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Volume 2

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INTERPRET FINANCIAL STATEMENTS

Chris J. Bartrop
Diana McNaughton

World Bank
Washington, D.C.

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Banking Institutions in Developing Markets

Volume 2

Interpreting Financial Statements

*Chris J. Barltrop
Diana McNaughton*

*The World Bank
Washington, D.C.*

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Chris J. Barltrop is principal of Barltrop Associates, Oakton, Va. At the time of writing, he was a consultant to the World Bank. Diana McNaughton is the lead banking specialist in the Financial Policy and Systems Division of the World Bank's Country Economics Department.

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Foreword

The decade of the 1980s saw major macroeconomic policy changes in the developing countries of Africa, Asia, and Latin America. Import liberalization, price reform, greater fiscal discipline, deregulation, and privatization were widely adopted. Policy reforms reached the financial sector as well and included interest rate liberalization, reduction of directed and subsidized credit, removal of bank-by-bank credit ceilings, liberalization of market entry for banks, reduced preferences for state-owned banks, privatization of state banks, and legal and regulatory changes.

The decade of the 1990s holds a new challenge. Policy reforms in the financial sector can be sustained only through concerted new efforts to strengthen the institutional framework in which banks operate and to develop the necessary know-how and human capital. The results of recent studies underline this point: countries with strong institutions are the most successful in liberalizing their financial markets.

That is the context for these two volumes of *Banking Institutions in Developing Markets*. Both are intended for bankers as well as for policymakers

concerned with the governance and efficiency of the financial sector and its banking institutions. They answer the following questions: What is needed to run a sound and efficient bank in a liberalized financial market? What do banks' financial statements reflect, and how can they best be analyzed?

The essays in these two volumes were written by bankers with experience in both industrial and developing countries. They set out international best practices—practices that, because of the increasing globalization of international financial markets, are becoming the accepted standard everywhere.

These materials have already been used in a number of World Bank-sponsored training programs for bankers and bank supervisors. Training and educational institutions in Czechoslovakia, Poland, and Russia have undertaken translations of part or all of the materials.

We hope that *Banking Institutions in Developing Markets* will prove to be a valuable source of guidance in the development of banking institutions and bankers.

Nancy Birdsall
Director
Country Economics Department

Preface

Banks in developing markets face unprecedented challenges and opportunities. The 1980s witnessed political, economic, and policy changes that have dramatically altered the context for banking. The transition to market economies in Eastern Europe and the former USSR; financial liberalization in Asia, Latin America, and Africa; the near-global confrontation with financial distress—all demand substantial strengthening of banking institutions.

The two-volume *Banking Institutions in Developing Markets* was written with the objective of providing an understanding of the fundamentals of good bank management. It is intended as a reference guide for those concerned with strengthening and managing banks: bankers, bank supervisors, creditors, board members, financial policymakers, and World Bank staff.

Volume 1, *Building Strong Management and Responding to Change*, is based on the contributions of banking practitioners with broad international experience. They describe banking principles and practices rather than financial theories or models. The volume was undertaken in order to bring together in one place a description of the basic policies, procedures, and functions essential to sound, efficient, and competitive banking. The middle chapters and the appendixes are each devoted to a particular banking function. But banking functions do not operate in isolation; context influences bank efficiency. Therefore, the first chapter raises the issues of bank ownership, autonomy, governance, and the role of the board of directors. And the last chapter proposes tested methods of successful institutional development.

Volume 2, *Interpreting Financial Statements*, is designed to give readers an understanding of the contents of financial statements. It provides a peek

behind the numbers, explains some basic analytical techniques, and discusses the relevance of financial ratios. Despite the increasing globalization of financial markets, differences in banking practices persist and are reflected in banks' financial statements. The volume highlights these differences, particularly in banking systems influenced by a British or French legacy.

In addition to the text of contributing authors, numerous banking professionals and World Bank staff members have provided advice, support, and guidance. They include Nancy Barry (President, Women's World Banking), Deborah Drake (Acción Internacional), William Haworth (Booz-Allen & Hamilton), Charles Hoffman (American Bankers Association), Janet Schmidt (Nations Bank), and George Sharp and George Werner (Citicorp Institute of Global Finance). From the World Bank, three managers, Alan Gelb, Millard Long, and Andrew Sheng, provided invaluable oversight and insight during the course of the project. I would also like to thank William Diamond, Ron Dietz, Gregg Forte, Susan Hart, Fiona Mackintosh, Dennis de Munnick, Vince Polizatto, and Shamsheer Singh. Anonymous reviewers provided helpful comments. Staff of Booz-Allen & Hamilton and KPMG Peat Marwick supported the effort with suggestions and material. Meta de Coquereaumont, Tom Good, and Vince McCullough provided editorial assistance; Karin Waelti provided word processing support throughout the many drafts; and Kim Bieler designed the layout and desktopped the two volumes.

A final note of deep appreciation for the encouragement and understanding provided by my husband Silvio Capoluongo and my son Matteo.

Diana McNaughton

1. Introduction

Purpose of the Guide

This guide provides a framework for analyzing the financial condition and performance of financial institutions. Banking fundamentals have not changed much since the Medici. These involve accepting funds from those with surplus funds (depositors) and lending them to those with the ability to use additional funds for productive purposes (borrowers). Borrowers must be able to use the funds to create products or services that generate adequate income to repay the principal plus a usage fee (interest, mark-up) at a rate high enough to provide the bank with interest differential income. This income should be sufficient to allow the bank to:

- Pay a reasonable portion of the value of this usage to depositors, thus encouraging them to continue depositing funds with the bank.
- Provide the shareholders with a return on their investment sufficient to encourage them to provide the equity cushion needed to protect depositors against the impact of economic adversity or inadequate management.
- Cover the bank's operating expenses, including paying suppliers and compensating staff sufficiently to allow the bank to attract competent personnel.
- Reconstitute its equity base to offset any impairment in the value of the bank's asset base resulting from the failure of some borrowers to repay amounts due.
- Generate the equity needed to maintain the proportionate size of the equity cushion in the face of inflation and institutional growth.
- Provide investors with long-term growth in the value of their stock.

Within each multi-bank market, some banks will reach these goals more efficiently than others. To compete effectively, a bank must be a "low cost" provider of quality services. If a bank cannot compete on cost control and service quality, it is

unlikely to survive for long in a competitive environment. An understanding of a bank's relative performance compared to the market or over a time series is thus more useful than analysis of individual financial statements.

The principal objectives of analysis are to determine the sources, quality, and sustainability of bank earnings, the sufficiency of liquidity, and the adequacy of capital. The analysis of earnings allows us to assess management efficiency and thus the ability of the bank to successfully compete in its market, as well as to assess the effects of macro-financial policies on banking institutions. Various ratios are used as indicators of profitability, liquidity, and capital adequacy.

Absolute ratios can be misleading. Most analysts prefer comparative analysis of like banks within a national market. This involves segmenting the market by peer group, in which the predominant business focus may be more important than size, and analyzing each bank against other banks within that same peer group.¹ To do this, the source data must be understood and converted into a structured format that includes all key elements needed for the analysis to create a sound, consistent comparison base. The data content and format suggested in this guide in annexes 1-3 closely follow one of the most recently developed regulatory reporting formats² and should provide well rounded data in a usable format, while providing a checklist for source data from annual reports or different regulatory reporting systems.

Financial analysis of a banking institution is particularly challenging because of uncertainties in the valuation of the loans that constitute a bank's principal assets. If loans are reflected at book value without adequate adjustment to reflect recoverability through appropriate loan loss provisions, then assets and capital are overstated and profitability is inflated. For example, if a bank's net income as a percentage of total assets is 1 percent, then any change in lending policy that results in a

1 percent increase in the percentage of loans made that are subsequently not recovered can wipe out profits. Because of the particular nature of banking, asset classification and provisioning standards together with interest accrual practices directly affect reported profits, capital adequacy, and the magnitude of net bank assets. Moreover, a country's legal framework and business environment affect loan recovery and therefore asset and collateral valuation. A good understanding of the country's accounting standards and practices as well as the effectiveness of banking supervision, financial discipline, and the judicial process is thus essential for bank analysis in any particular country.

Importance of Bank Earnings

Bank earnings provide internal capital formation, and they are needed to attract new investor capital, which is essential if the institution is to grow. They serve both as a demonstration of management's effectiveness and as a barometer of the effects of macrofinancial policies on banking institutions. Healthy profits are needed to absorb loan losses and to build adequate provisions. A consistent earnings performance builds public confidence in the bank. Many bankers believe that public confidence in their institution is their most valuable banking asset, since it allows them to minimize funding costs and provides access to the best borrowers. Thus consistently healthy earnings are essential to the sustainability and viability of banking institutions. In effect, sound bank earnings are the lubricant that allows the bank to continue functioning.

Importance of Liquidity

A very basic requirement of public confidence in the banking system is that the depositors should believe that they can have access to their funds whenever they need them. With this belief, they will be confident that they are incurring no risk in depositing their money in the bank. Thus depositors are just as legitimately interested in the bank's liquidity position as are regulators, bank managers, and independent analysts. In a relatively simple banking environment in which the banks predominantly take short-term deposits and make short-term loans and where there is little or no reallocation of resources between banks, liquidity can quite easily be measured by ratios such as those shown in box 1.1. In a more developed financial market, however, measuring liquidity is a lot more diffi-

Box 1.1 Simple Liquidity Ratio

$$\frac{(\text{Current assets} - \text{Current liabilities}) \times 100}{\text{Total assets}}$$

cult. The traditional measure shown in table 1.1 becomes a lagging indicator, since in a developed market a bank can manipulate its liquidity position to the point that it only appears illiquid once it has run out of options to manipulate its balance sheet. By this time, the bank is likely to already be in very serious difficulty. Moreover, a strong bank can generally expect to borrow in the money market in case of need. A strong bank may thus prudently maintain a tighter liquidity position than can a weaker bank. A strong bank may even be able to ensure that all depositor claims are routinely met while it is technically illiquid,³ and by doing so maximize its income from maturity transformation. Using a static liquidity measure to judge the comparative strength of peer banks can be misleading.

A more useful approach to measuring liquidity develops a maturity profile by spreading major categories of assets and liabilities over time based on their anticipated remaining time to maturity. This requires substantial additional data collection, but provides much more useful information on a bank's liquidity profile over time and thus on any future liquidity constraints. An effective maturity profile is essential to the process of "asset and liability management" as commonly practiced in soundly managed banks in developed financial systems.

Importance of Capital Adequacy

A bank's capital forms the safety net or cushion that allows it to remain solvent and to continue operating despite unexpected macroeconomic or institutional difficulties. Capital also enforces discipline in private banks since they must subject themselves to market scrutiny in order to augment their capital base. Too low a level of capital as a percentage of total assets can subject the bank to a disproportionate risk of failure if adversity strikes. On the other hand, too high a capital base will reduce the gearing or leverage,⁴ thus requiring the bank to push up margins and fees in order to generate a fair return to investors.⁵ Banks generally prefer a lower level of capital to maximize return on equity while regulatory agencies prefer

a higher level to protect market stability. The level of 8 percent of risk-weighted assets has been recommended by the Basle Committee on Banking Regulations and Supervisory Practices.

Simply put, a bank's capital is what is left over after liabilities are deducted from assets. Clearly, a major portion of the analysis of a banking institution involves evaluating the quality of assets and the adequacy of reserves, since any overvaluation of assets or inadequacy in loan loss reserves will overstate capital (box 1.2).

Box 1.2 Capital Adequacy Ratio

$$\frac{\text{Risk-Weighted Assets} \times 100}{\text{Adjusted Capital}}$$

Importance of the Environment

Each country has a different economic environment, different regulatory and legal environment, different commercial practices, different accounting standards, and different risk characteristics. Each bank has different objectives, management practices, and market strengths and weaknesses. Financial analysis *must* be done within the context of the particular country and economic environment. Properly understanding a banking institution requires at least an initial visit to get to know the institution and its management and to collect data, followed by financial analysis to confirm the impressions given by management and to identify trends within the bank and in comparison with its peers. Follow-up meetings with management can then help clarify any questions raised.

Notes

1. To take an industrial country example, the balance sheet structure of one of the big-three German banks is different from, and not directly comparable to, that of a Girozentrale or a major regional bank. Simi-

larly, comparing the data on a British clearing bank with a French nationalized bank is not very productive. In developing countries, comparing an industrial development bank, an agricultural bank, a nationalized commercial bank, and a private commercial bank will tell you that they are all different, but not necessarily whether one is stronger than another.

2. They correspond to the format developed with the Állami Bankfelügyelet (Hungarian State Banking Supervision), except that they reflect the author's usual recommendations by (a) listing precious metals under other assets rather than under cash, (b) listing loan loss reserves as contra-assets rather than liabilities, (c) breaking out accumulated depreciation from tangible assets, and (d) deducting unpaid capital from authorized capital to produce issued and outstanding capital, rather than listing unpaid capital as an asset. The deviations in Hungary were to ensure consistency with that country's general accounting framework and are still within the broad guidelines provided by the EC directives. Corresponding adjustments to risk weighting of assets and adjustments to capital ensure that the capital adequacy calculation provides uniform treatment.

3. For example, the regulatory supervisors may set an informal minimum floor to eight day liquidity of *negative* 10 percent of total assets, as is done in one developed economy that would probably prefer anonymity.

4. Gearing or leverage refers to the ratio of debt to equity in a company. In a non-banking enterprise, this gearing ratio is generally between 1:1 and 3:1, with a lower level considered financially sounder. In a banking institution, an 8 percent capital adequacy ratio (non-risk weighted) would produce a gearing ratio of 12.5:1, making financial institutions highly leveraged compared to non-financial institutions.

5. Return to investors means the compensation to the investor for the cost of funds and risk involved in providing capital to the bank. This compensation can be through dividends, capital gains when the stock is sold for more than it costs the investor, or a combination. Since the investor incurs a higher risk of loss than a depositor, and the investment in bank stock is long term (even if it changes hands through the stock market), the level of compensation should be higher than the long-term deposit rate by the amount of the risk and liquidity premia.

2. Financial Analysis

Sources of Bank Earnings

Interest Differential Income

The principal source of most banks' earnings is interest differential income, defined as interest income less interest expense. Interest differential income usually accounts for at least 70 percent of a bank's income. Net interest differential income divided by total average assets over the period during which the income was earned yields the net interest margin. The net interest margin is driven by the composition of the balance sheet and by the interest rates applicable to the individual asset and liability accounts.

Funding sources that bear low or even no interest, such as demand deposits or capital, have a disproportionate effect on the net interest margin. These sources provide funding at zero or at below-market interest rates and thus increase the net interest margin in proportion to the differential with market rates. Since this differential varies with changes in market interest rates, banks that rely on such sources to fund variable rate assets are vulnerable to income swings. While these sources can substantially improve bank earnings if carefully managed through a process of asset/liability management, there are often substantial non-interest expenses involved in mobilizing them, such as those associated with branch banking. Similarly, non-earning assets, such as loans on which interest is not being received or accrued, can significantly reduce the net interest margin. Unfortunately for the bank analyst, effective rules governing interest accrual are not followed in many countries, with the result that unearned interest inflates income statements and reported capital, making the task of ascertaining the true financial performance and condition of banks difficult if not impossible. This key issue is discussed in chapters 2, 5 and 6.

Fee Income

Increasing competition between banks and changes in the disclosure requirements have forced banks to reduce their lending rates.¹ This has led to an unbundling of non-interest differential services.² In addition, increased regulatory emphasis on capital adequacy requirements related to the size of assets has encouraged banks to emphasize fee-based products and services and on/off-balance-sheet credit substitutes in an effort to expand income producing business without increasing risk assets so as to avoid the need for additional capital. Such fee income can include loan related fees, such as to cover the cost of the financial analysis or to secure a loan commitment, that are effectively equivalent to interest, and non-interest-related fees such as for maintaining a checking account, providing financial counseling, or for trade-related documentary services.

Operating Expenses

Generating income incurs operating expenses, including personnel costs (salaries and benefits), occupancy expenses (rents, utilities, insurance) depreciation and amortization of fixed assets, and expenditures on advertising and other service fees. Personnel costs usually predominate.

