



The Role of Loan Loss Reserves in Measuring the Capital Adequacy of Commercial Banks

Board of Governors of the Federal Reserve System

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CAPITAL ADEQUACY OF COMMERCIAL BANKS**

Section 3604 of the Omnibus Trade and Competitiveness Act enacted by Congress in December, 1988, requires the Federal Reserve Board to submit a report on the issues raised by including loan loss reserves in the primary capital of commercial banks. The Act states that the report should address the treatment of loan loss reserves and the composition of primary capital of banks in other industrialized countries and should also include an analysis as to whether loan loss reserves should continue to count as primary capital for regulatory purposes. This report presents the Federal Reserve Board's analyses and recommendations.

Summary

Loan loss reserves have traditionally been included in official supervisory measures of bank capital because they are available to absorb identified losses. They are part of primary capital, which has been the official standard since 1981, and most recently have been included, subject to certain limitations, as part of the internationally agreed upon risk-based capital standard. In earlier decades, authorities also considered these reserves to be part of supervisory capital, although no official standard existed.

Previously, though, these reserves took on a somewhat different character. They were generally much smaller relative to loans and equity, and they were clearly of a more general nature. Rarely in the past had banks established "special" reserves tied to particular developments, as they did in 1987 for loans to heavily indebted countries. Moreover, any such reserves in the past were not as large as the substantial special reserves that the largest U.S. banks have today. The level of international competition among banks was also much less in prior years. National authorities could determine supervisory standards that met their needs with little consideration to practices abroad.

By almost any measure, the special reserves created in 1987 had a major impact on the way loan loss reserves were viewed in evaluating bank capital. They also compounded the growing problems of comparing capital measures of U.S. and foreign banks and maintaining an equitable basis for competition. Authorities from around the world began to focus on these issues and, with the adoption of the international "Basle Accord," developed a new standard of capital adequacy--one tailored to the risk profile of the bank and that could apply similarly to all.

As a participant in the development of this Accord, the Federal Reserve Board supports the inclusion of loan loss reserves as part of capital, as prescribed by the Accord. To qualify as capital, reserves must not relate to specific assets and must not reflect a reduction in the valuation of particular

assets. In addition, the role played by reserves in capital should do nothing to undermine the maintenance of an adequate base of core or equity capital.

The treatment of loan loss reserves was discussed at length during the recent international negotiations on the risk-based standard. Participants recognized that it is not always possible to distinguish clearly between general loan loss reserves which are genuinely free to absorb unidentified losses and those reserves that, in reality, are earmarked against assets already identified as impaired. In addition, they wanted to ensure that banks held adequate amounts of "core" capital and that the banks not expand their activities on the basis of reserves that were effectively devoted to possible charge-offs of existing, though unrecognized, losses.

In negotiating the Basle Accord, the participants decided to continue reviewing the treatment of loan loss reserves as capital with the intent of developing more consistent and definitive guidelines on the types of reserves eligible for inclusion in capital by the end of 1992. However, in the event further agreement is not reached, the amount of loan loss reserves that qualify as capital would be phased down so that, at the end of 1992, such items would constitute no more than 1.25 percent (or exceptionally and temporarily up to 2.0 percentage points) of risk weighted assets. Such reserves would also be considered as a secondary element of regulatory capital.

Structure of the report

This report is divided into several parts. The first part provides a background for evaluating the role of loan loss reserves as capital by describing the basic functions of capital and the evolution and role of reserves. The second part demonstrates the practical effects of the factors influencing the level of reserves by showing how the relation between reserves and other performance measures of U.S. banks has changed.

The third part of the report reviews the treatment of loan loss reserves and the composition of primary capital in selected foreign industrialized countries. The differences highlighted illustrate the increasing need for a more consistent international capital standard in a market where national boundaries are becoming less important. Finally, the recently adopted risk based capital standard, which should address many of these problems, is the subject of the fourth part.

PART I: THE CONCEPTUAL ROLE OF BANK CAPITAL
AND LOSS RESERVES

Banks and other financial institutions build reserves for loan losses because such losses are a normal operating expense associated with the business of lending. In the long run, a bank can adjust its pricing policies to cover these and other operating costs and provide an adequate return to its owners, but it must first withstand shocks arising from short-run events.

Banks have essentially three "lines of defense" to withstand loan losses: (1) current earnings, (2) loss reserves, and (3) equity capital. In both theory and practice, these elements are closely linked. A bank's loan loss provision is an operating expense that reduces the earnings it would otherwise report and is the method by which loan loss reserves are increased. All loan charge-offs, in turn, are charged against and reduce the reserve and do not directly affect either equity, operating expenses, or net income. Finally, if a bank needs to make such large provisions that it incurs an operating loss, its equity capital declines.

Overview of bank capital

This section provides background information on the role of bank capital, including a definition of capital generic to all firms and the definition of capital, as applied to banks.

Definition of capital. Traditionally defined, capital represents the owners' interest in a business and may take two principal forms: equity capital and, under certain conditions, subordinated debt. Equity is the purest form and represents the owner's historical investment in a business. Mechanically, it is the difference between the reported assets and liabilities of an organization. Equity consists of two parts:

- (1) funds contributed to the organization externally through investments by owners in the form of either common or preferred stock--including contributions in excess of stated par values, and
- (2) previous earnings that have been retained by the organization and not distributed to owners through dividends. For this purpose, retained earnings would also include any capital reserves, which are effectively segregated portions of retained earnings (or other capital), that may be established to meet various contingent obligations.

Subordinated debt may also represent capital if its specific terms require that the debt be converted into equity or that it otherwise absorb losses under certain circumstances.

Since 1981, the U.S. bank regulatory agencies have used a measure of bank capital that recognizes these and other forms of capital. "Primary" capital consists of common and perpetual preferred stock, loan loss reserves, minority interests in consolidated subsidiaries, debt whose terms require

that it eventually be converted into equity funds ("mandatory convertible debt"), and perpetual debt (i.e., debt that has no maturity date and that automatically converts into equity if losses reach a certain level). "Total" capital is primary capital, plus limited-life preferred stock and other types of subordinated debt.

