the notion that the social cost of bank failure (or multiple bank failures) significantly exceeds the private costs. This in turn is based on the notion that the financial system is inherently so fragile that one bank's problems may easily spread to other banks. Guttentag and Herring (1981, p. 8) have observed that, in most industries, one firm's failure will not hurt the credit standing of the other firms. But in banking, interbank credit extensions may cause one

33For a good survey of the classical theory of the lender of last resort, see Humphrey (1975).
bank's failure to damage the solvency of other banks. Many banks, especially large ones, also hold similar assets in their portfolios, so that one bank's weakness may raise suspicions about other banks. On either ground, failure of one bank may result in deposit outflows from other banks. Deposit insurance, where it exists, may reduce depositors' propensity to withdraw, but in no banking system does such insurance cover all deposits.

Large-scale withdrawals of deposits impair the liquidity of the system and ultimately could threaten bank solvency. To the extent that bank assets are not highly liquid, when large-scale withdrawals occur, asset liquidation is difficult and expensive, impairing the capital bases of the banks involved. Such withdrawals may also result in a potentially dangerous monetary contraction if the deposits should be moved into assets with higher required reserve ratios or into cash. The associated shortages of loanable funds may force customers into bankruptcy. The resulting loan losses may, in turn, further threaten bank solvency.

Disruption of financial intermediation by banks, of course, entails major problems for the real economy. Many authors have argued that a lender of last resort is thus needed to stem potential crises by providing sufficient funds, at a price, to offset the liquidity problems caused by a major outflow of funds. In this way, solvent banks may survive, the confidence of depositors in the safety of their funds may be restored, and the social costs of a banking crisis may be avoided.

These arguments probably apply with even greater force where banks have an international involvement. The role played in international banking by interbank credit is especially large. There is also a strong degree of similarity in many banks' international bank portfolios, given the large share of international loans taken up by, or with the guarantee of, a few large sovereign borrowers and a small number of major multinational corporations. Information problems, moreover, may make it especially difficult for international depositors to distinguish between sound and unsound banks. The large size of individual deposits also implies not only minimal coverage by deposit insurance but also the possibility of abrupt outflows of deposits.

A general finding of the Kindleberger study (1978, pp. 218–26) of the history of bank crises and financial panics was that the existence of a lender of last resort can forestall many potential panics and that the crises that do occur in the presence of an effective lender of last resort tend to be shorter and milder than those that take place without the presence of an effective lender of last resort. The central banks of most countries appear to accept the need to act as lender of last resort for their domestic banking systems, and they have generally supported the need for international cooperation in performing their role.

Criteria for the Effectiveness of Lenders of Last Resort

Guttentag and Herring (1981, pp. 13–23) have explored the criteria for the effectiveness of lenders of last resort at some length, and this part is largely based on their findings. According to them, an effective lender of last resort must meet three criteria. First, for its actions to be timely and effective, it must be sensitive to the full range of social costs resulting from its inaction. Second, its resources should be either unlimited or greater than its largest conceivable needs. Third, it must be able to limit socially unacceptable forms of risk taking that the presence of a lender of last resort may tend to promote. The last of these points refers to the fact that the presence of a lender of last resort may encourage banks in general to pursue less prudent policies. Troubled banks actually being supported by the lender of last resort, moreover, may engage in particularly imprudent activities, following what Guttentag and Herring (1981, p. 11) have called "go for broke" strategies in the hope of averting failure. Effective bank supervision is essential to meeting the third requirement.

International banking poses special problems for lenders of last resort in meeting these requirements. First, the social costs of international bank failures extend beyond the purview of any single country's lender of last resort. International banking problems pose a danger to the international payments system that could cause losses to all users of international banking services. A crisis in one region may cause losses to depositors in other regions, as well as hurt current and potential borrowers in other parts of the world. Thus, no single lender of last resort may be willing to save a given international bank from a liquidity crisis, because the domestic consequences of inaction do not appear to outweigh the potential cost of support, even though the global consequences may.

Second, even when a lender of last resort has effectively unlimited resources in domestic currency, the fact that international bank deposits may be denominated in foreign currencies can pose problems. If the domestic lender of last resort does not have large foreign exchange holdings, support of its banks' international operations will be effective only as long as currency convertibility is maintained. Such an operation could result in downward pressure on the home currency of the lender of last resort in the foreign exchange markets. If the country is unwilling to allow such a depreciation, it has to either cease providing lender of last resort support, borrow foreign exchange, or undertake domestic adjustment policies.