Banks in developing countries are generally presumed to be inefficient. Surprisingly, when their ratios are compared to those of banks in industrialized countries, operating expenses in many of these institutions are not particularly high. Both of these statements require further examination. Most banks in developing countries use limited technology and avoid investing in the facilities and staff required to provide the quality services needed to compete in the financial market. Transactions and record keeping tend to be done manually, and multiple reporting requirements, particularly on

directed lending, require extensive manual processing. Because this is such a labor intensive operation, staff numbers tend to be high. However, since bank salaries are often low and facilities Spartan, particularly in state owned banks, operating expenses may be quite low. Low salaries, in turn, directly influence employee motivation and the caliber of staff the bank may be able to attract and retain.

While banks may have excess staff in clerical functions, they may at the same time have too few people allocated to essential functions such as risk management and borrower supervision. Moreover, many banks in developing countries do not incur significant expenditures in such areas as advertising, legal fees, and external audit as do banks in developed countries. As competition grows in developing financial markets, this is likely to change.

An understanding of the structure of a bank's operating expenses is essential to evaluate the level of a bank's operating expenses, the allocation of its staff resources, and the nature of the business in which it is engaged.³ For example, if a bank's business emphasizes fee-based services, such as letters of credit and foreign exchange advice, operating expenses as a percentage of earning assets will probably be quite high when compared with a bank engaged primarily in wholesale lending to large borrowers.

Why Financial Performance Ratios?

Reading a bank's financial statements can give some understanding of what the bank does, what the numbers in the financial statements indicate, and, to some extent, how they have been manipulated. But how does the analyst know when to be concerned with the bank's financial condition? The absolute numbers are most likely to yield immediate insight only in extreme cases; for example if the bank is showing negative equity, then it is a pretty good bet that it is insolvent, and thus is in rather deep financial difficulty.

On a less drastic scale, an experienced analyst can look at the composition of the balance sheet or the profit and loss statement (and the related composition and performance ratios) and conclude either that there are no obvious disparities or that the relationship between some numbers looks "fishy" and bears closer analysis and discussion with management. The most instructive data to look at are the bank's comparative performance against like banks in the same market and trend

lines in its own data over a time series. The best way to bring out comparative performance is to reduce the numbers down to ratios that allow direct comparison between peer institutions in the same market. This chapter will explore this comparative approach by looking at some key ratios that indicate the underlying level of performance and health of the bank.

Here we provide an overview of the most frequently used ratios. These ratios require a good understanding of the balance sheet and the components of the statement of profit and loss, which are dealt with in detail in chapters 4 and 5.

Key Performance Indicators

The number of ratios that may be used when analyzing a bank's financial performance is limited only by the number of income statement and balance sheet accounts. Analysts, regulators, bank managers, and investors all have their favorites with which to illustrate specific aspects of bank performance. Table 2.1 presents some of the most common financial-performance ratios, each of which is explained below. The numbers provided are indicative of what would be considered good performance for a medium size regional bank in the U.S., where inflation has been low. While these ratios provide annualized percentages, significant trend lines may appear within the year, so internal management and regulatory supervisors generally calculate ratios at least quarterly or even monthly. Within-year ratios may be distorted by seasonal fluctuations, particularly with agricultural

Table 2.1 Key Performance Ratios

<i>Ratio</i>	<i>Percent</i>
Return on assets	1.00
Return on equity capital	15.00
Net spread	1.25
Net interest margin	4.50
Fee income	1.00
Net operating margin	6.50
<i>Administrative expenses (% total assets)</i>	
Staff expense	2.00
Other operating expenses	1.50
Total operating expenses	3.50
Loan loss provisions expense	.50
Net income before tax	2.00

Source: The World Bank.

development banks involved in seasonal crop finance or by accruals that may only be made annually or semiannually, so multiyear time series analysis that allows key performance trends to be separated from seasonal fluctuations is most useful.

Bank performance ratios are affected by the market conditions in which a bank operates, including macrofinancial policies, prudential regulation and accounting standards, competition, and business practices. Thus there are no universal normative standards for what constitutes acceptable earnings performance for a banking institution. Ratio analysis can be complicated by changes in the economic cycle and market interest rates. In a market economy, a bank's funding costs will normally lead lending costs. This means that as market liquidity tightens, generally in response to central bank efforts to slow inflation, deposit rates will rise, causing the bank's cost of funds to rise. As profitability is squeezed, the banks will respond by raising lending rates, eventually re-establishing the pre-cycle interest margin. As rates decline in response to easier liquidity in the market, deposit rates will decline first, with lending rates again following once the downward trend is firmly established. Bank interest differential earnings therefore tend to be squeezed during a rising rate environment, and strengthened during a declining rate environment.

Measures of Profitability

The two most important measures of bank profitability are return on assets and return on equity. A number of additional ratios are used to extend the analysis to cover measures of efficiency, staff productivity, spread, non-interest income, and the cost of intermediation.⁴ These ratios are described below.

RETURN ON ASSETS (%).

Calculation:
$$\frac{\text{Net income after tax} \times 100}{\text{Average total assets}}$$

Significance: Relates operating profits to total resources under management. This ratio is considered by many to be the best single ratio for evaluating the performance of management.

Ideally, the denominator would be average daily outstandings. However, in most countries this figure is not available. Other averages, such as the average of month end or quarter end, are usually used as substitutes.

RETURN ON EQUITY (%).

Calculation:
$$\frac{\text{Net income after tax} \times 100}{\text{Average equity capital}}$$

Significance: Measures the return on shareholder's equity.

Here too, when possible, it is desirable to perform the calculation using an average denominator.

Measures of Operating Efficiency

There is no universally accepted definition of these ratios. The terms "spread," "net interest margin," and "cost of intermediation" are referred to somewhat interchangeably, especially outside the narrow circles of bank analysts. For the purposes of this guide, we will attempt to establish precise definitions and methods for calculating the ratios using terminology that has general acceptance.

NET SPREAD (%).

Calculation:
$$\frac{\text{Interest earned} \times 100}{\text{Loans}} - \frac{\text{Interest paid} \times 100}{\text{Interest-bearing deposits}}$$

Significance: This ratio covers only those assets and liabilities that have an interest rate attached to them. Thus, it excludes the impact of non-interest-bearing demand deposits, capital, and non-remunerated reserve requirements on net interest earned and thus on bank profits. This is helpful in that it isolates the effect of interest rates on bank profits and thereby enables a better understanding of the sources of bank profitability and consequently of vulnerability of bank earnings.

NET INTEREST MARGIN (%).

Calculation:
$$\frac{\text{Interest income} - \text{Interest expense} \times 100}{\text{Average total assets}}$$

Significance: This ratio identifies the core earnings capacity of the bank—its interest differential income as a percentage of average total assets.

An alternative calculation prescribes earning assets as the denominator based on the presumption that the interest margin applies to earning assets engaged in providing interest income. However, both non-earning assets and non-interest-

bearing liabilities have a powerful impact on the net interest margin. This is because non-earning assets are a drag on income, particularly if they are financed with interest-bearing liabilities, while non-interest-bearing deposits boost earnings, particularly if they are financing high interest-bearing assets.

OTHER OPERATING INCOME TO TOTAL ASSETS (%).

$$\text{Calculation: } \frac{\text{Other operating income}}{\text{Average total assets}} \times 100$$

Significance: This ratio shows the dependence on "non-traditional" income. Growth in this ratio can indicate a healthy diversification into fee-based financial services or an unhealthy reaching for speculative profits to make up for deficiencies in the bank's core interest differential income.

NET OPERATING INCOME TO TOTAL ASSETS (%).

$$\text{Calculation: } \frac{\text{Net interest income} + \text{Other operating income}}{\text{Average total assets}} \times 100$$

Significance: This ratio differs from the return on assets ratio by the amount of non-interest operating expenses, taxes paid, and any extraordinary income or loss.

NET OPERATING (OR INTERMEDIATION) MARGIN (%).

$$\text{Calculation: } \frac{\text{Yield on earning assets} + \text{Related fees}}{\text{All financial assets}} \times 100 - \frac{\text{Interest expense}}{\text{All funding liabilities}} \times 100$$

Significance: The intermediation margin can be defined as the differential between the cost of funds and the yield on earning assets plus related fee income. The differential quantifies the cost extracted by the banking system for intermediating between the providers and the users of funds.

INTERMEDIATION COSTS. A more useful measure for understanding the efficiency of a bank comes from separating the non-interest expense into its component parts. This is done by measuring each of the non-interest expenses as a percentage of total average assets. These typically consist of:

- Staff expense
- Personnel, including fringe benefits

- Other operating expense
- Occupancy
- Operating taxes and licenses
- Depreciation and amortization
- Other operating costs
- Loan loss provision expense
- Provisions less recoveries
- Other costs
- Income taxes
- Capital formation (profits).

Profits, while not technically a cost, may be translated into a cost to borrowers, thus a cost of intermediation, since profits are required in order to remunerate shareholders as well as to augment bank capital. The total expressed as a percentage of total average assets forms a measure of the bank's efficiency that is directly comparable to peer institutions in the same market, while differences in the relative size allow comparisons of cost structure.

Measures of Staffing Efficiency

Since staffing generally represents the major component of a bank's non-interest costs, staff productivity, as measured either against staff expense or number of staff, can provide insight into a bank's efficiency. Staff productivity should be viewed with caution, however, since current-period savings through excessive restrictions on salary levels can lead to a decline in the quality and motivation of the staff, thus actually reducing the efficiency of the institution over the longer term.

NET INCOME PER STAFF.

$$\text{Calculation: } \frac{\text{Net income after tax}}{\text{Total staff count}}$$

Significance: Measures the average income generated by each staff member. Note that this ratio will be significantly different for a wholesale bank with relatively few but highly paid staff compared to a retail bank with a large branch network and many low paid clerical staff.

NET INCOME TO STAFF EXPENSE.

$$\text{Calculation: } \frac{\text{Net income after tax}}{\text{Staff expense}}$$

Significance: Measures return on investment in staffing costs. This ratio is probably a better measure than net income per staff since it enables in-

stitutions of a different type to be compared to some degree. It looks at the net effect of staffing decisions, regardless of whether these emphasize low cost, low expertise clerical staff, or high cost, high tech professionals.

Sources of Distortions

Taxation of Financial Intermediation

These ratios represent the best way to compare the performance of institutions in a financial system. However, they are all subject to a number of distortions, including taxation of financial intermediation.⁵ Hidden taxes can take many forms: interest rate and credit ceilings that favor specific economic sectors, reserve requirements, obligatory investments in government securities, or paper issued by specialized institutions at below market rates of interest. All impair profits, causing the banks to offset this loss by raising charges on non-preferential clients, effectively causing cross subsidization and reducing the efficiency of the reallocation of financial resources within the market.

Cross Subsidization

Some banks have developed elaborate pricing and costing systems according to categories of business and products to ensure that each product or service is self supporting. Even so, some cross subsidization is unavoidable, since few banks are completely successful in pricing their products and services to achieve equal risk adjusted returns on all business segments. In countries with a high incidence of taxation on financial intermediation, cross subsidization may indeed be quite high to the extent of severely penalizing private sector borrowers whose high interest rates on loans pay for the depressed rates paid by government or preferential borrowers.

Hidden Gains and Losses

LOAN LOSS PROVISIONS. Inadequate loan loss provisions are a major cause of distortions. The extent of loan loss provision requirements is always somewhat subjective even in countries with sound guidelines for classifying assets and for providing for impairments to value of the loan portfolio. This subjectivity seems to increase as the core earnings performance deteriorates, so the lower a bank's reported earnings, the less likely are the reported earnings to reflect the bank's true performance. In

many countries, consistency of earnings is viewed as being more important than maximizing earnings, so banks will over-reserve during good years to set up a reserve that can be liquidated during a poor year to level reported earnings.

ACCRUAL OF INTEREST ON PAST-DUE LOANS. Financial statements should use appropriate accrual accounting of interest payable and receivable. Conservative statements will accrue all payables monthly and accrue receivables only when there is a reasonable prospect of receiving payment, while unsound banks may be tempted to account for payments made only when made on a cash basis but accrue all interest receivable, even if the related loans have become chronically past due and probably unrecoverable. An understanding of the bank's accrual practices is critical to the evaluation of its financial statements. A benchmark standard is non-accrual on any loan that is 90 days past due or more, with reversal of interest accrued during the 90 day period at the time the loan is placed on a non-accrual basis.

RECOGNITION OF CHANGES IN THE VALUE OF INVESTMENTS. In many countries, banks are allowed to make investments in non-financial enterprises. Not infrequently, these investments represent capital injections into troubled borrowers and may have little or no market value. The benchmark standard is to reflect investments at the lower of cost or market, and not to recognize appreciation in value until the investment is liquidated. (Hidden reserves and the impact of liquidating them is covered more fully in chapter 4.)

FOREIGN EXCHANGE GAINS OR LOSSES. In theory, a bank is an intermediary in the foreign exchange market and will establish controls to prevent imprudent open positions that could subject the bank to loss. In fact, prudent practice is not always followed, and gapped positions may expand as a bank attempts to defer recognition of a loss. Thus foreign exchange positions subject banking institutions to substantial financial risk. In addition, banks that have been funded by international loans, as is typically the case with agricultural and industrial development banks in developing countries, may have substantial unrecognized foreign exchange losses through depreciation of their own country's currency against the currencies of the foreign funding.

REVALUATION OF FIXED ASSETS. The bank's land and buildings represent a "store of value" in an inflationary environment, in that these facilities retain their intrinsic value despite rapid depreciation of the domestic currency. The book value as

reported on the balance sheet (and thus in capital) may shrink in comparison to the rest of the balance sheet, resulting in an understatement in real terms in the tangible assets and capital. Some countries prevent recognition of the appreciation in value of bank tangible assets unless this value is confirmed by sale of the asset, while others permit revaluation to a market value that may be difficult to verify.

UNDERREPORTING OF CONTINGENT LIABILITIES. In a soundly managed bank, guarantees issued on behalf of clients are treated with the same controls and concern for risk as loans. However, this may not be the case in weaker banks, and any deficiencies in the approval or recording process can result in hidden liabilities.

Analytical Approach

The essential role of a bank is to take in funds from people with surpluses (depositors) and place these funds with people who have productive projects (borrowers) that earn enough to repay the funds (principal) with an adequate increment (interest) to justify the transaction (pay back depositors, cover operating costs, and reward shareholders). The bank must persuade depositors to give up use of their funds through a combination of the value of security, ease of access, and interest. The bank lends these funds to borrowers who have the highest probability of being able to repay them.⁶ These borrowers want to pay the lowest possible rate of interest for their use of the funds, and they may have other sources of funds such as competing banks, the informal market, or friends and relatives. In the absence of government intervention in interest rates, both deposit and lending rates will tend to level out at increments below and above, respectively, an average market interest rate, which will reflect the relative supply and demand for financial assets within the market. This market rate should achieve two objectives: (a) provide an exchange of value (use of the funds against interest) and (b) maintain the value of the principal (protect against inflation), so in a normal market economy this market rate should be slightly positive in real terms, thus an increment above the inflation rate.

Individual banks in a competitive market have only a very limited individual influence on deposit or lending rates. Funding costs consist of three key components:

- *Direct interest costs*—Small, short-term deposits are generally cheaper than larger, longer-

term deposits due to the time value of stability and the increased risk that committing funds for a longer period of time entails.⁷

- *Operating expenses* involved in deposit generation, including branch operating costs, advertising, and management overhead.

- *Cost of the capital* needed to provide adequate protection to depositors.

In general, a bank can lower the interest component of its funding cost below that of other banks only by providing better services or greater convenience, both of which increase operating expenses. Alternatively, it can seek to lower the operating expense component of funding costs by bidding for wholesale deposits (thus reducing transaction processing costs), but by bidding up the rates to attract wholesale deposits from larger, more price-sensitive depositors, it increases the interest rate component of its funding cost. Similarly on the lending side, a bank cannot price its loans significantly above what other banks are willing to charge (unless it is willing to accept a higher risk factor), or it will lose its clients. This also may seem somewhat obvious.⁸ The cost of capital includes the dividends needed to compensate shareholders for the long-term use of their funds and for the higher risk of loss incurred as shareholders (as the last in line in case of bank failure) as compared to depositors, who often have formal or implicit government guarantees on their deposits. Minimum capital adequacy is increasingly set by regulatory authorities to prevent banks from excessively leveraging their equity at the expense of depositors' security. This leaves two areas in which banks can distinguish themselves from their peers: (a) sound risk management and (b) operating efficiency. In a competitive market, success for a bank means being a low cost provider of quality banking services.