The current U.S. regulatory minimum standard for capital adequacy requires commercial banks and bank holding companies to maintain primary capital ratios of 5.5 percent of assets and total capital ratios of 6.0 percent. This approach ensures that equity and other permanent capital components dominate the measure, while recognizing the potential benefits of subordinated debt and its economic advantage to banking organizations.

Functions of capital. The essential functions of capital in banks differ somewhat from the generic functions that apply to capital for nonbanking firms. These differences evolve from the support banks have traditionally received from governments and, in the United States, also from the nature of the deposit insurance system.

A. Generic functions:

- (1) Capital absorbs losses. This is its principal role.
- (2) Capital promotes economic efficiency, encourages greater self-discipline by management, and helps to protect the customers' interests. By having their own

funds at risk, investors and managers are discouraged from taking excessive risks.

- (3) Capital helps to allocate economic resources to areas of greatest need. Equity funds provide the basis for redistributing still other resources to areas where they can be better employed based upon market demands.

B. Functions specific to banking:

- (1) Capital serves to promote public confidence.

Uninsured depositors are unsecured creditors and place their funds in banks with the expectation that both the principal and interest are safe. An adequately capitalized banking system helps to maintain public confidence in both private and public institutions. Such confidence is particularly critical to the viability of banks and other financial institutions that depend heavily on short-term borrowed funds.

- (2) Capital, combined with formal or informal leverage limits, restricts excessive growth. The level of government protection historically given to banks, and the specific nature of the U.S. deposit insurance program, tend to reduce market discipline on the activities of banks. Insured depositors, whose funds are protected, may become indifferent about where and how their funds are used. This indifference can fuel growth of inefficient organizations that do not efficiently employ the funds and can place the

institutions and banking system at greater risk. Meaningful leverage limits force management to demonstrate that it can adequately employ new resources in order to attract investors and obtain equity funds to facilitate further growth.

- (3) Capital provides management and government authorities additional time to take corrective action. Without an adequate loss-absorbing cushion, adverse events can make an institution insolvent with little warning.

The use of loan loss reserves

Reserves are used because banks, through experience, are able to predict with some accuracy the size of expected losses and because the "matching principle" under Generally Accepted Accounting Principles (GAAP) holds that expenses be matched with, or recorded in the same period as, the revenues that they helped to generate. Under this principle, estimated credit losses should be recorded for loans because they are a "cost" associated with the interest income generated by those loans. Periodic additions to a loan loss reserve provide the funds to absorb the losses when they finally occur.

Different "types" of reserves. There are essentially two types of loan loss reserves: "General" reserves are available to absorb losses anywhere in the portfolio, and do not reflect a reduction in the valuation of particular assets. "Specific" reserves, on the other hand, are identified with specific assets

that show clear indications of loss; they effectively represent charge-offs and are not recognized as capital by most regulatory bodies. Recognizing the difference between these two concepts is critical to any discussion concerning the inclusion of loan loss reserves in bank regulatory capital.

Influencing factors. The size and role of general loan loss reserves have been affected principally by three factors: (1) the level of losses a bank expects to incur, (2) the amount of reserves (or loss "provisions") it may deduct for tax purposes, and (3) regulatory and accounting policies. For decades, U.S. tax laws encouraged banks to maintain reserves larger than their historical losses. More recently, however, both the tax laws and the loss experience of the banking industry have changed and have made accounting and regulatory policies more significant in determining the level of reserves. Each of these factors is discussed below.

(A) Level of expected loan losses. Assessing the quality of a bank's assets and identifying likely or actual losses is an on-going activity at most banks. At least quarterly the results of that review are revealed in publicly disclosed statements. When evaluating the bank's losses, management collects input from lending, accounting, and credit officers, economists, and other sources to reach judgments about the size of known losses and the likelihood of others. Known losses are charged-off against the

established reserve, and the assets are removed from the loan portfolio. Losses that are not specifically known are the basis for establishing on-going reserves.

Banks may use a variety of procedures to estimate future losses on their existing loans. Commonly these procedures involve dividing the loan portfolio and off-balance sheet exposures into several categories:

- (1) pools of specific types of loans with common characteristics. Loans in this category generally exist in large numbers and tend to have relatively steady and predictable rates of loss, such as consumer loans for credit cards, automobile financing, and even home mortgages. Some of these loans will be completely, or almost entirely lost, while others will remain sound. Losses from this category of loans can often be actuarially based with reasonable accuracy.

- (2) loans with similar characteristics and whose borrowers appear to be sound. These loans may include all commercial and industrial loans not placed elsewhere, or loans to companies in specific economic sectors. Collectively, loans to these borrowers share some common elements of risk, but they are generally much fewer in number than those in the first category, and their expected rate of loss is usually more dependent upon specific economic factors.

(3) loans that demonstrate clear weaknesses. This category typically includes commercial loans, rather than consumer loans, and would generally include all loans "classified" or criticized either by internal auditors or bank examiners. Management often reviews these loans individually to determine both the likelihood and size of the possible loss. Although these loans are likely to experience a higher rate of loss than those in the other categories, sufficient uncertainty remains about the possibility or timing of loss on individual assets that no specific charge-off should be made.

Procedurally, all additions to, or reductions from, the reserve are made through charges or credits to a "provision for loan and lease losses" account on the income statement. Technically, then, actual loan losses (charge-offs) are not part of an institution's current expenses. Rather, they are deducted from an existing loan loss reserve that is maintained by a periodic loan loss provision, which is a current operating expense. Recent research indicates that the relation between current provisions and charge-offs is generally strong.¹

¹S. Wayne Passmore and Betsy B. White, "The Effect of Loan Losses on Bank Profitability," Recent Trends In Commercial Bank Profitability, a staff study of the Federal Reserve Bank of New York, Chapter 8, pp. 141-157.