Another aspect of the availability of resources is collateralization. Most lenders of last resort protect themselves against default of the troubled bank on advances by requiring specified types of collateral...
Motivations of Lenders of Last Resort with Respect to International Banks

The world’s payments system is a common good, with its benefits accruing to all users of international banking services. In the absence of an ultimate lender of last resort that is fully sensitive to these costs, the provision of services by lenders of last resort to a particular bank in a particular situation must be based on the benefits seen to each potential lender of last resort. If one (or more) of a country’s internationally oriented banks experiences problems, the major consideration for a potential lender of last resort is likely to be the implication of any action or inaction for its domestic financial system. Since international banking problems would tend to fall most heavily on some or all of a nation’s large banks, the protection of the domestic financial system could provide sufficient impetus to warrant the provision of services by lenders of last resort to domestic banks as well as to their foreign branches.

Third, an international bank’s lender of last resort may also be unable to assure the prudent behavior of the troubled bank. To the extent to which the troubled bank has offices in foreign jurisdictions, the lender of last resort may not be in a position to supervise the activities of all of the offices of a troubled bank or even be able to gauge its overall solvency.

Even if ways are found to deal with these problems, so that national lenders of last resort are effective in providing their services to international banks, one of the chief arguments for the provision of such services might not be met. One implicit assumption in domestic operations by lenders of last resort has always been that banks will use the proceeds of the support by lenders of last resort to continue their intermediary role, an assumption that may not be applicable to international banking. International banking is not always marked by close customer relationships, so protecting the solvency of an international bank may not guarantee the bank’s continued role in international intermediation, or that important international borrowers will not lose their access to credit.

Evidence on the Provision of Lender of Last Resort Services

Frankel (1975, pp. 122–23) has suggested that lenders of last resort could be motivated to provide support on the basis of either nationality of bank charter or residence of facility. A lender of last resort may support the foreign branches of domestic banks, and possibly their foreign subsidiaries and joint ventures, to enhance the “brand name” capital of domestically chartered banks. Domestic banks could thus compete more effectively in the international market and export more international banking services. Support may also be extended to foreign subsidiaries and joint ventures, since the profits from these operations, as well as corollary business, accrue to the bank’s domestic parents.

Support based on residence of facility, on the other hand, would enhance the “brand name” capital of a potential banking jurisdiction and encourage more foreign banks to locate in that region. The local authority would benefit from this in the form of increased licensing fees, higher tax revenues, and increased local employment. A lender of last resort pursuing this policy would protect domestically located subsidiaries and joint ventures as well as branches of foreign banks.

The possibility of differing motivations among lenders of last resort suggests the possibility of gaps in coverage. A lender of last resort seeking to protect its domestic financial system would not necessarily support its country’s foreign subsidiaries and joint ventures. On the other hand, if the goal was to support the expansion of international banking by domestically chartered banks, all foreign offices could be supported, but local subsidiaries of foreign banks might not be supported. By the same token, however, multiple motivations could also lead to multiple coverage.

Evidence on the Provision of Lender of Last Resort Services

Given the requirements of an effective lender of last resort and the reasons for providing its services, who then will provide such a lender’s international services for a given bank in a given situation? The question is difficult, as lenders of last resort are generally unwilling to specify in advance the situations in which they would provide their services. Official statements on the subject have been rare. However, some generalizations may perhaps be made from statements by individual lenders of last resort as well as from their responses to recent events involving international banks.

The problem for lenders of last resort is that any indication of even the possible provision of their services, or any apparent generalization from cases where their services were provided, may reduce bank prudence. This view has been publicly espoused by central bankers.
According to U.S. Federal Reserve Board Governor Wallich (1978, pp. 95–96), for example, “There are dangers in trying to define and publicize specific rules for emergency assistance to troubled banks, notably the possibility of causing undue reliance on such facilities and possible relaxation of needed caution on the part of all market participants.” Bank of England Executive Director (now Deputy Governor) McMahon (1978, pp. 108–109) expressed the same view: “... banks might be tempted to sail too close to the wind with the presumption that support would automatically be forthcoming if they got into difficulties.” Central bankers attempt to minimize this potential by generating uncertainty about the availability of the facilities of lenders of last resort. When facilities are provided, lenders of last resort go to great pains to stress the specificity of the case and to warn bankers that such services will not necessarily be available in the future.

Guttentag and Herring (1981, pp. 27–28) have contended that this lack of assurance may not necessarily be socially optimal. First, they argue that it falls primarily on smaller banks, since large banks are perceived by depositors to have more reliable access to the facilities of lenders of last resort and therefore are able to attract greater funds more easily and independently of their risk. Against this view, however, it should be noted that, following the failure of Bankhaus I.D. Herstatt, much of the tiering of interest rates that occurred was directed against banks of particular nationalities, even when such banks were large; and the tiering after the Penn Square National Bank failure in 1982 was particularly pronounced for some very large banks. Second, Guttentag and Herring argue that such statements may make uninsured depositors more likely to panic in the event of systemic problems.