Earnings Growth

The best evidence that a bank is viable is if it is able to sustain consistent growth of high-quality earnings. It does not follow, however, that the bank will continue to be viable in a changing regulatory, economic, or competitive environment. It is desirable for a bank to maintain earnings growth at a pace that yields a level of dividends satisfactory to shareholders while also reinforcing its capital so that it can maintain an acceptable capital to asset ratio. Normally, a bank that is expanding its market share substantially will from time to time require an infusion of new equity. In such cases,

stable earnings will contribute to making the bank attractive in the market. A bank whose income growth is substantially greater than that of banks in the same market should be closely examined to determine the sources of growth. Bank products and services are not sufficiently differentiated to justify significant divergences in financial performance within the same market.

Peer Bank Analysis

While there is a trend toward integrating the international financial markets that is producing a certain degree of convergence in banks' financial structure and performance, national banking practices and accounting standards continue to differ. The agreement of the Basle Committee on Banking Regulations and Supervisory Practices, which in July 1988 issued the "International Convergence of Capital Measurement and Capital Standards," reinforced the trend toward convergence. The issuance of an "Opinion on International Accounting Standards for Banking" and the statement entitled "The Audit of International Banks" issued by the International Federation of Accountants in February 1990 have further reinforced this trend. Nonetheless, differences in banking regulations, in the taxation of financial intermediation, in economic conditions, in bank size, and in lines of business exert a significant influence on the financial profile of banks. For these reasons, analysts prefer to assess banks within the context of their own "peer group," thus against banks that provide like products and services and operate within the same market.

Developing the Analysis

The key ratios demonstrated in the first part of this chapter are derived from the balance sheet and from the statement of profit and loss. The following paragraphs will review additional analysis techniques that look at the composition of these reports and will highlight the relationships among key elements.

Conversion of Source Data

This guide covers interpretation of the data collected and conversion into a standardized format for analysis. Each item on the bank's financial statement should be fitted into a category on the standardized spreadsheet, which can either be a preprinted form, a PC spreadsheet, or a database

system.⁹ While accounting standards vary and result in balance sheets that may look different, the information content and the areas that can be manipulated are generally similar, so this guide will seek to look through the details of the various accounting standards to identify what is being reported. The following chapters will seek to explain in a concise and readable manner what goes on behind the numbers.

This guide develops balance sheets with assets on the left and liabilities and capital on the right. Assets and liabilities are listed in order of decreasing liquidity—current assets and current liabilities appear first while longer-term assets and liabilities appear lower down in the presentation. The statements of profit and loss are "flow" statements that directly show operating performance, as opposed to the older style of all income less all expense still used in many countries.

Conversion to a standard analysis format is useful, since conflicting "standards" exist that make it harder for the analyst to spot trends and discrepancies. For example:

- British format balance sheets tend to invert the order of liquidity, placing the most permanent items at the top, starting with capital.
- French formats use an *Actif* on the left and a *Passif* on the right that covers both liabilities and capital, and thus blurs the distinction between creditors and shareholders.
- Other formats seen include current assets minus current liabilities to reach a net current assets, followed by longer-term assets less longer-term liabilities and equity, thus avoiding an actual balance sheet total. While the presentation may vary, the information content is generally equivalent and only requires some reorganizing to make it fit a common analytical format.
- Islamic banking differs from conventional banking practice insofar as the level of return to the lender depends on the return on borrowed funds achieved by the borrower. In practice, it is appropriate in the Islamic system for the borrower to benefit disproportionately from an enhanced return which results from his own efforts; so actual compensation to the lender may be the same as it would be under normal western banking practice.
- Socialist/centrally planned economies, such as in China, Viet Nam, and until recently Eastern Europe, use fund accounting, namely, an operating fund, a general fund, and a reserve fund. In such systems, the emphasis is on receiving an allocation of state resources that are to be used for

specific purposes, with separate accounting by purpose. The concept of fungibility of resources and of consolidated balance sheets and statements of profit and loss (as opposed to performance against plan) is not well developed, and collateral values tend to be based on the replacement cost, rather than on realizable market value.¹⁰

Balance Sheet Analysis

Annex 1 shows the balance sheet included in the monthly regulatory reporting system described in chapter 3. The assets, liabilities, and capital sections are reproduced in box 2.1. Note that categories on both sides of the balance sheet show the least stable assets and liabilities on top and are in order of decreasing volatility. Also note that this format concentrates on the type of asset or liability (sometimes referred to as "instrument"), with

only limited differentiation by maturity. Full maturity-gapping analysis requires information by remaining maturity, rather than by original maturity, and is best shown in the separate analysis described in chapter 6. An approach that is taken more often is to segment deposits into demand, time, and savings. Demand deposits are assumed to be transaction-related and thus fairly stable and not interest rate sensitive. Time deposits consist predominantly of interest-rate-sensitive "bought" corporate and high-net-worth individual deposits. Savings represent the fairly stable savings of the general public. The trend toward paying interest on demand deposits is blurring traditional boundaries between these types of accounts and their relative cost and stability. Loans and deposits are differentiated by more than just maturity, which in any case is misleading on the balance sheet since the maturities given in the balance

Box 2.1 Balance Sheet

I. Assets

Cash

Currency—domestic and Zone A notes and coin
Balances with the central bank, including mandatory reserves
Notes and coin from non-Zone A countries

Treasury bills and other bills eligible for refinancing with the central bank

Domestic treasury bills
Other bills and securities eligible for refinancing with the central bank
Government risk
Other risk, including trade bills and acceptances discounted

Loans and advances to credit institutions

Foreign treasury bills
Zone A countries
Other
Sight deposits
With unrelated domestic and Zone A credit institutions
With other foreign banks
Money market deposits of one year or less, including CDs and placements
With unrelated domestic and Zone A banks
With unrelated domestic financial institutions
With other foreign banks
Loans and advances to related credit institutions including deposits and placements
Other loans and advances to credit institutions
Debit items in course of collection

II. Liabilities and Capital

Amounts owed to credit institutions

Domestic central bank
Refinance (secured)
Unsecured, including overdrafts
Commercial banks
Repayable on demand
With agreed maturity dates or periods of notice
Other financial institutions
Repayable on demand
With agreed maturity dates or periods of notice
Borrowings from international financial agencies

Amounts owed to customers

Sight deposits including checking accounts but not non-checking savings accounts
Time deposits with agreed maturity dates
With original maturity of one year or less
With original maturity of over one year
Savings deposits excluding interest bearing checking accounts
Repayable on demand
With agreed periods of notice of one year or less
With agreed periods of notice of over one year
Other deposits including CDs and other non-negotiable debt instruments
With original maturity of one year or less
With original maturity of over one year

Bonds and other negotiable securities issued

Bonds
Other unsubordinated, unsecured debt securities

continued

Box 2.1 Balance Sheet (cont.)

I. Assets

Loans and advances to customers other than those reported in liabilities

Non-rediscountable bills and factoring
 Other short-term loans and advances with original maturity of one year or less
 Term loans with original maturity of over one year
 Mortgage loans that are fully secured by residential property
 Less loan losses reserves

Assets leased out under finance leases

Financial leasing assets
 Less accumulated depreciation

Bonds and other fixed interest marketable securities

Domestic government securities other than those reported in liabilities
 Issued by the central government and related public authorities
 Issued by local governments and related local authorities

Securities issued by others
 Own debt securities

Shares and other non-fixed interest (variable yield) securities

Ordinary trading position in securities
 Temporary holdings of securities undergoing placement
 Other variable-yield securities

Own shares

Participating interest and other financial investments

In other credit institutions
 In other business undertakings
 Other financial investments

Majority interests

In other credit institutions
 In other business undertakings

Intangible assets net of amortization

Tangible assets net of depreciation

Tangible assets used for banking business
 Land and buildings
 Technical equipment, machines, and vehicles
 Other furniture, fixtures, and fittings
 Construction in progress
 Less accumulated depreciation

Non-banking tangible assets (net)

Other assets

Items in suspense
 Other assets

Total assets

II. Liabilities and capital

Other liabilities

Interest payable
 Taxes payable
 Items in suspense (excluding internal accounts)
 Credit items in course of transmission
 Other liabilities

Accruals and deferred income

Unearned income, discounts, and premia
 Accrued expenses
 Bonuses and other benefits payable to staff relating to the prior year

Provisions

Provisions for other credit losses
 Provisions for interest not yet received
 Legal claims relating to the reporting period
 Other provisions

Subordinated liabilities

Due in five years or less
 Due in over five years

Minority interest

Dividends payable

Total liabilities

Primary capital

Paid up capital
 Subscribed capital
 Less subscribed capital not yet paid
 Capital reserve
 Share premium account
 Other
 Revenue reserve
 Undivided profit/(loss) from prior years
 Preliminary profit/(loss) from the previous year
 Less loss for the current year

Supplementary capital

General provisions
 Profit for the current year
 Other supplementary capital

Total capital

Total liabilities and capital

sheet for loans and deposits generally reflect the initial maturities rather than the remaining period to maturity. However, some reporting systems do not require such subsidiary reports and may compromise by showing assets and liabilities by remaining maturity, thus losing information on instrument and purpose.

Off-balance-sheet items—commitments made by the bank on behalf of clients that could force the bank to disburse funds (possibly creating a loan if its client does not have the cash) represent a credit risk to the institution, and are thus added to risk weighted assets for calculating capital adequacy. The common categories, based on the Basle Committee recommendations, are shown in box 2.2. Assets, liabilities, and capital and contingent liabilities are shown in annex 4.

COMPOSITION ANALYSIS. The percentage composition (each line item as a percent of total assets), which provides an insight into the changes in the composition of assets and liabilities over time, is displayed in annex 4. This allows comparisons with peer institutions. This format also highlights the banking activities that the bank is either not performing or is not adequately reporting.

RATIO ANALYSIS of the balance sheet is achieved by examining three of the key ratios:

- *Liquid asset ratio*—This ratio is a rather crude liquidity measure and is calculated by adding cash and cash equivalents plus interbank assets and then subtracting interbank liabilities and borrowings from the central bank. This can then be expressed as a percentage of total assets.
- *Loans to deposits ratio*—This ratio is defined as all normal risk assets (discounts, loans, and advances) to core deposits (including demand, time,

and savings deposits but excluding short-term money market or long-term borrowings). This measures the extent to which a bank is able to mobilize deposits from the public to support its lending operations, and the extent to which it is able to lend these deposits. A higher ratio has traditionally been associated with a greater element of risk, since this can indicate lower liquidity (and vulnerability to institutional lenders), adverse economic conditions, or the consequences of a deposit run-off. A low level may indicate inadequate lending opportunities or unwillingness to accept the available lending risks. The “appropriate” level varies by country, although 70-80 percent could represent a reasonable balance between liquidity (which argues for a low ratio) and earnings (which are typically better with a higher ratio). If the entire financial system shows levels in excess of 100 percent, then there may be structural problems in the industry, for example through central bank refinancing of trade or preferential lending. Loans that are unrecoverable should be covered by a corresponding contra-asset. This should take the form of a loan loss provision that has been deducted from past earnings and, thus, equity reserves. So it is important that the “loans” used in this ratio should be net of loan loss provisions.

- *Capital adequacy ratio*—This ratio expresses the “real” capital as a percentage of total risk weighted assets. Both capital and assets should be fairly stated with the appropriate loan loss provisions and intangibles having been deducted. This ratio indicates the margin of protection available to both depositors and creditors against unanticipated losses that may be experienced by the bank. Thus it indicates the bank’s resilience to economic difficulties. This ratio is viewed by bank regulators and credit analysts as one of the key indicators of a bank’s financial condition—the original guidelines are reproduced in annex 7. The full application of capital adequacy involves weighting each category of assets for risks, eliminating intangibles and receivables from related companies and intangibles from assets and capital, and adding contingent liabilities in risk weighted assets. The reporting format in annex 1 conforms to the Basle Agreement on calculating capital adequacy, and risk weighting worksheets are provided in annex 3.

A number of other ratios are used that may be useful in some situations, but their use may reach a point of diminishing returns. These are:

- *Earning assets to total assets ratio*—Consists of earning assets (interest bearing deposits, place-

Box 2.2 Off-Balance-Sheet

Contingent liabilities

Off-balance-sheet credit substitutes
 Medium-risk contingent liabilities
 Medium-/low-risk contingent liabilities
 Low-risk contingent liabilities
 Forward interest rate risk
 Maturing one year or less
 Maturing over one year
 Forward foreign exchange risk
 Maturing one year or less
 Maturing over one year

Future commitments

Repurchase obligations
 Other

Box 2.3 Balance Sheet Ratios

Net liquid assets
 Total assets
 Liquid asset ratio (%)

Loans and leases to customers
 Customer deposits
 Loan to deposit ratio (%)

Risk weighted assets
 Adjusted capital
 Capital adequacy ratio (%)

ments, loans, advances, and equity investments) divided by total assets. This ratio should indicate the extent to which management is putting its assets into productive use. However, some “non-productive” use is normal since, while plant and equipment may not directly generate income, they are essential to support the operations of the bank. In addition, reserve requirements may cause certain assets to be unavailable to the bank. This ratio does not measure the effectiveness with which the assets are being employed.

- *Loan loss reserves to total loans ratio*—This ratio provides useful insight into the quality of a bank’s loan portfolio and bad debt coverage in countries with rigorous requirements on loan classification and the adequacy of loan loss provisions. However, in many developing markets, this ratio is less useful than it might be due to a reluctance on the part of banks to write off unrecoverable loans, which inflates the ratio, and due to inadequate recognition by the bank or (more often) by the tax authorities of the impairment of assets, which depresses the ratio.¹¹

Each of these ratios can be calculated from individual balance sheets, since each is measured at a specific point in time corresponding to the balance sheet date. Banks that engage in seasonal business may show cyclical changes in these ratios, so comparison between peer institutions in the same month, over several years, or with yearly averages may be needed to isolate the underlying trends from the cyclical fluctuations. Some variances can be applied, for example, to add long-term subordinated debt to equity in determining capital adequacy, and the analyst must use some judgment on what is appropriate in each particular country. The sample provided calculates a number of variations on the first two ratios but ignores the second two as being of limited use in the country involved.

Trend lines based on consistency within the market and over time are vital.

Profit and Loss Analysis

Box 2.4 shows a statement of profit and loss that follows the flow concept, starting with interest differential and fee income, deducting operating expenses to produce net operating income, then covering non-operating income or expense, loan loss provisions, and taxes to yield net income. This is one of the two presentations recommended by the European Community directives, the other being the parallel format that shows income in one column and all expenses in the other, with the net profit or loss being the difference between the two columns. The flow presentation shown here is significantly more analytically useful. Annex 4 shows a sample analysis of a nationalized commercial bank.

COMPOSITION ANALYSIS is based on the percentage that each line item represents of the total, as demonstrated in annex 4. Changes in the relative importance of line items over time indicate changes in the activities of the bank. For example, increasing dependence on fee income may signal that there are problems with the core interest differential earnings of the bank and that management may be reaching for fee income through non-traditional services.

RATIO ANALYSIS moves beyond the pure composition analysis to relate income and expense to the appropriate balance sheet items, as explained on below.

IMPLICATIONS. A bank with a core earnings performance significantly below the average for its peer group is unlikely to be able to compete on equal footing. If the bank is government-owned, while it may not actually fail, it is likely to be a potential drain on the national budget. Low performance by a private bank may prompt the bank to try to increase its income by making higher risk loans or by providing fee based services that a reputable bank would avoid.¹² In addition, the bank might try to reduce its costs by exerting excessive control over staffing or by postponing necessary discretionary expenditures in such areas as training, automation, and loan loss provisions. It is also likely that management will try to get the most out of the failing institution—while still possible—by means of increased perks or connected lending. All of these activities are likely to lead to deepening trouble and, ultimately, failure for the bank.