(B) Tax laws. During the period 1921 to 1965, banks were able to deduct all increases to their loan loss reserves as current expenses for tax purposes. Consequently, banks were encouraged by tax policy to maintain reserves at maximum levels. In 1965, however, the IRS issued Revenue Ruling 65-92 and excluded loss provisions when the allowance for loan and lease losses reached 2.4 percent of eligible outstanding loans, a rate still larger than the historical loss experience of most banks.²

Several years later, with passage of the Tax Reform Act of 1969, Congress revised those guidelines with the intent to tie the banks' tax-deductions closer to their actual needs. It did so by prescribing two methods for calculating tax-deductible amounts: the "percentage method", and the "experience method". The percentage method allowed banks to deduct provisions that were necessary to maintain a loan loss reserve at a designated percentage of loans; it also specified that the percent allowed should gradually decline. The experience method allowed deductions based on the amount of actual losses.

By the early 1970s, the reserve ratio for the percentage method that was relevant for tax purposes had declined from 2.4 percent of loans to 1.8 percent. The ratio continued to decrease through scheduled reductions

²Board of Governors of the Federal Reserve System, Commercial Bank Examination Manual, Section 219.1, page 1.

until reaching 0.6 percent just prior to the Tax Reform Act of 1986. That Act, which is the most recent legislation pertaining to this issue, eliminated the deductibility of loan loss provisions completely and permits banks to deduct only the amount of loans actually charged-off.

(C) Accounting procedures. Generally Accepted Accounting Principles (GAAP) require banks to maintain an adequate allowance for loan and lease losses. The Statement of Financial Accounting Standards (SFAS) No. 5, Accounting for Contingencies, provides specific standards for the accounting and reporting of possible losses by requiring institutions to accrue estimated losses if both of the following conditions exist:

1. Information available before the financial statements are issued indicates that it is probable that an asset has been impaired or a liability has been incurred by the date of the financial statements.
2. The amount of the loss can be reasonably estimated.

The 1983 Industry Audit Guide, Audits for Banks, provides additional guidance on the application of SFAS No. 5 to banking institutions:

A bank should maintain a reasonable allowance for loan losses applicable to all categories of loans through periodic charges to operating expenses. The amount of the provision can be considered reasonable when the

allowance for loan losses, including the current provision, is considered by management to be adequate to cover estimated losses inherent in the loan portfolio. In other words, the propriety of the accounting treatment should be judged according to the adequacy of the allowance determined on a consistent basis, not the provision charged to operating expenses.

The Bank Audit Guide recommends that CPAs review several factors when they assess the adequacy of a bank's loan loss reserve:

- (1) the loss experience with each major type of loan;
 - (2) the structure of the loan portfolio;
 - (3) the nature of any changes in lending policies and credit review procedures; and
 - (4) current economic conditions and trends.
- (D) Regulatory standards. Bank regulators began in 1969 to require banks to charge a minimum provision for credit losses against current income, regardless of the level of existing reserves. The procedures required by the regulators emphasized historical charge-off rates and generally produced an amount smaller than the maximum expense allowed for tax purposes. As a result, many banks used the amount that was deductible for tax purposes for financial statement purposes, as well; this conveniently

³Audits of Banks, prepared by the Banking Committee, (AICPA, 1983), pp. 61-62.

solved the problem of separately determining the appropriate level of reserves. Banks tended to maintain the maximum allowable IRS reserve and to assume that their loan loss provisions were adequate if they exceeded the regulatory minimum.

Loan loss reserves based on tax laws, however, do not necessarily consider the panoply of economic and financial factors required to adequately assess potential loan and lease losses. Moreover, in an environment of declining credit quality, banks could be discouraged from increasing their reserves, since any additions beyond those allowed for tax purposes would be made with after-tax funds.

In view of these considerations, the banking agencies changed their policies in 1975. New guidelines were developed that gave bank managers greater flexibility, but that required them to document their rationale and to maintain an adequate level of reserves.

Supervision policies, consistent with GAAP, now require bank managements to maintain an "adequate" allowance for loan and lease losses, and to evaluate the adequacy of the allowance at least quarterly. These evaluations and the supporting documentation are subject to examiner review. Bank regulators have consistently emphasized that bank management should critically and frequently reassess its loan loss reserve and not rely merely on a mechanical process or formula.

PART II: A REVIEW OF THE DATA

U.S. banking supervisors have historically included loan loss reserves in the definition of capital for assessing capital adequacy--informally until 1981, and formally, thereafter. That approach was based on the view that a bank's reserves were generally available to absorb losses throughout the loan portfolio.

In June 1987, however, many U.S. banks established special reserves typically equal to about one-quarter of their exposure to heavily indebted countries. Subsequently, some banks charged-off, sold, or otherwise removed foreign loans from their assets, while others have not. These special reserves and the diverse approach banks have taken toward resolving their asset quality problems have changed the generally stable relation between reserves and other measures of bank performance and have also complicated the analysis of bank capital.

Banks that reduced their foreign exposure have depleted much of the special reserves that they could otherwise count as capital under the primary capital measure but have also improved the general quality of their assets. In contrast, banks that have not materially reduced their exposure continue to report the reserves and, consequently, higher primary capital ratios. This effect has focused attention on the broader question of whether loan loss reserves are fully general in nature, or whether some portion of them reflect specific valuation adjustments to particular assets.