Despite the general secretiveness of lenders of last resort, some information is available about possible support from them. According to Andrew Brimmer (1976, pp. 28–29), at the meeting of Central Bank Governors of the Group of Ten and Switzerland at the BIS in July 1974 following the collapse of Bankhaus I.D. Herstatt, a general agreement as to lenders of last resort was reached in principle. In deference to one member’s objections, however, no explicit commitment was made.

On September 10, 1974, however, the BIS released the following communiqué on behalf of the Central Bank Governors from the countries of the Group of Ten and Switzerland:

The Governors ... had an exchange of views on the problem of the lender of last resort in the Euro-markets. They recognized that it would not be practical to lay down in advance detailed rules and procedures for the provision of temporary liquidity. But they were satisfied that means are available for that purpose and will be used if and when necessary.

Some observers have speculated that behind this broad statement was an agreed plan with respect both to the allocation of responsibilities of lenders of last resort and the circumstances under which such support would be provided to banks experiencing difficulties. Although such speculation is interesting, subsequent developments with respect to individual banks, as in the case of Banco Ambrosiano, have cast doubts on whether such firm commitments exist. Nonetheless, central bankers (for example, Wallich (1978) and McMahon (1978)), while noting the impropriety of making definite advance commitments, stressed that the infrastructure for providing international assistance by lenders of last resort was in place.

Some analysts have contended that the Concordat on banking supervision of the Basle Committee35 could be applied to the allocation of responsibilities to lenders of last resort. There is, however, no direct link between the two, and it has often been pointed out that the work of the Basle Committee (also called the Cooke Committee) involves supervision, not financial support. The coordination of responsibilities of lenders of last resort lies with the BIS Committee on Euromarkets. Moreover, a number of the country representatives on the Basle Committee are not central bankers.

Empirical evidence on the division of responsibility among lenders of last resort in the event of an international banking crisis is lacking, given the fortunate absence of such crises in recent years. Beyond their primary function of directly or indirectly providing liquidity to illiquid but solvent institutions, however, lenders of last resort generally acknowledge a related responsibility for ensuring an orderly resolution of the affairs of failing banks, as disorderly failures could lead to uncertainty about other banks and a consequent demand for services of lenders of last resort in the narrower sense. Few banks with significant international operations have run into trouble in recent years. Four cases seem worthy of note: Bankhaus I.D. Herstatt, the Franklin National Bank, the Israel-British Bank, and Banco Ambrosiano.

The failure of Bankhaus I.D. Herstatt clearly fell within the sphere of responsibility of the German authorities and thus did not raise significant jurisdictional questions. The treatment of foreign creditors, however, was an issue for a time. Initially, some questions were raised as to whether foreign creditors would receive treatment comparable to that accorded to domestic creditors, but in the end their treatment of the former was at least as favorable as their treatment of the latter. This appeared to demonstrate an awareness on the part of lenders of last resort of a need to be particularly careful about international aspects of bank failures (Spero (1980), pp. 110–13).

35See discussion in Section V of the paper and in Appendix I.
Responsibility for resolving the affairs of the Franklin National Bank was equally clear cut, but this bank failure provides an example of international cooperation in providing financial support. The U.S. Federal Reserve permitted discount window borrowings to support the bank's branch in London from the time problems were announced until the bank was merged, effectively accepting responsibility for its foreign branches. In doing so, it received the cooperation of the Bank of England.\textsuperscript{36}

Partly as a result of fraud at its parent bank and partly as a result of the difficulties after the failure of Bankhaus I.D. Herstatt, the London subsidiary of the Israel-British Bank of Tel Aviv failed in July of 1974. After the collapse, British and Israeli authorities both maintained that they did not have responsibility for the failed bank. In the end, the Israeli authorities accepted responsibility. As a compromise, but not as a precedent, the Bank of England contributed £3 million to the Israel-British Bank's pool of assets (Spero, 1980, pp. 156–57).

The Italian Banco Ambrosiano failed in the summer of 1982. Under the guidance of the Italian authorities, the parent bank was closed and reorganized, with full protection provided to depositors. Banco Ambrosiano Holding of Luxembourg, a 65 per cent controlled subsidiary, however, was allowed to fail with no guarantee of depositor protection. The Luxembourg authorities and the creditors of Banco Ambrosiano Holding objected to this course of action. The basic issue was obscured by certain technical questions,\textsuperscript{37} but it nonetheless points up the possibility of gaps in coverage by lenders of last resort.

\textsuperscript{36}See footnote 34.

\textsuperscript{37}Banco Ambrosiano Holding was technically a holding company, not a bank. The Italian authorities cited this as one reason for their inaction. The Luxembourg authorities, at the same time, pointed out that they had no supervisory responsibility for holding companies, implying that they could certainly not be expected in that case to share in the responsibilities of lender of last resort.
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