To compete in a market economy and maintain

Box 2.4 Statement of Profit and Loss*Interest income*

Interest on loans

Liquid assets

Loans to credit institutions

Loans to customers

Marketable debt securities

Gains from market rate increases

Loan related fee income

Income on forward contracts

Other interest income

Interest expense

Amounts owed to credit institutions

Amounts owed to customers

Demand deposit accounts

Time deposits up to one year

Time deposits over one year

Savings accounts up to one year

Savings accounts over one year

CDs and deposit substitutes

Bonds and other debt securities

Other funding liabilities

*Net interest differential income**Other operating income*

Income from investments

Shares and variable yield securities

Participating interests

Affiliated undertakings

Service charges and fees

Income earned

Less expense incurred

Profit/(loss) from financial operations

Dealing in securities

Placement of securities

Trading gain/(loss) on foreign exchange

Other

Net lease income

Lease payments received

Less related depreciation

Other operating income

Rents received

Other

*Gross operating income/(loss)**Operating expenses*

Salaries and employee benefits

Salaries

Other benefits

Social security costs

Rents paid

Other occupancy

Taxes and licenses

Depreciation

Amortization of consolidation goodwill

Other administrative expenses

Other operating expenses

*Net operating income/(loss)**Loan loss provision expense*

Bad debt and provision expense

*Less recoveries**Write-down of investments**Income/(loss) before extraordinary items**Extraordinary gains/(losses)*

Extraordinary gains

Less extraordinary losses

*Net income/(loss) before tax**Income tax**Net income/(loss)*

Transfer to general reserves

Income/(loss) after reserves

Minority interest

Dividends declared

To/(from) undivided profit

quality service over the long term, a bank must be a low cost provider of services and yet be able to invest adequately in staff, plant, and equipment. This requires that a certain portion of income be used to support the service base. The profit and loss sections in annex 4 compares the composition of these operating expenses as a percentage of gross operating income. This is a useful way of showing how operating income supports the business, particularly in a stable environment and in comparison with similar banks. However, since these ratios are dependent on the level of the bank's overall profitability, a poor performer will always have disproportionately higher operating expense

ratios, so this analysis is of somewhat limited value except when comparing banks with equivalent overall performance characteristics.

A bank's major role is to take in funds, primarily through deposits and equity, and invest them in productive assets, resulting in interest differential income (unless the institution is a development, agricultural, or housing bank that has been funded with debt rather than deposits). In addition, a bank provides financial services on a fee basis, resulting in commission and fee income. To achieve this, the bank must invest resources (part of the gross profit generated) in staffing and support facilities. It requires sound management to

ensure that the optimum degree of expenditure is made. Bank managements in a competitive market are faced with a series of trade-offs, and their decisions can have a significant impact on the character and performance of their bank. For example:

CONTROLLING INTEREST MARGINS. A bank can hold down the operating expenses required to support a branch network by purchasing money wholesale, by seeking large, high-interest time deposits, or by borrowing on the money market. Alternatively, a bank can invest in the staffing and facilities necessary to mobilize lower-cost consumer savings. Branches of foreign banks and non-bank financial institutions (NBFIs) tend to focus on controlling operating expenses. Domestic commercial banks, on the other hand, will fund themselves through branch deposits that are more stable and have a lower direct interest cost but that incur higher operating costs to support the branch infrastructure. In principle, a domestic commercial bank should have a lower interest cost (as a percentage of total assets and of funding liabilities) but a correspondingly higher staffing and occupancy cost than a foreign bank or NBFIs. Clearly, a bank that has a higher funding cost than its competition without a commensurate reduction in operating expense is not going to be able to lend profitably at the same rates as the competition. Achieving a correspondingly higher rate of income would require it to increase its lending rate above market rates, generally possible only through lending at higher-than-normal credit risks. Interest income, expense and net interest income, and average lending and funding rates indicate how the bank is positioned vis-à-vis its competitors and, when time series comparisons can be made, how this relationship is changing over time.

MAXIMIZING NON-INTEREST INCOME improves bank earnings without increasing the size of the balance sheet. However, fee services are often labor- and skills-intensive, and so they increase operating expenses. It is thus quite normal for a bank that has higher than average fee income to have correspondingly higher than normal staffing costs. A commercial bank that has lower fee income compared to its total assets than its competitors will have difficulty keeping its return on assets and equity up to market standards. A sudden increase in fee income can be a signal that the bank is venturing into areas that other banks might avoid—such as guarantees, foreign exchange arbitrage, or other high risk activities—particularly in countries that have not adopted a risk-based capital adequacy standard.

CONTROLLING OPERATING EXPENSES. Operating expenses in a reasonably competitive market are generally quite stable. Staffing costs tend to be about the same among banks, due to the existence of either competitive labor market movements or standardized union of pay scales. Below-market salary expenses for a bank of a given size can indicate either particularly efficient staff management or a failure to make an adequate investment in the bank's main productive resource. This failure may be manifested either in depressed salary scales that ensure mediocre staff quality or in inadequate training facilities. Higher-than-market rates can indicate a loss of control over staffing costs or a willingness to pay for good people that represents a successful investment, which will be reflected in future earnings of the bank. Although the earnings per manager and earnings per staff ratios can provide insight into the productivity of the staff and the effectiveness of the bank's staffing policies, the reason for higher-than-market salary expenses is difficult to determine unless the analyst visits the bank. Similarly, low-occupancy expenses may reflect either a well-established bank that owns its own facilities or a lack of adequate maintenance, while higher-than-market occupancy expenses can indicate that the bank rents much of its office space. For example, if a bank were to realize capital gains on its office building by a sale and lease back, its interest cost and depreciation expense would decline, but its occupancy expense would increase (and its hidden reserves would decline). Clearly, variances against market standards in any category of data highlights the need for discussion with management to determine whether the variance is justifiable.

Performance Analysis

By far the most useful approach to analyzing a bank's performance is shown in the performance analysis section in annex 4 and box 2.5. The analysis takes either quarterly or annual profit and loss data, calculates the average of key balance sheet categories over the period covered by the profit and loss data,¹³ and calculates:

- Earnings performance through return on average assets and return on capital.
- Growth rates for key loans, deposits, capital and staff.
- Staff productivity measured by earnings per staff and return on the staff expense.
- Average interest rates earned and paid.
- Cost of intermediation.

Box 2.5 Performance Analysis (Annualized)

Earnings performance
Return on average assets
Return on capital
Nominal growth rates
Loans and leases
Customer deposits
Capital
Staff
Real growth rates
Consumer price index
Inflation rate
Loans and leases
Customer deposits
Capital
Staff productivity
Earnings /average staff (x 1000)
Return on staff expense
Nominal interest rates
Average rate earned
Liquid assets
Loans to credit institutions
Loans to customers
Marketable debt securities
Average rate paid
Amounts owed to credit institutions
Demand and time deposits
Savings deposits
Spread
Real interest rates
Average rate earned
Average rate paid
Intermediation cost (% assets)
Staffing expense
Occupancy expense
Taxes and licenses
Depreciation and amortization
Other administrative expenses
Loan loss provisions and write-downs
Income taxes
Capital formation
Total intermediation cost

This approach combines balance sheet and profit and loss data to produce key performance indicators (ratios) that are independent of the size of the bank, and are thus directly comparable over time and with other banks. Since the income and expenses are analyzed against the average assets and liabilities over the period of the statement of profit and loss, different length periods can be compared. Of course, this will be the case providing that the

institution is not subject to significant seasonal fluctuations, as would be the case with an agricultural bank. The example in annex 4 actually includes the full years ending on June 30, 1989 and 1990, the six month period ending on December 31, 1990 and the quarter ending March 31, 1991.

All management decisions and environmental constraints have an impact on the return on equity and return on assets ratios (defined above), which represent the two basic measurements of the bank's ability to generate the equity needed to support growth and fend off economic adversity.

RETURN ON EQUITY—measures the rate of return to investors and the potential for internal capital formation. In an inflationary environment, this ratio should be at least equivalent to the underlying inflation rate just for the bank to maintain its equity base in real terms, even assuming no dividends. A corresponding real growth in equity is required to support any real growth in business activity without capital adequacy being strained. The analyst should be aware, however, that a high return on equity may be inversely proportional to capital adequacy. An inadequately capitalized bank that is marginally profitable may show a higher return on equity than a soundly capitalized and soundly performing bank. Since any inadequacy in loan loss reserves overstates capital, this ratio can be significantly distorted if loan loss reserves do not consistently and fairly reflect the recoverability of the loan portfolio.

RETURN ON ASSETS—measures the net income generated from the employment of the total assets of the bank and is thus less subject to distortion than the return on equity ratio, since any inaccuracies in the loan loss provisions will have less of a relative impact on total assets than on the smaller capital figure. If reasonable accounting principles are consistently applied, a bank with a higher return on assets ratio is inherently sounder than one with a lower ratio. Variances of this ratio that rely on more restricted definitions of assets, such as earning assets (all loans, advances, investments, and interest-bearing deposits), can provide additional insights into the differences between banks or into changes over time.

RATE ANALYSIS. The analyst can gain further insight into the character of the bank's business and changes in the market over time through calculating the average rate earned on earning assets and the average rate paid on funding liabilities. This analysis complements the interest differential margin analysis by providing direct insight into the bank's funding cost and lending rates. Even if in-

terest accruals continue inappropriately or earning assets are overstated, time-series data may still indicate the direction of change within the bank and, if market practices are generally equivalent, can provide a comparison base. However, the funding rate is of limited value if it is distorted by the absorption of loan loss provisions. As mentioned earlier, bank performance ratios can be materially affected by changing economic cycles.

PRODUCTIVITY ANALYSIS measures the efficiency of one of the bank's three main resources—its staff, its reputation, and its funding liabilities—by calculating the net income earned per manager or staff member. Changes in this ratio over time directly reflect the bank's ability to manage this resource and to compete cost effectively with peer banks.

Cash Flow Analysis

Analysis of corporate borrowers typically includes a cash flow analysis that examines how the company generates and employs funds. This analysis is extremely valuable in an accounting environment where cash and non-cash items are clearly differentiated in that it highlights the sources of the cash needed to service debt. However, essentially every aspect of a bank's business involves the movement of cash, and changes in cash can be engineered simply by paying above-market interest or canceling credit lines to sound borrowers. Some countries require cash flow statements as part of the published financial statements, and others are moving towards greater interest in cash flow analysis for banks. The author uses cash flow as a key part of the analysis of non-financial corporations but has not found it as useful for banks. For banks, the author prefers to use changes in the composition of the balance sheet, in the key ratios, and in the maturity-gapping analysis (see chapter 6) to look at the level of maturity transformation risk the bank is willing to take and at how effectively its asset and liability management process is likely to ensure adequate future liquidity.

Summary

Clearly, bank analysis requires consistency in balance sheet and profit and loss presentation. Some banking systems allow banks to net loan loss provisions against interest income, thus depressing interest income and hiding loan loss provisions. In a stable financial environment, a sharp decline in interest differential income can signal increased

hidden loan loss provisions. This effect may not be visible in a market where deposit or lending rates fluctuate. Similarly, some banking authorities do not require consistency in reporting interbranch transactions, loan loss provisions, or revaluation reserves, all of which can distort the analysis. These factors underline the importance of understanding the accounting practices used and of converting the data the analyst receives into consistent, meaningful information. Analysis improves significantly if based on the average of monthly balance sheet data over a full year, since this method negates the impact of seasonal changes.

Conclusions

Now that we have gone through a review of the content of financial data and an analysis of a particular sample bank, what lessons can we draw?

OBJECTIVES. Even the best analysis leads to questions rather than answers. So the objective must be to develop a level of comfort with the bank that will determine whether the user of the analysis will take the risk of placing funds with the bank (or including it in a multilateral loan program) or whether it is a candidate for regulatory or technical assistance. Ratios that indicate a significant divergence from the peer comparison base and trend lines that point away from the peer average should be a cause for concern and the basis for discussions with management of the bank.

METHODOLOGY. Convert the source data into a consistent format and calculate key ratios. Then compare these ratios with those of similar banks to establish the relative condition and performance of the bank compared to its peers and, over time, see whether this is improving or deteriorating. This can be done by structuring the analysis so that differences "jump out" at the analyst, as shown here. The traditional approach focuses on a detailed analysis of each component of all the data available, is inordinately time consuming, and invariably the woods cannot be seen for the trees. The key, then, is to pick out factors that are material and to use these to gain an understanding of what the bank's management is doing.

UNIVERSAL STANDARDS. The "ideal" composition of the data and the meaning of each ratio will vary between markets and, within markets, between types of banks. Comparisons to such ideal standards can be misleading and counterproductive. Each indicator is useful only if the balance sheet and statement of profit and loss fairly reflect the value and earnings capacity of the bank. Accept-

able levels for each ratio depend on the legal, political, and financial environment in which the bank is operating. An environment that is not adequately protected from financial shocks requires a higher safety margin, thus a higher capital adequacy, which will depress the return on equity unless the return on assets is correspondingly bigger. A smaller bank that is more subject to risk concentrations is similarly likely to require a higher capital adequacy.

Peer Group Comparisons

Throughout this chapter, we have stressed the importance of making comparisons with similar banks in the same market—peer group comparisons. This approach assumes that banks that are better than the average are in reasonable condition, while the condition of banks that appear worse than average may be questionable. In other words, it assumes that the average for the peer group is acceptable—but this may not be the case. In many countries, entire peer groups or even the whole banking system may be insolvent, in which case the comparison is useful only to reveal which banks are in the *least* difficulty. Clearly, using peer group comparisons requires a general understanding of the banking environment, but it can nevertheless lead to a ranking of banks by comparative degree of risk.

A PRACTICAL EXAMPLE. New banking supervisors in a country that was just reactivating its bank supervision function initially estimated that about five of the country's approximately 70 banks and NBFIs were in trouble. At the same time, however, leading members of the banking community estimated that at least 17 were not viable and that there was a clear hierarchy of access to the money market. Analysis of the data from the central bank's statistical unit led to segregation of the banks and NBFIs into eight risk groups based on capital adequacy, loan to deposit ratios, dependence on deposits from state owned enterprises, profitability, and the related trend lines. As a result, 10 banks were classified as probably insolvent. Inspection of these—the first time for some—proved that the reported data were in fact optimistic and that these banks were not viable. The analysis also identified a further 17 banks as borderline. While the analysis did not provide a precise borderline between good and bad banks, it did enable a ranking by relative strength that enabled the regulatory authorities to set priorities in their efforts to clean up the financial system.

SPECIALIZED BANKS. The discussion so far has left out specialized banks such as agricultural, housing, and industrial development banks. In these cases, there is no valid comparison base, and it may not be possible to develop a sufficiently sound understanding of the bank's viability without conducting an in-depth analysis as would be used in a full budgeting and planning process. This kind of an analysis incorporates each significant category of asset, liability, income, and expense into a projection model that analyzes the past and uses this analysis and management's planning assumptions to project into the future.

Successful Financial Analysis

Chapters 4 and 5 include comments on accounting and business practices taken from many countries. A key ingredient of successful financial analysis is an understanding of the constraints that management faces and of the options (both environmental and resource) available. This requires that analysts mentally place themselves in the position of the management of the bank they are analyzing, and try to understand the particular problems that this management is most likely to be facing. The financial analysis then helps to confirm or deny the assumptions made. Such in-depth analysis is what differentiates a good credit analyst from a bad one. Such judgments are subjective and based on experience. Experienced analysts will not trust a numerical analysis unless they know the management of the bank and understand its business.

Financial Analysis and Bank Restructuring

It is essential to understand a bank's financial structure and the determinants of its earnings performance before a bank restructuring can be designed. Bank restructuring generally requires that non-performing assets be identified and stripped out, that the bank be recapitalized, that bank's balance sheets be reconfigured, and that the restructured bank be commercially viable. This objective may be met by swapping non-earning assets on the balance sheet with interest-bearing government bonds, which should be provided either directly by the government, in the case of a government owned bank, or through the national deposit insurance (or equivalent) institution where deposits are formally or implicitly guaranteed by the government. This indirectly recapitalizes the bank and provides an earnings stream. An alternative is to remove seriously impaired assets and then to re-

move liabilities in excess of the amount of assets removed, thereby recapitalizing the bank. This option is relevant when the bank's liabilities constitute loans from state agencies or foreign loans guaranteed by the state. Other issues involved in bank restructuring, such as purchase and assumption agreements, the write-down of shareholdings, and the replacement of management, are outside of the scope of this guide.

Notes

1. In the U.S., "truth in lending" legislation became effective about 1970. This required banks to disclose the true annualized interest rate applied to any loan to a private individual so as to avoid confusion with discount and rates applied to less than a year.

2. *Unbundling*—In which the practice of grouping services together under a single price has been reversed through separating out banking services and charging separately for them.