A review of several ratios will help to identify the traditional level of reserves and the manner in which the level has recently changed:

- (1) reserves as a percent of total loans. This ratio reveals management's view of the volume of expected losses inherent in the existing portfolio. Barring a major shift in the nature of a bank's business that fundamentally changes its level of risk, this ratio should be steady. It should rise as expected losses increase, but should then decline, as losses are charged to reserves.
- (2) reserves as a percent of equity. This ratio shows the relationship of funds available for expected (though unidentified) losses to funds available for unexpected events. An historically low ratio could mean, among other things, that reserves are inadequate or that credit quality is good; an historically high one could mean (a) that reserves are too large (b) that the risk of the basic business has increased, or (c) that the reserves have some characteristics that are specific, not general, in nature.
- (3) nonperforming assets to total loans. This ratio measures the quality of the loan portfolio. As the ratio increases future losses should grow.

No single ratio reveals the full nature of the reserves or the significance of any change. Examined together, however, the

effect of the special reserves on the primary capital measures of the largest banks becomes clearer.

- (1) From 1976 through 1986, all U.S. banks generally maintained reserves equal to about 1.0 percent to 1.5 percent of loans and around 10 percent to 15 percent of equity (Charts 1 and 2).
- (2) During 1987, reserves of the 25 largest banks rose from 1.8 percent of loans to more than 4.5 percent and from 22 percent of equity to more than 65 percent. In sharp contrast, the reserves of all other banks (those without large foreign exposure and reserves) rose only moderately by these measures during that time. (Detailed figures are provided in Appendix A.)
- (3) Nonperforming assets of all banks were also relatively stable during 1982 through 1986 at around 2.5 percent to 3.0 percent of loans (Chart 3).⁴ Since then, the ratio of the 25 largest banks has climbed to 5.7 percent in 1987 and then dropped to about 4.8 percent at the end of 1988. This level, again, contrasts with the asset quality ratio of the smaller institutions.

⁴Data on nonperforming assets were first reported in 1982.

CHART 1

LOAN LOSS RESERVES/ TOTAL LOANS

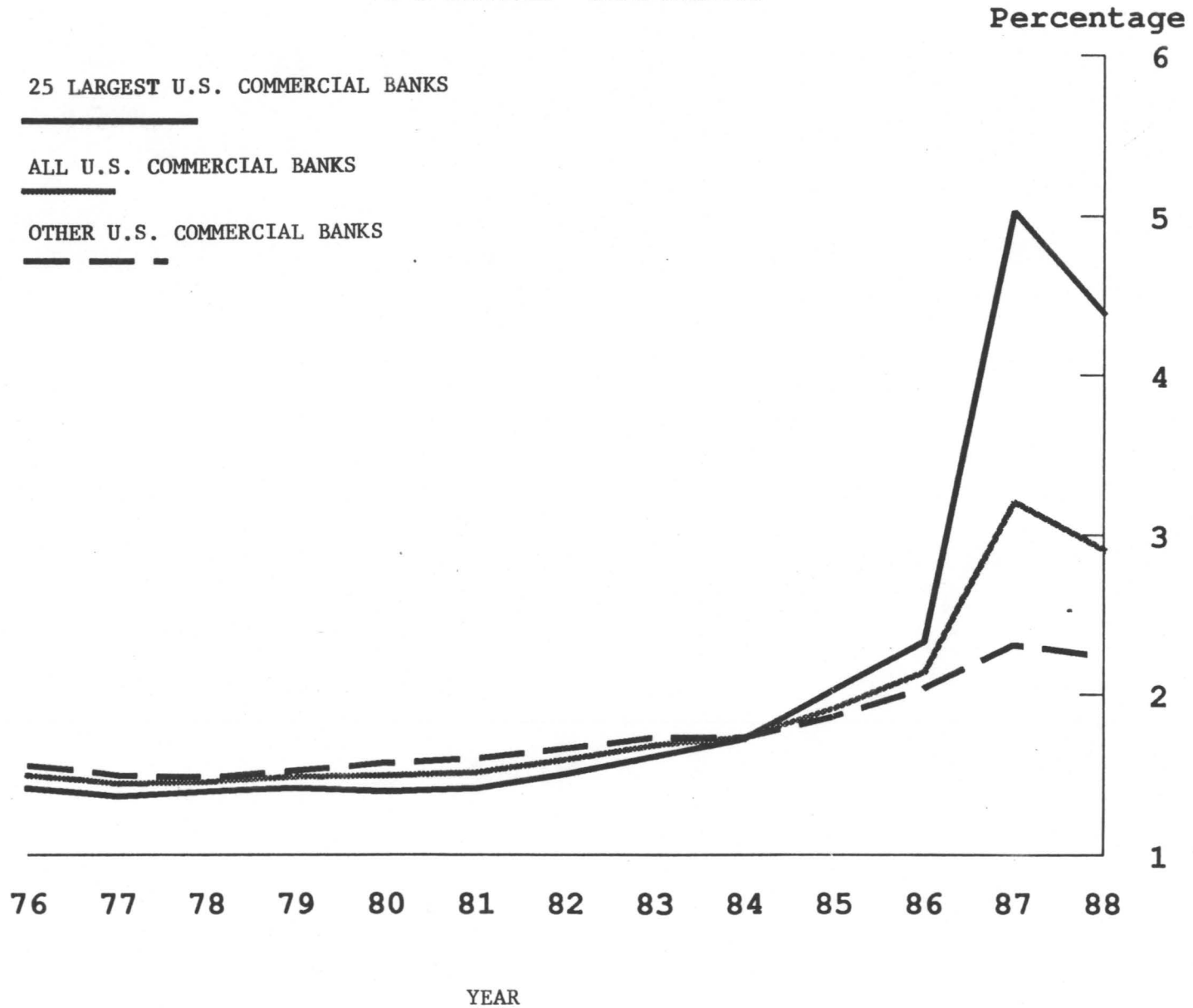


CHART 2

LOAN LOSS RESERVES/ TOTAL EQUITY

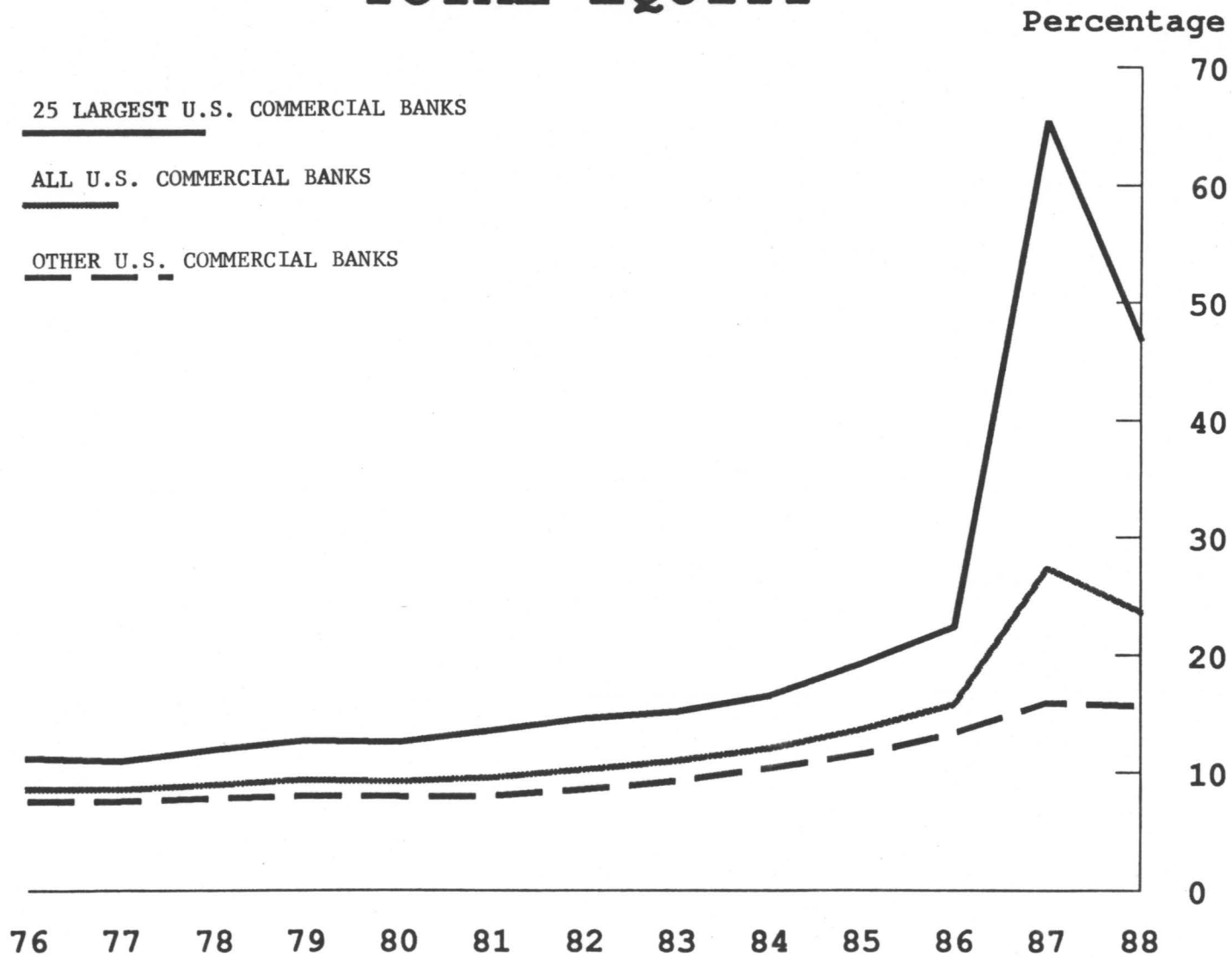
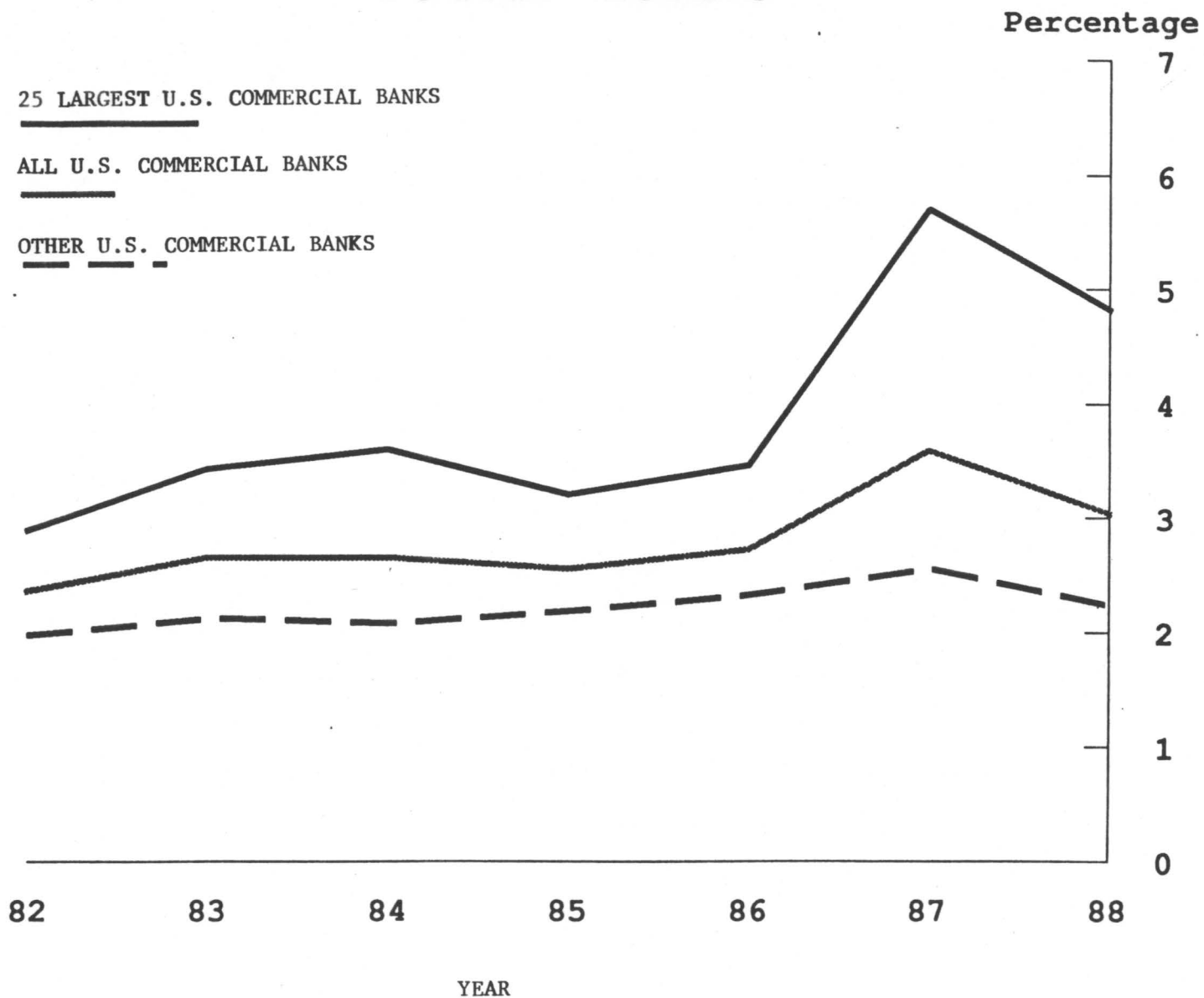