3. The effectiveness (or lack thereof) of management normally permeates a bank, just as it does a non-financial company. Visits to a bank branch and a walk through several floors at head office can give the experienced observer a "feel" for the institution and for whether it is operating with sound management practices.

4. *Spread*—The difference between the interest rate earned and the interest rate paid, expressed as a percentage.

5. For example, the Philippines had a 5 percent withholding tax on interest with only the overnight interbank market exempted. This effectively eliminated the term interbank market.

6. This may seem obvious but is a detail that seems to have been forgotten in many countries, particularly where government social goals are involved, which may result in policies that force the banks to lower their credit standards.

7. An exception may be if the market anticipates a significant decline in the inflation rate and in interest rates, which can result in an inverted yield curve where longer-term deposits may be cheaper than short-term deposits.

8. This implies that a financial institution that has impaired earnings through a high level of non-performing loans is unlikely to be able to "make it up in the volume" through above average earnings on other assets in competition with other institutions that are not trying to cross subsidize market segments—a concept that was not obvious to the U.S. government when it approved deregulation of the ailing U.S. thrift industry around 1980.

9. One has a choice of either using a standardized format that will include all "normal" data categories, and that will thus have some blanks for some institution types or countries, or modifying a spread sheet to fit the characteristics of the particular type or institution or national standard. The author uses this latter approach when working with individual countries, since it eliminates unnecessary lines and prevents consolidation of data categories that a particular banking system breaks out. Whichever approach is used, however, each analysis of any institution of a particular type within a particular country *must* be identical to ensure comparability.

10. Fungibility of resources means that cash received from different sources is still cash, and does not change its nature depending on its source, even though the intended use, price, and maturity may vary. An analogy would be to liken cash assets to a swimming pool, in which cash flows in from many sources and flows out to many uses (and back, after the use is completed) but the individual drops of water that form any outflow may have come from a mix of any of the inflows.

11. A bank's reluctance to write off unrecoverable loans is often due to a reluctance to set a precedent that would encourage defaults by other borrowers or to a fear of compromising the legal claim against the borrower—which is valid in countries where the bank's overdraft statement constitutes the evidence of debt rather than of a loan agreement and signed promissory note.

12. This was what alerted at least one of the major banks to the developing problems at the Herstatt bank in the early 1980s.

13. In a database system, this is done by reading the date and period type of the profit and loss record, then averaging balance sheet data for the previous four months for quarterly data or 13 months for annual data (the starting point is needed to obtain a true average, thus four rather than three months' data for a quarter).

3. Sources of Financial Data

Now that we have examined the objectives in analysis of a bank's financial statements, where do we get useful data, and what does it mean? Chapter 3 examines the sources of financial data while the succeeding chapters will examine what it means.

Ideal Data

Annexes 1 and 2 suggest an "ideal" regulatory reporting format that focuses on a monthly balance sheet and quarterly profit and loss plus supporting statements on the risk profile of the reporting institution. The level of detail and the extent of the information required was designed to provide sufficient information to ensure a sound understanding of the reporting bank's financial condition and performance and to accurately measure risk-weighted capital adequacy according to the Basle Agreement, while limiting reporting requirements to that information that was actually useful and could realistically be used.

This reporting format was developed for a central European bank supervision agency in cooperation with the World Bank, the IMF, and the Bank of England (it has been modified slightly to remove the name of the country). It was verified by Price Waterhouse GmbH for consistency with international accounting and banking practices, with the EC Directives, and with the recommendation of the Basle Committee on Banking Regulations and Supervisory Practices. It was also synchronized with the particular country's Banking and Accounting Acts and with the standard chart of accounts for banking institutions that was developed as part of ensuring a consistent baseline, thus ensuring a consistent national standard for presentation and terminology for internal accounting records, published financial statements, and regulatory reports at the group level, while allowing flexibility below the group level. This reporting system is backed by a computer data verification and analysis system that provides on-line

feedback to bank examiners on compliance with regulatory requirements and on developing trends and peer comparisons as part of their prudential early warning system.

This format has been used throughout this guide to provide structure and to demonstrate the principles involved. Annex 4 shows an analysis model that combines the profit and loss data with the relevant balance sheets to produce the ratio analysis demonstrated in this guide. Please note that annex 4 contains a few more fields than the corresponding annexes 1 and 2 since it allows, for example, for loan loss provisions to be shown as either contra-assets that reduce net loans outstanding or as liability reserves, and it includes capital substitutes for branches of foreign banks, which were not required in the actual regulatory reports.

Unfortunately, most bank analysts do not have access to such data other than for the financial institutions in major developed markets, where bank supervisory and stock market regulatory reports may provide even more detail. This chapter will review sources of financial data and examine some of the issues involved in evaluating the quality of these data.

Islamic Banking

Most banking systems use interest to compensate depositors and to price loans, resulting in interest differential income. The presentation of financial data and the related explanations in this guide assume an interest-based banking system. However, some countries have moved to a system based on compliance with the Sharia, or Islamic code, which prohibits *reba* (interest). In principle, the lender and borrower enter into a joint venture to employ the lender's funds in a commercial transaction that will produce either a profit or a loss, which the lender and borrower should share, based on their contribution to the transaction. Compensation for the value of funds provided must thus

be based on a sharing of the profit derived from their use, which in principle can only be calculated once the transaction financed by the funds has been completed. This approach, in principle not unlike venture capital financing, is difficult to implement in a modern economy, particularly for financing depreciable assets or for mortgage finance where no clear profit or loss may derive from the individual transaction.

The banking systems of countries that have adopted Islamic law have adapted to comply with the Sharia while operating a business in a world economy and while providing both depositors and borrowers with some stability in pricing funds. Some effective alternatives to interest are:

- Substituting profit-participation accounts for interest-bearing deposit accounts, where the contribution to a bank's profit of deposited funds is assumed to have a fixed value, while the contribution of management has a variable value. A more profitable bank can thus justify a proportionately larger share of its profit to itself than a less profitable, and thus less well managed institution, with the result that payments to owners of profit-participation accounts in a lower quality bank can be slightly higher than payments to account holders in safer banks, thus achieving essentially the same effective percentage payments to depositors as would have occurred under a non-Islamic system.

- Charging a non-time related flat fee for short term loans, regardless of their maturity. While a specific maturity may be set, no late interest exists, so a penalty fee may be applied if repayment is delayed.

- Participating in the profit of a borrower, taking a similar approach as to deposits: the contribution to the borrower's success by the bank's funds is assumed to have a fixed value, while that of the borrower depends on his management success.

The analyst must look through the mechanism to understand what is actually happening and what the impact is on the bank's earnings capacity and stability, which may even benefit from depositors' refusal of compensation.¹ A key question is loan recovery in case of non-payment. Since the Sharia requires a proportionate sharing of the loss, in theory a bank might be able to seize collateral only up to its proportionate share of the whole venture, rather than up to the full amount of the outstanding loan. A second issue is that depositors in a bank that shows a loss could in theory be expected to share in that loss through a proportionate write-down of their deposits, although what the practi-

cal application of that theory would do to public confidence in the banking system is another issue.²

Biases in Financial Data

The source of the financial statements has a significant impact on the frame of reference of any analysis, since these statements can be slanted according to the anticipated audience. Information provided by a bank sometimes fulfills contradictory roles, as follows:

The Bank's Objectives

A bank's major asset is public confidence. Disclosure of even minor down-turns in performance can be perceived by the public as a sign of weakness. Such a sign of weakness may weaken public confidence in the bank and make it more difficult for the bank to compete in its market. A loss of confidence can cause depositors to withdraw funds, thus tightening the bank's liquidity position, or to demand a risk premium, thus increasing the bank's funding costs. It can also encourage the best borrowers to protect their sources of funding by diversifying their banks, thus reducing the bank's most reliable earnings base since the best clients are the most able to diversify their funding sources. Financial disclosure thus represents a risk to the bank. Management policies to protect public confidence in the bank by disclosing minimal information are common, as are efforts to present information as positively as possible. Accurate disclosure to stockholders (particularly in countries where shareholders' rights are not well developed) and to analysis intent on finding problems is often not a prime objective.

Public disclosure of balance sheet data thus may be limited to broad categories that can hide significant changes within these categories. Total assets may be manipulated to improve earnings performance and capital adequacy based on understating assets or to inflate size in markets where competitive size is considered more important than the underlying (or undisclosed) earnings performance. Profitability can also be manipulated or disguised.³ Where smooth growth is perceived to be more important to the bank's image of stability and reliability than accurate data, the temptation to engage in year-end window dressing of the balance sheet through short-term transactions that are reversed immediately after year-end, or through manipulation of the timing of recognition

of income to smooth the bank's apparent performance, can be irresistible if strong regulatory constraints are not in effect. Published financial statements thus rarely disclose enough data to identify a developing problem until the problem has become too unmanageable to hide.⁴ Increased public disclosure of financial information has generally required regulatory stimulus from bank or securities regulatory authorities, generally introduced in response to individual bank management's abuse of public trust. The published financial statements of a bank should be treated with considerable skepticism, and while they may raise questions, they rarely provide adequate answers.

Regulator's Objectives

A bank regulatory agency has two primary objectives in its financial information gathering activities.

NATIONAL STATISTICS. The traditional role has been to gather data for the central bank's monthly reports of national statistics. These statistics follow a standard IMF- and UN-inspired format that focuses on monetary aggregates and distribution of financial activity between key economic sectors. This role has often grown to include the monitoring of compliance with regulatory requirements, particularly with any credit and interest rate controls and with capital adequacy and liquidity requirements that form part of the country's macroeconomic direct control mechanism. While these data are collected on a bank-by-bank basis, record-keeping is often by month rather than by bank, with little trend analysis of individual banks. In many countries, inadequate guidelines on the valuation of assets and liabilities, excessive discretion in the grouping and reporting of categories of data (in the absence of a standardized chart of accounts), and a lack of verification of the accuracy of bank reports by the inspection process allow manipulation of these data.⁵ Such statistical data often lack meaningful information on profitability. While the data content of the more traditional regulatory reporting process may well identify banks in financial difficulty, this is generally only once the problems have become too serious to hide and possibly too serious to correct without substantial regulatory intervention and expense to prevent a disruptive bank failure that would rock the financial system.

OFF-SITE SURVEILLANCE. The second and more recently developing role is to monitor the perfor-

mance of individual banks. A properly designed program requires that the banks report operating and performance information very similar to that provided by a good management information system to management within the bank. Such information can provide a sound basis for the trend analysis needed to identify developing problems at an early stage. It recognizes that bank supervision needs to assure the stability of national financial markets through preemptive actions to help banks in difficulty before such difficulties become insurmountable. This data can be the best in existence, providing that an effective on-site inspection process verifies its accuracy.

Data from the central bank can be far more informative than individual bank-published financial statements. However, the supervisory agency usually receives regulatory reporting data under legal protection of confidentiality, and the release of such data to any outside body may be prohibited.

Analyst's Objectives

The analyst has to develop an understanding of the performance of a bank or financial system based on whatever information is available to him. With few exceptions, it is not possible to pick up a single set of financial statements of a marginal bank and decide that it is in difficulty. Clearly, an insolvent bank that reports in its published financial statements that it is insolvent is easy to assess (this does happen!).⁶ A bank that is not obviously insolvent is thus best analyzed using a time series that shows developing trend lines and by comparison with peer banks within the same country. Such an analysis requires an adequate level of detail and a consistency of content, interpretation, and presentation of the data, plus an adequate grouping of banks to ensure that comparisons are between like entities.⁷

Limits of Financial Analysis

Banks continuously evaluate the banks to which they lend and to which they entrust some of their clients' transactions. This evaluation generally does not rely exclusively on the results of financial analysis of the other bank's published statements, but uses this analysis to do an initial screening and to raise questions that can be discussed with management. The adage that a bank should not lend to anyone it does not "know"

applies equally well to lending to other banks. However, a bank is unlikely to voluntarily disclose information that would be detrimental to its reputation, and the detailed off-site surveillance data that would provide a more accurate view of the bank's performance may not be collected or, if it is, may be legally restricted to authorized agents of the country's supervisory agency. Financial analysis thus generally depends on incomplete information, and while it helps to develop a relative "level of comfort," it may not provide absolute answers.

It is important to note that the financial performance of a bank reflects the *results* of management decisions taken within the context of resource and environmental constraints impinging on the bank, and inappropriate management decisions may take some time to become evident in the financial statements. Financial statements are thus a lagging indicator of the performance of the bank's management.

Financial analysis also rarely reveals "creative accounting" or even fraud, since a management that is engaged in such tactics is unlikely to disclose this information. Creative accounting can involve delays in the recognition of impairments in asset values, non- or excess accruals, off-market pricing of products or services, and understatement or overstatement of fixed assets or investments, some of which may be perfectly legal in some countries. The analyst should be aware of the general accounting practices of the country and should assume that the weaker the bank, the more creative its accounting practices are likely to be.

Subject to these caveats, this guide seeks to provide some tools for maximizing the use of the information available.

Data Reliability

Wherever possible, the analyst should use primary data—data that have come directly from the bank that is to be analyzed. This cannot generally be done at the clerical level, and using junior staff who do not have an understanding of the underlying business to manipulate the source data can produce unpredictable results.⁸ Some financial analysis services provide packaged analyses of bank statements, but even organizations that specialize in providing very impressive looking analyses err frequently enough that most banks prefer to rely on their own analysis.

Published Financial Statements

Published financial statements are generally prepared according to local, "generally accepted" accounting standards. The local regulatory agency, which may be the Ministry of Finance, the central bank, or a company or stock exchange regulatory body, may prescribe these standards for banks. Published statements generally consist of an audited annual report that includes a write-up of key economic and internal activities that affected the bank during the year, a balance sheet and statement of profit and loss, sometimes a statement of sources and uses of funds, and footnotes (actually endnotes) providing often highly informative explanations of some key financial data and the auditor's opinion. Unaudited quarterly financial information is also generally provided in the more developed economies.

As indicated above, the bias of published financial statements is generally to make the bank appear as sound as possible within the guidelines provided by the regulatory authorities. These annual statements are generally audited by external auditors, and an auditor's statement should be included in the annual report. The quality of the external audit has a major impact on the credibility of the financial data provided. While the major multinational accounting companies have independent reputations to protect and will not knowingly give an unqualified audit report on a bank in difficulty, the quality of the staff can vary from country to country. Local firms usually do not have an international reputation to protect, may have ownership or family interlocks with the bank's management, or may not have adequate professional depth. In some countries, nationalized banks must be audited by the government's auditors, who are often overworked and underpaid for the type of work required to audit banks effectively. Even if a bank uses a major accounting firm, local regulatory requirements may impose very limited scope for the audit, for example by focusing on compliance with foreign exchange laws rather than on the financial and management health of the bank. The wording of the auditor's report usually provides some indication of the depth of the audit and the extent of accounting tests used. Key signs of potential trouble are a change in auditor, particularly from a major multinational company to a local company, since this can suggest that the original auditing firm may have refused to sign off on financial statements that it considered unrepre-

sentative, while a local firm may have shown greater flexibility. Another key indicator is a change in accounting procedures, particularly with respect to valuation of assets or recognition of income, as this suggests difficulties that cannot be adequately covered in the normal course of business.⁹

Generally the external auditor gives a "management letter" to the audited bank's management. Such a letter provides comments to senior management regarding factors that affect the financial performance of the bank or pose unacceptable risks, ranging from accounting practices to the absence of fire extinguishers. Examination of these management letters covering several years, with management's responses, can be enlightening. Unfortunately for the analyst, such management letters are highly confidential and are rarely available except to the top management of the bank.

Banks that pay little or no taxes are likely to overstate income by limiting loan loss provisions and depreciation, while banks that pay heavy taxes or whose shareholders demand high dividends are more likely to understate income through conservative accounting practices (unless they are trying to raise additional capital). While this is not consistently applicable, such possible biases should be considered when looking at the bank's accounting practices.

Internal Management Information

Ideally, the bank's management should be "managing by exception" based on key performance information provided by an internal management information system (MIS). This ensures that management focuses on exception situations, while routine decisions are delegated to middle and junior management based on codified standard policies and procedures. Small banks may not have the resources, expertise, or the need to develop standardized policies and procedures. They tend to be managed in detail—meaning that the top management makes most of the decisions, even the small ones. As a bank grows beyond the size that can be effectively managed by a small central decision-making group, senior management should delegate routine decisions to lower levels and focus on the key policy issues and tracking lower management's performance through consolidated performance indicators and exception reports of significant variances to plan. Management by exception requires a sophisticated management information system. This process tends to lag the

growth of the institution, since management tends not to realize that more sophisticated management techniques are required until their absence creates problems. In those banks where an effective MIS is in place (meaning that an effective data gathering process exists and that these data are reliably stored and converted to information that is presented in a usable form), the internal reports represent the most comprehensive and relevant information potentially available. In addition, the quality of internal management information indicates management's understanding of current management processes and its ability to identify and respond to changes in performance and in the competitive environment.

Internal data should have no external bias since they are for management's own use, although they may reflect senior management's priorities, which are in turn affected by the market and regulatory environment. A good MIS has little value in an environment in which managers do not believe they can materially alter the course of their bank. Development of good internal accounting and management information systems is a complex task that has taxed the resources of the world's major banks. Experience has shown that banks without a good MIS are unlikely to compete effectively in a competitive market, and troubled banks generally do not have a good MIS.

Regulatory Reports

Most banks must provide periodic data to the supervisory agency as part of the regulatory reporting process. This reporting generally includes weekly or bimonthly liquidity data, monthly balance sheet data, and annual profit and loss and supporting data—although quarterly profit and loss data are desirable. Ideally, a copy of the monthly regulatory reporting data corresponding to the date of the published audited financial statements, duly certified by the auditors and accompanied by explanations of differences, should be required by supervisory agencies as a control over disparate data. While these data may not contain all the profitability, portfolio quality, and maturity-gapping data needed to satisfy national statistical requirements and some rudimentary statutory requirements, they can represent the best, most consistent time-series data available and may provide greater detail than published balance sheets. Such data are most valuable when verified by an off-site inspection process.¹⁰

Comparisons of Multiple Sources

Where possible, it is useful to have several sources of data to allow cross verification—for example, material differences in the end of year data as reported in the published statements and the regulatory reports filed with the central bank give a good indication that further inquiry is warranted. This can be a frustrating exercise for the analyst, since conflicts in the data provided by different sources may not be resolvable.

Notes

1. In one country, adoption of Islamic banking led to an improvement in bank earnings because the banks used the change to break away from the previously unrealistic government controls on interest rates.

2. Islamic practices were not a significant factor in the sometimes severe banking sector problems in any of the Islamic countries in which the author has worked. However, the author is not an expert on Islamic banking, and serious financial analysis of a bank in an Islamic environment could benefit from other sources of guidance.

3. In an extreme example in an English heritage system, the bank supervisory agency only requires profits to be reported in published annual reports starting with “net profit before distribution,” thus omitting *any* information on operating income or expenses.

4. The 1974 failure of Bankhaus I.G. Herstatt in Germany resulted, among other things, in a careful re-analysis by a major New York bank of Herstatt’s published financial statements, along with those of some 20 other significant banks that had failed in the previous few years. This careful analysis failed to disclose any underlying common factors or trends that could have been used to identify the developing financial difficulties of these institutions, even with hindsight. This bank had suspected that Herstatt was in difficulty in 1973 based not on financial analysis of published statements, but on market “feel” that Herstatt was overtrading, and by Herstatt’s willingness to lend its name to transactions that would have been avoided by a reputable institution that was not reaching for profits to cover undisclosed losses.

5. A comparison between the aggregates reported in the official national statistics and a summation of the banking system’s financial statements in one country showed that the individual banks were publicly reporting one-third of the capital base that was shown for the same institutions in the national statistics, creating potential credibility problems with the national statistics.

6. Insolvent, meaning that its liabilities exceed the value of its assets, indicating that creditors cannot be paid in full. This is a condition of fact that is independent of any legal or regulatory recognition.

7. There is no merit in comparing the performance of an agricultural bank with that of a commercial bank or development finance institution since these institutions have fundamentally different business focuses and areas of potential weakness.

8. For example, a former bank credit analyst on the author’s staff (but not for long) reviewed the financial data provided by a prospective client company and reported that the potential borrower was making substantial profits and was thus creditworthy. In fact, the analyst had not dug deep enough to learn what the company was actually doing—it was still in its start-up phase and the amount shown as “profit” in its internal management information system reflected the amount by which it was under budget on its start-up expenses. It had not actually made a single sale.

9. Examples are changes in depreciation policy or revaluation of fixed assets, which increase nominal fixed assets and income without an actual change in the institution’s business or the real value of its assets, thus effectively reducing capital reserves if any of the increased nominal revenue stream is paid out in taxes or dividends. A sale-and-lease-back of an institution’s buildings converts “hidden” reserves in the form of unrecognized capital appreciation on the institution’s assets to cash, also weakening the institution if any part is paid out as dividends.

10. In at least one country these data originated directly from individual accounting departments within the banks without significant quality control by the reporting bank’s management. The central bank had given up on getting accurate, timely information from the reporting banks’ management, so had bypassed it by seeking direct information from operating contacts within the banks. The central bank was thus running a parallel management information system.

4. Balance Sheet

The balance sheet provides a snapshot of the assets, liabilities, and equity of a bank at a point in time. This is the one statement that is usually available in some form as of the end of the bank's fiscal year in its annual (and sometimes quarterly) published report and monthly or even weekly for regulatory reporting purposes. Large international banks usually prepare a daily balance sheet for internal management purposes. Box 2.1 shows the balance sheet developed for a central bank's off-site surveillance system. It conforms to the risk differentiation requirements of the Basle Agreement (the text of which is shown in annex 7) and to the European Community directives on bank financial statements. This format exceeds the level of detail you may find in published statements in many countries.

Since fiscal year-end figures determine the content of the annual report, manipulation of the data through reallocation of reserves, revaluing assets, and "window dressing" transactions with other banks can have a material impact on the bank's ratios and the public image of the bank. Several countries have placed limits on year-end window dressing or have required that banks publish average balance sheets that negate the effects of year-end manipulation. The monthly regulatory reports tend to be more representative, although banks may account for accruals, depreciation, and provisions only quarterly or at year end.

Regulatory reporting requirements usually include a series of supplemental reports such as maturity gapping, aging of past dues, loan classification, asset and liability concentration, connected lending, and sectoral distribution. These complement the balance sheet and are described separately in chapter 6.

Chapter 5 will generally follow the structure of the balance sheet in annex 1 and box 2.1. However, it will digress where a discussion of the underlying concepts appears essential to fully understand some

of the balance sheet categories and where an explanation of alternative presentations is needed due to lack of consistency between countries.

Assets

This section reviews the common asset categories found on a bank's balance sheet (as shown in box 4.1), describes the nature of bank assets, and indicates where and how these assets may be manipulated. The order of presentation follows levels of decreasing liquidity. Liquidity is determined by a combination of pure credit risk and market rate risk. For example, cash and treasury bills are generally the lowest risk assets, while loans and investments are higher risk. Fixed assets are generally illiquid if the bank wishes to remain in business, and "other" assets are of generally uncertain value. A bank's financial statements rarely provide an adequate quantification of the risks associated with particular assets. If ambiguity exists, an asset should be allocated to a higher rather than a lower risk category. Some of the segmentation shown in box 4.1 is needed to separate like assets by degree of risk for risk weighting purposes. Risk weighting is covered in the Basle Agreement reprinted in annex 7.

Cash

CURRENCY, DOMESTIC, AND ZONE A in local currency may include vault cash, possibly up to a given percentage of deposits.¹ While cash represents the most liquid asset available, some countries feel that normal vault cash is a part of doing banking business and cannot be significantly reduced and that it thus does not actually provide incremental liquidity. Some nationalized commercial banks have been assigned the task of acting as the government's paymaster. This may require extensive cash to be held throughout the branch sys-

Box 4.1 Assets

Cash

Currency—domestic and Zone A notes and coin
Balances with the central bank, including reserves
Notes and coin from non-Zone A countries

Treasury bills and bills eligible for refinancing with CB

Domestic treasury bills
Other refinancible bills and securities
Government risk
Other risk, including trade bills and acceptances

Loans and advances to credit institutions

Foreign treasury bills
Zone A countries
Other
Sight deposits
With unrelated domestic and Zone A credit inst.
With other foreign banks
Money market deposits of one year or less
With unrelated domestic and Zone A banks
With unrelated domestic financial institutions
With other foreign banks
Loans and advances to related credit institutions
Other loans and advances to credit institutions
Debit items in course of collection

Loans and advances to customers

Non-rediscountable bills and factoring
Other short-term loans and advances
Term loans with original maturity of over one year
Mortgage loans secured by residential property
Less loan losses reserves

Assets leased out under finance leases

Financial-leasing assets
Less accumulated depreciation

Bonds and other fixed interest marketable securities

Domestic government securities
Issued by the central government
Issued by local governments
Securities issued by others
Own debt securities

Shares and other variable yield securities

Ordinary trading position in securities
Temporary holdings of securities in placement
Other variable-yield securities

Own shares

Participating interest and other financial investments

In other credit institutions
In other business undertakings
Other financial investments

Majority interests

In other credit institutions
In other business undertakings

Intangible assets net of amortization

Tangible assets net of depreciation

Tangible assets used for banking business
Land and buildings
Technical equipment, machines, and vehicles
Other furniture, fixtures, and fittings
Construction in progress
Less accumulated depreciation
Non-banking tangible assets (net)

Other assets

Items in suspense
Other assets

Total assets

tem, causing vault cash as a percent of total assets to be higher than that of other banks.

DEPOSITS WITH CENTRAL BANK consist of:

- *Working deposits*, which are needed to cover the settlement of interbank payments and check clearings.

- *Mandatory reserves*, which generally are based on a percentage of the bank's customer deposits and are used to ensure adequate liquidity and as a control over monetary aggregates by dampening the multiplier effect. The most complete formulae are based on maintaining an average reserve deposit over a given time period based on a percentage of average client deposits during a shortly preceding period. In practice, many countries simplify this to reflect minimum reserve deposits based

on the client deposits on record at the end of a previous period.

- *Uninvested surplus liquidity*—Banks in countries with active money markets will usually try to minimize excess deposits with the central bank, since these would represent an opportunity cost to the bank.

Treasury and Rediscountable Bills

Assets that can be rapidly converted to cash, should the bank need to meet depositor withdrawals or increased loan demand, are the liquid assets that are the primary component of liquidity ratios used by some bank supervisory authorities, and acceptable categories include:

DOMESTIC TREASURY BILLS generally have maturities under one year and may be rediscountable at a penalty with the central bank. They may form part of the mandatory reserves or may represent investment of the bank's liquidity reserves. These securities either may form a legitimate tool to manage the money supply or may represent enforced financing of government deficits, in which case the actual level of liquidity provided will only be as good as their marketability or the treasury's ability to actually redeem the bills at maturity. For analytical purposes, these are assumed to be cash equivalents, since the central bank or treasury has the power to print the money to redeem them in an emergency, even if this proves inflationary.

OTHER REDISCOUNTABLE SECURITIES may be included in liquid assets if they can routinely be converted to cash through a discount window at the central bank (effectively used as collateral for a loan at or near normal market interest rates). Such securities include:

- *Government risk*—Some countries' treasuries issue longer-term instruments—typically called treasury bonds—that should be included in this category of liquid assets only if the central bank provides an unrestricted discount facility to advance funds against the collateral of the bonds² or if a sufficiently deep secondary market ensures that such bonds are freely convertible to cash at a reasonable approximation of face value. Otherwise, treasury bonds should be treated as higher risk, less liquid, investments.

Some governments have declared that certain assets can be included in liquid assets, even though they are long-term and no market exists for them: bonds issued by parastatal enterprises, for example, may either be long-term or, if short-term, in effect require roll-over since the parastatal may lack the revenue stream or alternate borrowing source needed to generate the funds required to meet maturing bonds. Such assets should not be included in liquid assets for analysis purposes.

- *Commercial risk* securities include discounted trade bills that the central bank refinances on a routine basis, as is common in countries with a French heritage. These instruments carry normal commercial risk, and this line item compliments the non-rediscountable bills under loans to customers.

Loans and Advances to Credit Institutions

FOREIGN TREASURY BILLS would normally show up in the balance sheets of banks with overseas

branches or consolidated subsidiaries. These would not form part of the bank's domestic liquid assets, since they are convertible to cash only in the country of issue. For risk weighting purposes, these are separated into:

- *Zone A countries*
- *Other countries.*

SIGHT DEPOSITS can consist of deposits in:

- *Unrelated domestic and Zone A institutions* including working or clearing accounts with other domestic or foreign banks. Domestically, this may be necessary if the bank does not have direct access to the country's central bank or interbank clearing system and thus requires a larger bank to give it access to other financial institutions and the clearing system.

- *Other unrelated foreign banks* would include working balances with banks outside of the Zone A area. Typically, these are small reciprocal accounts needed to settle international trade transactions that require settlements in non-Zone A foreign currencies.

MONEY MARKET DEPOSITS involve placements of surplus funds with domestic or foreign banks. Such interbank placements form the country's money market. Money market deposits can be overnight or on a time basis, generally for not more than 360 days, and allow a bank to earn some interest on surplus funds while providing it with the ability to tap this liquidity reserve through not renewing a maturing placement. Such placements are only useful as liquidity reserves to the extent that the other bank is able to repay at maturity, generally through borrowing from another surplus bank, and longer-term placements should be excluded from short-term liquidity.

- *Unrelated domestic and Zone A commercial banks*—Domestic money market placements are generally used for liquidity management purposes but can be misused where a sound bank borrows from sound banks and lends to unsound banks to arbitrage the risk premium. Foreign placements represent investment of the bank's foreign currency surpluses. These can be shown either here or under foreign assets. Large foreign placements in a country with tight exchange controls and a weak currency can indicate speculation against the domestic currency.³

- *Unrelated domestic financial institutions other than commercial banks*⁴—In countries that have shown very rapid growth in the number of financial institutions (possibly exceeding the growth in available competent management), the risk of placing funds with weaker banks or non-bank finan-

cial institutions may not be as well recognized as the interest rate premia. This can result in a domino effect, where the failure of one bank with heavy interbank borrowings can cause terminal liquidity problems for other banks. Some countries use net figures to calculate compliance with regulatory liquidity limits by offsetting the money market placements and borrowings. Since money market placements involve risk, and it is unlikely that a bank will have a matched amount and maturity position with another bank, such netting is unwise and should not be accepted in the analysis. Financial statement and regulatory reports (including the example in annex 1) generally require full disclosure of interbank assets and interbank liabilities.

- *Other foreign banks* can include funds blocked in other countries by exchange control restrictions, and any significant amount in this category should be a cause for concern.

Deposits in secondary financial institutions may be treated as liquid assets in balance sheets and in regulatory reports, but deposits with smaller or financially weaker institutions pose an increased credit risk since these institutions may not be able to generate (or borrow from other sources) the funds needed to repay a maturing deposit. Banks with a poor understanding of the credit risks involved may be attracted by the higher rates that smaller, weaker institutions are often willing to pay.⁵ In countries where unmanaged "liberalization" of a tightly controlled financial market has occurred, regulated banks have worked around regulatory impediments by establishing and funding subsidiaries that are less regulated or unregulated. Such funding may be visible in this section but should more appropriately appear under funds with related institutions (below) if short term or under loans to related entities (below).

Prudent banks treat money market placements as credit exposure and subject to internal approval limits, concentration limits, and operational controls equivalent to those used on loans to commercial clients. Only placements with prime credit institutions should be included in money market deposits. If the analyst suspects a concentration or placements with unsound banks, then the affected interbank placements should be moved to a higher risk category such as loans, loans to related companies, or investments.

LOANS AND ADVANCES TO RELATED CREDIT INSTITUTIONS. For example, a bank sets up a leasing subsidiary and funds it through short-term money

market placements. The subsidiary uses these funds to make long-term leases. Such a captive subsidiary cannot repay such funding until the leases pay out, and a captive leasing company is unlikely to be able to borrow from other banks to repay the parent without some form of direct or indirect guarantee from the parent. The funds "downstreamed" to the subsidiary are thus in effect no longer available to the parent.