CHART 3

NON PERFORMING ASSETS/ TOTAL LOANS



If asset quality had improved for these largest companies, one could argue that the increased reserves tend to be general in nature. However, in view of the apparent decline in asset quality, one has reason to question whether certain components of the reserve have characteristics that are specific, rather than general.

PART III: RESERVES AND PRIMARY CAPITAL ABROAD

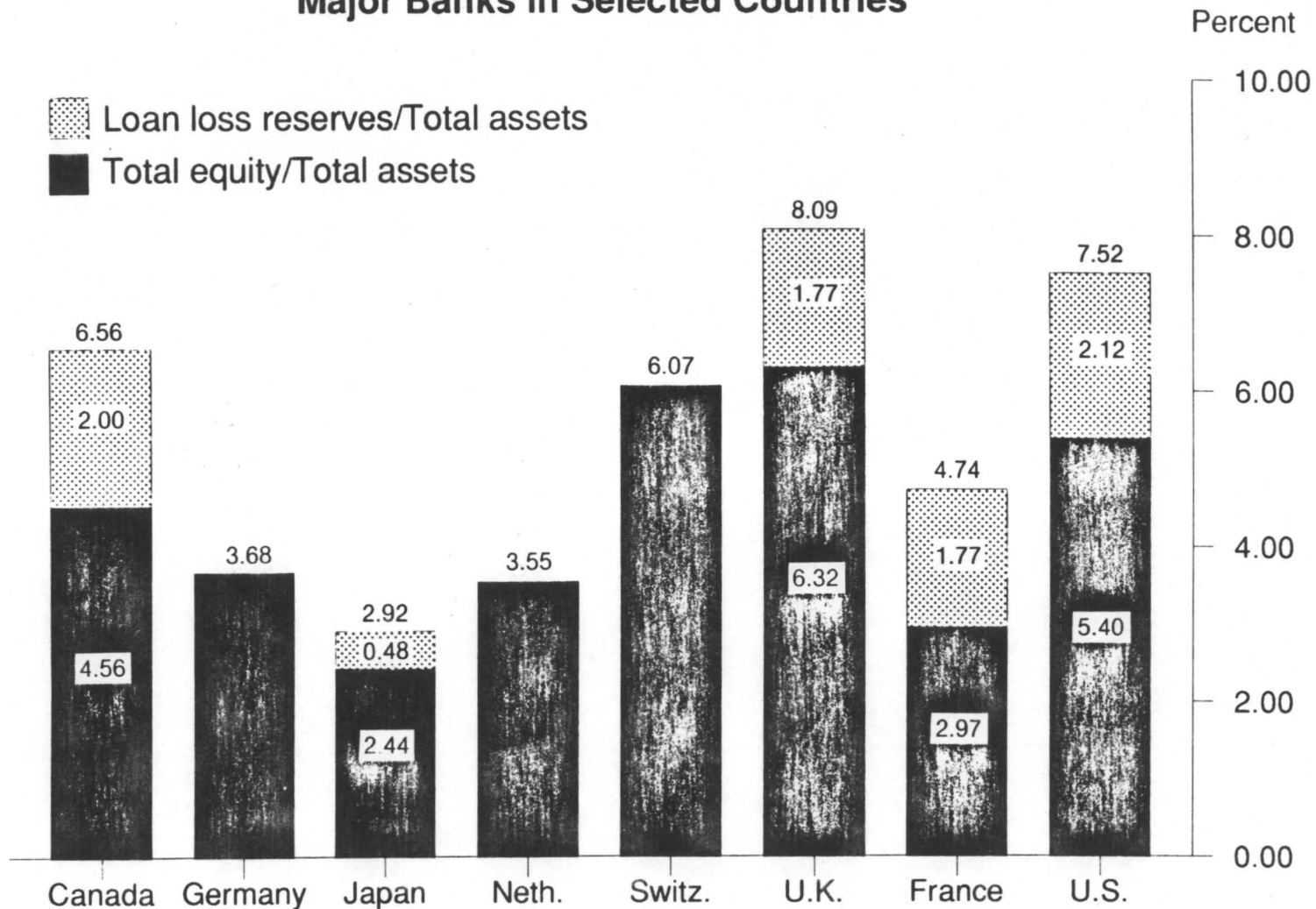
Banking systems around the world operate under a broad range of accounting and operating practices, laws, and regulations. These differences result from an array of factors, ranging from the roles banks have performed in the economic development of their countries to the variety of attitudes about the information banks should (or may) publicly disclose. These differences have also made comparing and analyzing banks from different countries a complex task.