OTHER LOANS AND ADVANCES TO CREDIT INSTITUTIONS. On rare occasions, a major bank will make a formal loan to a smaller institution. Usually this would be the result of a support operation and may involve an understanding on control over the smaller institution. Additionally, it has been common in the international market for major banks to provide each other with emergency stand-by facilities, usually to cover possible disruption of the international exchange or money markets. While these lines would not normally be drawn, any drawing that would occur would represent higher-than-normal-risk interbank transactions and should be shown separately. Finally, many developing country banks have received loans from multinational agencies for on-lending to their clients as part of national economic development programs. Such loans would also be identified here and, if in foreign currency, would alert the analyst for possible uncovered foreign exchange losses.

DEBIT ITEMS IN COURSE OF COLLECTION result from the normal banking business of clearing deposited items and collections payable at other institutions. These items would be reflected in the balance sheet in this category from the time that the collection is sent to the drawee bank until covering payment is received. These normally remain quite stable as a percentage of total assets.

LESS INTERBANK PROVISIONS. Loans and advances to credit institutions involve some risk, and if specific loan loss provisions are shown as contra-assets, a category covering expected interbank losses may appear here. In the example provided in annex 1, only the reserves on loans to non-financial customers are broken out as contra-assets, with any reserves for interbank losses assumed to be not generally material⁶ and thus grouped as a liability reserve under provisions for other credit losses (discussed below).

Loans and Advances to Customers

The bank's normal business includes all loans and advances made to and bills discounted for unre-

lated borrowers in the normal course of business. These are sometimes referred to as *Normal Risk Assets*. A bank's lending portfolio can be analyzed from three distinct angles:

USE OF THE LOAN PROCEEDS, generally reflecting the initial contractual repayment period and typically broken down as in the sample report into:

- *Bills discounted* (or, in our sample, the portion thereof that is not rediscountable with the central bank), which are short-term and self-liquidating trade financing that typically have maturities between 30 and 180 days.
- *Short-term loans and advances*, generally up to one year and covering inventory and receivables financing.
- *Term loans* over one year's initial maturity that typically finance plant and equipment.
- *Mortgage loans* secured by residential property and very long-term. Although generally small or nonexistent in a commercial bank, mortgage loans carry a lower risk weighting so should be broken out separately.

This approach (used in the regulatory reporting sample in annex 1) provides a quick view of the nature of the bank's business.

REMAINING MATURITY. The current European Community guidelines recommend reporting by remaining maturity in published financial statements—in effect substituting a maturity profile of the loan portfolio for information on the type of lending being performed. This may be adequate for the general public but fails to highlight changes in the bank's business and is not adequate for serious financial analysis.

ECONOMIC SECTOR—thus by nature of borrower. IMF statistics and UN guidelines follow the sectoral approach, and this is often incorporated into the structure of regulatory reports so that this information is available for national statistics. Major categories include:

- National and local government
- Government-owned or -controlled enterprises
 - Agriculture, ranging from the subsistence farmer to horticulture, forestry, and agribusiness
 - Animal husbandry
 - Fisheries
 - Industry, including manufacturing and assembly
 - Commerce and trade involved in the distribution process
 - Services, such as transportation
 - Private individuals.

Presentation of the Loan Portfolio

Regulatory reporting requirements frequently require that division by maturity be used in published annual reports but that at least the data according to sectoral distribution be included in supplemental statements to regulatory reports. Published data typically show bills discounted separately from other loans and advances and often consolidated into a single line item or, at most, separated into less than one year and one year or more. The data available will often reflect the predominant concerns of the regulatory authorities—a country with lending targets or ceilings by economic sector will tend to require banks to report based on these requirements. Some fairly standard loan structures are used to meet the varying needs of client type and borrowing purpose as follows:

ASSET-BASED FINANCING of plant and equipment uses the borrower's assets to secure the debt. In hire-purchase or leasing transactions, the lender actually retains legal ownership of the plant or equipment being financed at least until the end of the contractual repayment period. The bank ensures it is fully secured by lending only up to the amount recoverable through a seizure and sale of the assets financed—the amount reasonably expected from an orderly liquidation of the assets, net of any expenses incurred in the sale. This form of financing minimizes the risk to the bank and may thus allow it to extend credit to clients that are not creditworthy on an unsecured basis. In developed countries, this conservative form of lending allows the bank to work with its higher-risk clients, while in developing countries with inadequate legal and accounting support or adequate management resources, this may be the only form of lending that represents an acceptable risk level to the bank. Even though this is one of the lowest-risk forms of lending, it is generally used with the highest-risk clients, so effective, rigorously applied documentation and periodic physical monitoring of the collateral is essential to ensure that the loan remains properly secured.

- *Real estate* tends to appreciate rather than depreciate, so mortgage lending in developing countries is often the safest form of lending, with the banks surprisingly frequently believing that they can safely ignore the borrower's ability to earn the funds needed to repay. Foreclosure and repossession may be legally possible in theory but are unrealistic in practice if the legal system is not

effective or if community pressure protects defaulters. Fire or other insurance needed to protect the value of the collateral may be absent. In addition, special purpose buildings may have full value only if used for their originally intended purpose. In many countries, specialized institutions provide finance housing through mortgages on residential property. This typically involves long-term lending at fixed interest rates that are often held below free-market levels for political reasons. Match funding at a comparable cost is generally not available, so these specialized institutions take an inordinate maturity risk by lending long-term and funding short-term. The result is either massive failures, as has been the case with the savings and loan industry in the United States, or continued regulation of deposit rates, leading to disintermediation from the financial system, low savings rates, reduced funding availability outside of government-subsidized sources, pressure on prices as the public seeks to conserve savings in consumer products, and capital flight.

- *Equipment finance*, either through direct financing or leasing, should be based on a collateral value of less than full purchase price, since such assets generally depreciate immediately by at least the installation cost.⁷ Accurate control over collateral values requires a sound appraisal process supported by adequate restrictions on the diversion of equipment and by an adequately deep secondary market for the type of equipment financed. For example, lack of disbursement controls to prevent diversion of the proceeds of the loan and easily movable equipment installed close to a permeable national border make for poor collateral security. In theory, such lending should only occur where the client has a demonstrated ability to use the equipment financed to generate the income needed to repay the loan over the useful life of the equipment, and the repayment period should not exceed this useful life. The general practice in many developing countries in which detailed financial information and accurate projections are not available is to lend only up to an arbitrary percentage of the appraised orderly liquidation value, thus relying on the collateral value rather than the cash generation capacity of its use.⁸

- *Hire-purchase finance* of consumer household durables and automobiles ensures that the title to the merchandise remains with the lender until full payment, thus removing legal problems with repossession. Typically, this form of finance is done on a statistical basis, often with a credit scoring process based on a fixed number of hurdle criteria.

Interest rates are high to compensate for the proportionately high operating expense (due to the low individual transaction size) and to cover the loan loss provisioning required by the high default rate characteristic of this type of lending.

TRADE FINANCE covers the financing of merchandise between manufacture and sale to the end user—inventory in transshipment and in warehouse. This can include:

- *Pre-production finance* of the raw materials needed to manufacture the merchandise.

- *Transshipment finance* through a letter of credit where the bank assures the manufacturer or its representative on behalf of the buyer that payment will be made providing that the documents evidencing title and proper shipment and insurance of the merchandise listed are delivered to it in conformity with the terms of the letter of credit.

- *Inventory finance* secured through warehouse receipts or a lien on the merchandise.

- *Buyer finance* that allows the merchant to finance the purchase by the next purchaser.

While the underlying objectives remain the same, some differences in trade finance exist between countries—for example, the French/Napoleonic system has a highly effective way of discounting trade paper. The seller draws a draft on the buyer specifying date and place of drawing, the amount of the drawing, and the maturity date. This draft is presented to the buyer, who must accept it through endorsement before control of the merchandise is transferred. The drawer (seller) then discounts the draft with his bank, usually with recourse to guarantee payment should the drawee (buyer) fail to honor it at maturity. The bank then has the option of rediscounting (and thus refinancing) the draft with the central bank, historically at a rate below the market, provided that the drawee is acceptable to the central bank. At maturity, the draft is presented on behalf of the discounting bank by the central bank to the drawee's bank for presentation to the drawee for payment. Non-payment of such an instrument can trigger a "protest" mechanism that leads to a forced bankruptcy or at least backlisting by the central bank of the drawee if the draft remains unpaid and the drawer forces the issue. Well-managed enterprises thus avoid non-payment. Any unpaid draft is charged back to the discounting bank by the central bank, which then charges the instrument back to the original drawer.

This system thus provides the discounting bank with two-name paper with a primary source of repayment being the drawee, who is strongly mo-

tivated to pay, and with the secondary source the drawer. It should be noted that the practice in some countries is to assume that the bank is acting largely in a fiduciary capacity on behalf of the drawer and that its funding risk is covered by the central bank, so the discount and rediscount are kept off-balance-sheet. The risk in these transactions is generally low, but if both drawee and drawer fail to pay, the bank is out of funds just as it would be if a borrower defaults on a loan. This category should therefore be included in normal risk assets for analysis purposes, even if it appears off-balance-sheet in the bank's statements. This process can be used at each stage in the chain from raw material to end user but has the disadvantage of being document-intensive and thus expensive. In some countries, the central bank may use eligibility criteria and rediscount rates as instruments of monetary policy and to encourage extension of bank credit to favored market segments, agriculture in particular.

In British and American systems, the discount of trade acceptances has fallen into disuse, and trade is generally conducted on an open account basis without the acceptance of trade bills. Banks will provide receivables finance to sound borrowers and often a "lock-box" arrangement whereby commercial check payments made to a corporate client in settlement of trade invoices are intercepted by the bank and cleared through the check clearing system. But this is generally a reactive process, with the bank relying primarily on the creditworthiness of the individual borrower, without recourse to its clients' customers. However, some banks and non-banks provide factoring (the discount of trade receivables, often with formal assignment on the trade claim against the trade obligor) that achieves somewhat similar objectives but without refinance by the central bank.

OVERDRAFT FINANCING is the dominant form of finance in many countries, particularly those that inherited an English or French banking system. In the United Kingdom, working capital financing is provided predominantly through overdrafts in current account, where the existence of an overdraft caused by honoring checks drawn by the account holder is legally sufficient evidence of debt.⁹ Overdraft financing may work well in the U.K. where credit procedures are formal and effective and where the bank can maintain strict control through its ability to call the debt at any time and immediately seize the general assets of the borrower that are pledged to support the debt. However, this practice of taking a general lien

against all the borrower's assets can effectively lock a client in to a single bank, since a lender will not normally accept a second ranking security position, and the initial bank may not wish to grant *pari passu* status.¹⁰ Developing countries that have inherited the overdraft system frequently do not have equivalent access to credit management expertise or effective legal support, so overdraft financing can easily get out of control, typically resulting in interest being accrued and automatically added to the overdraft balance long after repayment has become unlikely. Even in the U.K. where the appropriate infrastructure exists to support overdraft financing, banks have been increasingly moving to fixed-term lending to clarify the banker/customer relationship.

AGRICULTURAL LENDING often represents a key government objective in developing countries. Objectives may include reducing the cost of imports through autosufficiency in food, optimizing production of what may be the country's major export earner, or simply trying to reduce the population pressures on the cities by encouraging farmers to stay on the land. Repayment of agricultural loans is dependent on good crops, which in turn depend on the weather. Since the benefit of surpluses during good years is rarely saved to compensate for bad years, agricultural lending institutions experience highly variable recovery levels. Agricultural lending is inherently very risky. Such lending takes several forms:

- *Infrastructure development*, such as irrigation, storage, and development of processing and the distribution system. These projects may not allow for reasonable collateralization (it is difficult to repossess and sell a well).
- *Equipment finance* similar to that for asset-based financing, but with much less certain cash flow, to finance farm tractors or other production equipment.
- *Crop finance* covering seed, fertilizer, and other inputs at planting to be repaid out of the proceeds of the sale of the crop at harvest. Outstandings are thus closely related to the crop cycle, and banks that focus on agricultural finance typically have major swings in their balance sheet size and composition during the year, as well as in their earnings.¹¹

The track record on agricultural lending in both developed and developing countries indicates that any bank that is significantly involved in agricultural lending is likely to have earnings volatility.

LENDING TO OTHER FINANCIAL INSTITUTIONS, except for the normal treasury management function of

placing surplus funds with prime banks, can be an area of concern, particularly if credit management practices in a country are not fully developed. Significant loans to weak institutions can result in a pass through of difficulties in weak institutions to others that are otherwise sound, potentially aggravating any crisis in the banking system. Some countries have found that this area merits significant prudential surveillance.

Credit Practices

Clearly, the quality of a bank's loans is critical to the analysis, and a good understanding of the bank's lending practices and the lending environment is essential for a sound analysis. The prudent management of risk is the heart of banking—it is said that "any fool can lend money, but it takes a banker to get it back." Annex 7 provides a questionnaire on the bank's internal management and control of its loan portfolio, while annex 9 provides a procedure for evaluation of a bank's loan portfolio. Unfortunately, the analyst will rarely have the opportunity to conduct a full review of the bank's credit practices so may be limited to general information on at least the following key elements in ensuring an appropriate analysis. This part of chapter 5 will digress briefly in the hope of strengthening the analyst's understanding of what is behind the numbers.

INTERNAL POLICIES AND PROCEDURES as defined in the written internal credit policy manual and as used in practice. A surprising number of developing country banks do not have formal credit policies and procedures that define the bank's loan products and the conditions under which it will extend credit. Banks without written policies and procedures rely on a subjective process whereby senior management makes credit decisions according to its understanding of the market and personal knowledge of individual borrowers. While the lack of a formal manual does not necessarily indicate a failing bank, failing banks not surprisingly have rarely applied sound credit policies on a consistent basis. Policies and procedures should include an effective internal loan classification system and a clear identification of responsibility for the supervision of risk assets and should cover at least the following issues:

- *Credit risk* is the most obvious. The bank takes in depositors' funds and lends them to borrowers. In doing so, it runs the risk that some borrowers will not be willing or able to repay. Any failure to repay reduces the value (thus the capi-

tal) of the bank and must be made up by earnings from those who do repay if the bank is to remain solvent. Thus, the higher the non-repayments, the higher the interest differential margin that the bank must apply to survive and the less economically and competitively efficient the bank becomes. While this may be stating the obvious, efforts to push banks into more aggressive lending to high risk borrowers seem to ignore this rather basic process.

- *Maturity risk*—In a positive yield curve environment, a bank can take in short-term funds at relatively low rates and lend those funds at longer term at a higher rate. This is the maturity transformation process in which the bank "adds value" to the economy and earns much of its interest differential income. The bank can generally rely on a certain amount of stability in its short-term funds—a significant portion of its demand deposits represent working balances that may roll over rapidly, but if the market and the bank's reputation are stable, funds withdrawals will be replaced, with only the fluctuations in total deposit levels affecting the bank's cash position. If the risks are acceptable and normal positive yield curves prevail, management will seek opportunities to extend lending maturities to increase earnings, thus increasing its maturity transformation role.

The willingness of informed management to gap the bank's maturity position depends on seasonal fluctuations in deposit levels and on management's level of confidence in the underlying political and economic stability of the country. Key to such confidence is the level of protection from disruptive bank failures provided by the prudential supervision system, the lack of arbitrary or disruptive changes in market liquidity, the absence of distortions in the yield curve, and the effectiveness and predictability of the legal system's support on loan recoveries. Uninformed management may be too conservative and lend only short term, thus failing to maximize income, or it may aggressively seek to improve income by lengthening maturities to the point where they cause the bank to become illiquid. Bank supervisors and the internal MIS (where it exists) seek to monitor the level of maturity gapping by either assuring that a certain percentage of deposits is maintained in liquid assets or, in more progressive systems, by using an asset and liability maturity schedule that tracks the anticipated positive and negative gap at specific points in the future (see chapter 6).

If such reporting exists, then monitoring the gap profiles of banks within peer groups can make

it possible to identify banks that deviate significantly from the norm and can indicate changing management-gapping policy over time (or a lack of effective liability management). In addition, such data can be a useful indicator of the market's expectations of future interest rate trends, and the review of entire peer groups' responses to changing regulatory or economic factors can provide useful feedback for the central bank's economic management.¹²

- *Interest rate risk* occurs when a bank engages in significant maturity transformation without adequately protecting itself against the fluctuating cost of funding. If funding rates are variable, then lending must remain short-term or the rates must be variable to ensure that the bank's funding costs remain below its lending rates. Ideally, lending rates should relate in some way to market or funding costs, so that a rise in market rates can be passed through to borrowers, encouraging those that cannot gainfully use the funds at the higher rates to curtail some of their borrowing. Mortgage banks are particularly vulnerable to this risk.