When evaluating the capital adequacy of banking organizations, one should focus on the total capacity of an organization to absorb losses and on the amount of losses it should reasonably expect. In this regard, both equity capital and reserves are available to absorb losses.

Publicly available data help to illustrate the broad range of capital ratios and reserve information currently reported by major banks throughout the world (Chart 4) but reflect problems of comparability, as noted above. The ratios shown in the chart represent weighted average ratios reported by selected major banks. Although data for only selected banks from each country were used, those institutions typically accounted for a significant share of the banking assets in their home countries. The U.S. figures represent the average ratios for the 25 largest U.S. banking organizations, which

Chart 4

Equity and Loan Loss Reserves as a Percent of Assets, Major Banks in Selected Countries



These figures are based upon publicly-reported numbers and do not reflect certain nondisclosed reserves or asset revaluation reserves that may be included in regulatory capital in some countries. For some countries figures are as of 1987; for others they are as of 1988.

collectively represent 50 percent of the assets of all large U.S. bank holding companies.⁵

These figures indicate that "typical" ratios of reported equity relative to assets for the representative foreign banks range from 2.4 percent (Japan) to 6.3 percent (United Kingdom). Adding available information on reserves, the ratios range from 2.9 percent (Japan) to 8.1 percent (United Kingdom). By comparison, the average equity to assets ratio for the 25 largest U.S. banking organizations is 5.4 percent and the ratio after adding reserves is 7.5 percent.

These charts highlight the point that reserves are treated differently among countries. For example, banks from Switzerland, the Netherlands, and Germany do not disclose their loan loss reserves, while the U.S. and Japanese banks do. However, the financial statements of Japanese banks do not reflect the current market value of large holdings of equity securities, which are carried for financial reporting purposes at historical costs and are considered as regulatory capital. A more complete discussion of the tax and regulatory treatment of loan loss reserves abroad is provided in Appendix B. All of these factors accentuate the differences among bank capital definitions and standards.

⁵At the end of 1988, these 25 largest companies had total assets of \$1,350 billion, compared with \$2,700 billion for all U.S. bank holding companies that had assets exceeding \$150 million.

This general lack of international consistency, the growing globalization of banking markets, and the need to strengthen the soundness and stability of the international banking system, were among the major factors leading to the adoption of a consistent international standard of capital adequacy. That risk-based capital standard, endorsed by the central bank governors from the Group of Ten countries, is known as the Basle Accord.

PART IV. THE RISK-BASED CAPITAL STANDARD.

The issue of the treatment of loan loss reserves was a particularly complicating factor to authorities from around the world that negotiated the recently adopted risk-based capital standard. Most participants recognized the loss-absorbing nature of general loan loss reserves, but wanted to distinguish between general and specific reserves. Where provisions have been created against identified losses or in connection with a demonstrable deterioration in the value of particular assets, they are not freely available to meet unidentified losses which may subsequently arise and do not possess an essential characteristic of capital. Such specific or earmarked provisions should, therefore, not be included in the capital base.

The solution reached was to divide capital into two groups: a core or "Tier 1" segment consisting of shareholders' equity and a second supplementary or "Tier 2" segment for more restricted types of "capital." Loan loss reserves and other "non-core" items were placed in the second group. This distinction reflects the predominant role accorded to common stockholders' equity due, in part, to the fact that it provides maximum flexibility to absorb losses.

Although, the risk-based capital standard recognizes loan loss reserves, it does so with limits: first, only general, not clearly specific, allowances are considered to be a component of capital. The "allocated transfer risk reserve" of

U.S. banks and specific reserves of other countries are excluded from the definition of capital.⁶ Secondly, loan loss reserves that may reflect lower valuations of assets are limited (under a phase-in period) in view of the potential uncertainty over whether such reserves are freely available to absorb losses anywhere in the portfolio.

Recognizing the confusion surrounding the proper treatment of reserves, the parties to the Basle Accord agreed to develop proposals by the end of 1990 to ensure international consistency in the definition of loan loss reserves eligible as capital. In the event that agreement is not reached, permissible allowances for loan and lease losses will be reduced to 1.25 percent of risk weighted assets by the end of 1992.⁷ Reserves beyond that limit will not be counted as part of bank capital.

This approach seems to strike a reasonable balance in the treatment of loan loss reserves. It recognizes the traditional "general" nature of certain components of these reserves, while minimizing distortions caused recently by special reserves relating to loans to highly indebted countries.

⁶The International Lending Supervision Act of 1983 requires U.S. banks to establish an "allocated transfer risk reserve" against assets whose value, as determined by the federal banking agencies, has been impaired by a protracted inability of public or private borrowers in a foreign country to make payments on their external indebtedness.

⁷When the risk-based standard initially takes effect at the end of 1990, loan loss reserves will be limited to 1.5 percent of risk-weighted assets.

It also recognizes the fungibility of the reserves, while not attempting to isolate specific segments of the reserve and introducing further artificial constraints. Rather, by limiting the amount of reserves that may be included in regulatory capital to 1.25 percent of risk assets, the approach allows latitude to include reserves at levels comparable to the historical loss experience of U.S. banks.⁸

⁸In order to determine the latitude provided by the risk-based capital standard for including reserves at levels comparable to historical experience, the following considerations are useful:

1. The risk-based standard limits the amount of reserves that may be included as part of tier 2 capital to 1.5 percent of risk weighted assets from the end of 1990 to the end of 1992; subsequently, if an alternative agreement is not reached, the reserve ratio would decrease to 1.25 percent. (Reserves are defined as general loan-loss reserves which may include amounts reflecting lower valuation of assets or latent but unidentified losses present in the balance sheet. Exceptionally and temporarily the reserve ratio may be as high as 2.0 percent.)

2. The average ratio of loan loss reserves to total loans for the period 1976 through 1986 was 1.14 percent for all domestic banks and 1.10 percent for the 25 largest.

3. Bank risk weighted assets tend to exceed total loans, as indicated by the ratio of risk weighted assets to total assets ranging between 71 and 110 percent, in contrast to the ratio of loans to total assets averaging between 55 percent and 66 percent from 1976-1988.

4. The 1.25 percent limit of reserves to risk weighted assets is less restrictive than the same numeric limit based on total loans because risk weighted assets are typically a larger base (denominator) than total loans.

Conclusion

The Federal Reserve Board believes that loan loss reserves of otherwise solvent institutions should be considered as capital, provided that the reserves are general in nature. Accordingly, the Board fully supports the treatment of reserves, as described in the recent risk-based capital accord. That understanding calls for additional study of the proper treatment of loan loss reserves in capital, while providing a fall-back position if no further agreement is reached. Absent an agreement, the reserves allowable as capital will be reduced to 1.25 percent of risk weighted assets by the end of 1992. This level is consistent with the traditional relation of loan loss reserves to loans for U.S. banks.

Appendix A

**Selected ratios, insured commercial banks,
by size class**

Percentages

<u>Date</u>	<u>Loan Loss Reserves To Total Loans</u>			<u>Loan Loss Reserves To Total Equity</u>			<u>Nonperforming Assets To Total Loans</u>		
	<u>Top25</u>	<u>All</u>	<u>Non25</u>	<u>Top25</u>	<u>All</u>	<u>Non25</u>	<u>Top25</u>	<u>All</u>	<u>Non25</u>
1976	0.92	1.00	1.06	11.29	8.72	7.69			
1977	0.87	0.95	1.00	11.09	8.63	7.65			
1978	0.90	0.96	0.99	12.04	9.09	7.94			
1979	0.92	0.99	1.03	12.83	9.45	8.14	Not Available		
1980	0.90	1.00	1.08	12.70	9.35	8.06			
1981	0.92	1.02	1.11	13.67	9.67	8.14			
1982	1.01	1.10	1.17	14.71	10.32	8.65	2.90	2.37	1.98
1983	1.12	1.19	1.24	15.31	11.05	9.44	3.44	2.66	2.13
1984	1.23	1.24	1.24	16.59	12.13	10.44	3.61	2.66	2.09
1985	1.53	1.42	1.37	19.36	13.73	11.64	3.21	2.56	2.19
1986	1.83	1.64	1.54	22.43	15.86	13.39	3.47	2.73	2.33
1987	4.53	2.71	1.81	65.51	27.37	15.95	5.71	3.60	2.56
1988	3.89	2.41	1.74	46.99	23.65	15.73	4.82	3.04	2.24
AVERAGE: 1976-86	1.10	1.14	1.17	14.73	10.73	9.20	3.33	2.60	2.14
AVERAGE: 1987-88	4.21	2.56	1.78	56.25	25.51	15.84	5.26	3.32	2.40

Treatment of loan loss reserves as capital in
selected major industrial countries

The size of loan loss reserves and the treatment of the reserves as regulatory capital varies widely among foreign countries. A brief summary of the tax and bank regulatory treatment of loan loss provisions and reserves by six countries is provided below:

Canada: Canadian banks maintain three different types of reserves. "Specific reserves" are maintained against losses attributable to individual assets. Reserves are also maintained against loans extended to countries that have restructured their external obligations. Currently, banks must maintain a minimum reserve equal to 40 percent of outstanding exposure to a group of 38 rescheduling countries. The maximum permissible reserve level is 45 percent. "General reserves" are held against doubtful assets. These reserves may be held against pools of assets, and some flexibility is allowed banks in determining doubtful assets. Specific reserves and the reserves established against loans to heavily indebted countries pursuant to the Superintendent's mandated list of countries are tax-deductible. In the case of the latter reserves, the provisions are deductible up to 45 percent of outstanding exposure. Reserves are not considered a part of regulatory capital.

France: French banks may maintain a reserve against long- and medium-term credits, not to exceed 5 percent of the total relevant credits. The annual provision to the reserve may not exceed 5 percent of net profit before taxes. The provisions to the reserve are deductible for tax purposes, provided they are taken against specific assets. Reserves are generally considered to be part of regulatory capital.

Germany: German banks maintain several types of reserves. General loan loss reserves are required by supervisory authorities and are tax-deductible. These reserves consist of 0.1 percent of all loans secured by mortgages, 0.505 percent of long-term loans, guarantees and letters of credit, and 1.05 percent of unsecured short- and medium-term loans. The percentages are established by the supervisory authorities. "Specific reserves" are maintained at the discretion of bank management, based upon an assessment of individual risk factors. Increases to these reserves are also tax-deductible. Country-risk reserves are maintained subject to rules similar to those applied to specific reserves. Loan loss reserves are not included in regulatory capital.

Japan: General reserves are included in capital. Loan loss provisions are tax-deductible provided they do not exceed either: (1) a defined statutory percentage (0.3 percent); or (2) the "actual" percentage of the net outstanding loans and receivables charged-off during the period.

Switzerland: Provisions to general reserves are deductible for tax purposes provided they are also reported in

the bank's financial statements. General reserves formed in accordance with legal requirements are included in capital, provided they are set aside in special accounts and designated as equity.

United Kingdom: Banks maintain specific reserves against individual assets. Such provisions are made as a result of detailed reviews of individual loans. General reserves may also be established to cover potential losses within existing portfolios that have not yet been specifically identified. Provisions to specific reserves are tax-deductible; those to the general reserve are not. Additionally, the Bank of England periodically reviews the appropriate level of reserves to be held against foreign loans with individual banks. General loan loss reserves are part of regulatory capital, while specific reserves are not.