- *Interest accrual*—In principle, interest should only be accrued on risk assets where the probability of repayment of the principal is high since, if the principal is not going to be repaid, interest is unlikely to be received. As indicated above, interest on uncollectible overdrafts is difficult to monitor. A reasonable approach would be to stop accrual of interest if deposits into an overdraft account during a given period fail to cover the interest accrued during that period. It is also difficult to identify new loans that have been made to a lending bank's clients to cover past due interest or principal unless a full portfolio audit is done. Here, the analyst is dependent on the prevailing auditing and prudential supervision standards, which should require a loan classification system that captures renegotiated loans and that limits the period for accrual of interest on non-performing loans. Clearly, adding accrued and unpaid interest to the amount of the loan outstanding improperly increases nominal loans outstanding and total assets, and thus reported earning, capital, and capital adequacy ratios. A bank's loan growth that far outpaces the rate of inflation is often a warning indicating capitalization of unpaid interest.

- *Cash-flow lending* differs from the traditional asset-based lending in that it depends more heavily on an evaluation of the future earnings capacity of the borrower and only to a lesser extent on any collateral support and is thus practical only in countries that have highly disciplined accounting and

financial disclosure practices and a legal system that fully supports contractual agreements and a fairly stable economy as well. To be effective, cash flow lending requires a detailed analysis of the financial statements of the borrower and detailed projections developed with the borrower that anticipate changes in historical trend lines based on the borrower's business plan and anticipated changes in technology and the competitive environment. This is a complicated process. Most developing countries have not developed the accounting and legal infrastructure nor the financial modeling skills necessary to support unsecured cash flow lending.

- *Character lending* relies largely on an evaluation of the moral character and past performance record of the borrower and takes the form of direct lending or lending to a third party under the (often unenforceable) guarantee of the person of known good character. This process has worked well for moneylenders who can charge usurious interest rates and employ collection techniques that are not available to a bank. While this approach has been carried through into the formal sector in some closed societies where the social stigma of default is very high and population mobility is very low, it requires that a potential defaulter will face enough unpleasant consequences from the default to be effectively encouraged to meet his obligation. Unfortunately, many countries have experienced a decline in the traditional values that had made the risks of such lending acceptable, particularly among the more affluent sections of the population.¹³ With rare and unpredictable exceptions, character lending within the formal system appears to work effectively only in developed countries with strong legal systems and excellent credit information bureaus.

- *Loan pricing* policies have a critical impact on the bank's profitability and on its willingness to accept higher risks. Rational loan pricing takes into account the cost of funds (fully loaded to reflect the interest paid and related operating expenses), the cost of capital allocated to the loan, the analysis and processing expense involved in evaluating and booking the loan, a minimum profit target to justify engaging in the business, a relative maturity premium to compensate for the interest rate and liquidity risks of maturity transformation, and a relative risk premium based on the characteristics of the loan and the related project, plus the performance record of the borrower. A banking environment that limits the ability of the bank to adjust its pricing to reflect these factors or

that increases the risk of default through interference with resolution of troubled loans or through lack of adequate legal support will result in conservative banking practices that will allocate available credit predominantly to only the best and safest borrowers, while an environment that provides inadequate competition may encourage overpricing.

- *Risk concentrations*—Part of the risk management process involves a dispersion of risk so that the failure of a single borrower or group of related borrowers or difficulties in a single economic sector should not cause the bank to fail. This translates into loan concentration limits on any single borrower or group of related borrowers of not more than a certain percentage of capital, typically between 10 percent and 25 percent, with higher restrictions on industry or geographic concentrations.¹⁴ Failure of the bank to observe such risk concentration limits may significantly degrade the financial stability of the bank and should be considered in an analysis.

- *Third party guarantees*—A bank may be requested to accept a guarantee from a third party as “security” for a loan. However, a guarantee represents little more than a right to claim in court, assuming that the court system is effective. Competent bankers will generally not accept guarantees as the equivalent of security, even if the guarantor is a major client and is “undoubted.” While bankers may look at a guarantee as a possible second way out of the loan or as a source of leverage over the guarantor to encourage the support needed to ensure that the primary obligor repays, they will not lend unless they are satisfied that the underlying credit risk of the primary borrower is satisfactory. Should the bank be willing to accept a guarantee as additional support for a loan, then this acceptance is based on satisfaction that the guarantor would honor a demand for payment should the primary obligor default. A guarantee thus bears the same risks of non-payment as apply to the obligation of the primary obligor and should be subject to the same credit evaluation and controls that should be applied to the primary obligor. However, reliance on such third-party guarantees is surprisingly common in developing country banks to justify lending to obligors that the bank would not lend to without a guarantee. This in fact places the guarantee in the position of first way out. This is often aggravated by little or no control over the amount of guarantees accepted from any one guarantor or over the documentation. However, accepting a guarantee from an un-

doubted personality in some countries is almost automatic, with little or no control exercised as to the amount of guarantees that have been given by that individual. The bank is not doing the guarantor any service by allowing him to overextend himself in favor of borrowers, nor should much value be placed on the guarantee of an overextended guarantor, even assuming it is legally enforceable. Significant reliance on guarantees may indicate management weakness and probable loan portfolio problems.

A weaker variation on the guarantee is the “letter of comfort.” Major international companies may refuse to issue a formal guarantee covering debts incurred by a subsidiary or affiliate but may acknowledge the existence of the debt and promise to maintain management control of the subsidiary through a letter of comfort. This has the value of verifying that the parent company or bank’s financial management knows that the subsidiary or affiliate is incurring the obligation and that the debt is authorized internally within the group, but little more. A sound, reputable international company or bank will not normally risk impairment of its market reputation by allowing a bank to incur credit losses with a same name subsidiary or managed affiliate, so a letter of comfort is not necessary, while the existence of a letter of comfort is unlikely to be of any significant legal value against a company that is not concerned with or able to protect its reputation.¹⁵

- *Loans to related entities* are defined as loans to any company that is effectively controlled by or controls the bank through ownership, family ties, or other links, or where both entities are controlled by the same parent company, owner, or group. Such lending is often not disclosed separately in published financial statements. Such items are generally carried as part of the general loan portfolio or in other assets if no formal loan agreement exists. However, experience has shown that many bank failures in developing economies stem from loans to related financial or industrial entities that are in financial difficulty. If the bank is a member of a group of related companies and credit policies are weak or not strictly adhered to, prudent collateral requirements and concentration limits may be ignored and loans may continue to be given to a sister company in difficulty in an effort to save it, whereas an unrelated bank would curtail further funding. In some countries, loans to the owners form a significant portion of some bank’s portfolios.¹⁶ This category of assets has been sufficiently troublesome that countries have strengthened pru-

dential reporting requirements in this area.

While it is true that most major banks were set up by special interests to gather funds for their own purposes, the banks that have prospered have done so by diversifying their risk away from the original founders. A bank that is in difficulty because of weak management can generally obtain better management and recover, but shareholders or directors who are the direct or indirect beneficiaries of significant loans from their bank are unlikely to take seriously risk limits to themselves or to take any action needed to correct weak management or enforce debt collections. Loans to directors and policy level officers are restricted and closely monitored by the supervisory authorities in developed countries; a lack of prudential restraint invites abuse.

- *Loans to executive managers and directors* are prohibited or tightly restricted in developed banking systems. Approval of a loan to an individual who can materially affect the policy of the bank (and possibly the career of the approving officer) is unlikely to be made according to normal risk evaluation criteria and may result in unprofessional leverage developing between senior managers. The regulatory authorities in developed banking systems carefully scrutinize any such loans. In many developing countries, however, government wage guidelines have restricted executive compensation, leading to the substitution of perks for reasonable compensation. These perks can include housing and personal loans at preferential interest rates that violate the practice outlined above, and may lead to a general breakdown in discipline where these perks exceed clearly defined boundaries.

- *Loans to officers*—Credit extended to senior managers requires that relatively junior staff must process loan applications for the officers that directly affect that junior staff's promotion and salary. Since turning down a loan request from a senior officer could be injurious to the junior staff member's career, the decision is unlikely to be based purely on the merits of the loan request. Sound banks typically have very strict guidelines that either clearly define strict loan conditions and criteria, transfer the decision out of the normal credit approval process (for example, to the human resources department or to the Board), or outright prohibit loans to any officer above a certain management level within the institution. This issue is covered further in chapter 6.

- *Directed lending*—External influences on management to lend to borrowers who would nor-

mally not meet reasonable credit criteria undermine the entire credit approval and control process. This can take the form of informal intervention by senior government officials in individual cases of special interest or formal, government-mandated credit to otherwise unattractive economic sectors without government compensation for the costs incurred, including lending that may have more political than economic justification such as prestige development projects and lending to small borrowers or to small or subsistence level agriculture. Government guarantees covering such debt are only as reliable as they are callable and adequately supported by the budgetary resources required to honor them. It is not reasonable to expect a professional management to take unreasonable risks. Once the cost of funding and operations has been paid, the normal return on assets for a sound, medium sized bank in a competitive, non-inflationary market is generally around 1 percent. This means that if it is encouraged to compromise its credit standards so that only one out of every hundred new loans (on average) is not repaid, its profitability is wiped out, along with its ability to maintain its level of support to the economically viable sectors of the economy. If it is to survive despite this compromising of sound lending practices to a particular sector, then it must compensate through a cross-subsidy from its other business, requiring it to raise its rates to other sectors or reduce its willingness to accept risk from other sectors, in either case impairing its competitive ability and that of its clients. If a bank is found to be involved in significant amounts of directed lending, there is a likelihood that the bank may be insolvent.

- *Documentation practices*—Obviously, a bank that fails to document its claims on borrowers may have difficulty recovering its loans. A loan agreement that spells out every detail of the agreement is required under a British-style common law system, since the law must actually be written into the contract. In countries that have inherited a Napoleonic code that predefines many aspects of contract law, including the parties' obligations and legal remedies, a legally binding contract need only conform to the relevant code and spell out the date of the agreement, the location of signing, the amount borrowed, the identity and location of the borrower, the calculation base for interest, and the terms of repayment. In principle, it is sound banking practice to document that the borrower has understood and accepted the terms and conditions of the loan and to ensure that the borrower

receives notice of any pending maturity. However, this is still often not followed in practice in many developing countries,¹⁷ even by major banks.¹⁸ The actual collectability of a loan portfolio thus is dependent on the bank's documentation practices, with systematic deficiencies not always known to the bank's own management.

- *Revaluation of collateral*—The general practice in developed countries is to reflect assets at the lower of cost or market. High inflation rates in some developing countries have relaxed this approach, allowing for assets, including the collateral used to support credit, to be revalued to sometimes arbitrarily high levels—for example, to theoretical replacement costs that may bear no relation to the actual realizable value of the asset. Since in many countries the borrowers' financial statements are still so unreliable that the banks rely almost exclusively on the value of collateral support, the revaluation of the value of this support can give the banks (and supervisory authorities) a false sense of security.

- *Recognition of impairment of value/loan loss reserves*—The establishment of a specific loan loss reserve on a particular troubled credit is a recognition that the market value of that asset has been impaired, and effectively reduces the book value of the loan (but not the lending bank's claim on the borrower) down to market. A test of the adequacy of a specific reserve is whether another financial institution—acting freely and with full information on the strengths, weaknesses, and loan history of the borrower—would be prepared to purchase the claim on the borrower against payment of the face amount of the loan outstanding less the reserve. Many countries show this reserve as a liability while continuing to show the loan at full face value as an asset. For analysis purposes, it should not make any difference to the ratio calculations whether a bad loan has been adequately reserved for or whether the unrecoverable portion has been written off, so it makes more sense to write the asset down to market by showing the reserve as a contra-asset, thus reducing the stated total loans outstanding, total assets, and total liabilities accordingly. (The regulatory reporting model shown in annex 1 and the analytical model shown in annex 4 show loan loss provisions as a contra-asset, netting them against total loans outstanding.¹⁹) The actual size of loan loss provisions should be determined according to an effective loan classification system, although in some countries an effective past-due aging system with a

reserve formula based on the time past due may be followed.²⁰ To be effective, the loan classification system should be driven by the internal risk management process rather than by the external auditing or regulatory inspection process.²¹ In some countries, loans may be written off when a reasonable determination is made that a loan is largely irrecoverable; any subsequent recovery can be credited to income. However, in other countries a formal write-off may be interpreted by the borrower or the legal system as recognition of elimination of the claim against the borrower; in such cases, writing off a problem loan is delayed until all hope has been definitively exhausted.²²

EXTERNAL FACTORS. In addition, several external factors can have a significant impact on the quality of a bank's loan portfolio and on the willingness of professional managements to lend.

- *A legal environment* that provides adequate and impartial enforcement of contractual agreements and support to lenders of seizure and liquidation of collateral duly pledged in support of defaulted loans, and a demonstrated willingness of the bank to use this process.²³

- *Credit information*—The availability of good credit history information from other banks can protect a bank from extending credit to proven defaulters, and the risk of curtailing the borrower's access to funds acts as a disincentive to renege on obligations. The sharing of confidential, factual credit information between lending banks is an important part of maintaining public credit discipline, and the absence of such a system is an indication of potential structural weakness. Such systems require adequate legal guidelines and can be expensive.²⁴

- *An auditing environment* that allows external auditors to test the value of risk assets and force the bank to provide adequate reserves against potential credit losses. In many countries, the external auditors are required to verify only that the bank is in compliance with statutory requirements—which is not helpful, particularly if these requirements have not evolved.

- *A tax environment* that allows the write-off of loans when no reasonable prospect of recovery exists, although all legal remedies have not been exhausted.

- *A prudential supervision* system that monitors the portfolio quality of supervised banks. Such monitoring should cover the existence of and compliance with sound documented policies and procedures and include tests of the real value of all

loans above a certain threshold and those identified as troubled within the bank or within other banks, plus statistical checks of all other loans.

Foreign Assets

Claims on a foreign obligor may be more difficult to enforce than claims on domestic obligors since exercising a claim through the legal system of the country where the obligor has the tangible assets needed to exercise the claim may be complicated, time-consuming, and expensive, and differing documentation standards may render domestic documents unenforceable. Similarly, claims in foreign currency may be subject to changing foreign exchange values or restrictions on convertibility. Foreign assets thus deserve separate attention and can either be shown on a line-by-line basis (as in annex 1) or may be shown in a separate section on the balance sheet or reported in the footnotes. The balance sheets of larger banks in developing countries should include at least the working balances in foreign correspondent banks that are needed to clear their clients' international trade transactions. In countries that are more financially secure, foreign exchange regulations may allow the holding of other foreign assets, including money market placements and buyer finance for exports. Some countries with restrictive foreign exchange regulations permit overseas branches, and the consolidated assets of overseas branches would show in this section. Evaluation of foreign assets thus depends on the practices within each country. The risks involved in a bank's foreign exposure can only be fairly evaluated if adequate information is available, and this is covered in greater detail in chapter 6.

Leased Assets

FINANCIAL LEASING ASSETS. In a financial lease, the bank buys plant or equipment at its clients' request and leases the plant or equipment to the client against periodic payments, somewhat akin to rent, that cover the normal interest cost and the depreciation on the plant or equipment. The lessee assumes the commercial risk of the transaction, while the bank expects that the lease contract will continue for a specific time and that it will be paid out in full over the life of the lease (possibly with a residual payment corresponding to the depreciated value of the plant or equipment at the end of the lease period), so it is essentially equivalent to a

secured term loan, covering the financing of the purchase of the plant or equipment, with identical credit risk considerations.

LESS ACCUMULATED DEPRECIATION. The amount of financial leases outstanding should correspond to the remaining value of the equipment being financed, with the accumulated depreciation generally corresponding to the principal payments on a term loan.

LESS LOSS RESERVES. A lease transaction may result in a credit loss if the lessee fails to honor the terms of the lease and leaves the bank with collateral that is either untraceable, improperly maintained, or that has limited resell value in the domestic market. The loan loss provisions would be offset against the financial leased assets where reserves are shown as contra-assets rather than as liability reserves.

Bonds and Other Fixed Interest Marketable Securities

DOMESTIC GOVERNMENT SECURITIES cover a wide range of risk and maturity profiles, as follows:

- *Treasury bills*—In a country where maturing treasury bills can be routinely redeemed at the bank's option or where an active secondary market exists that allows treasury bills to be sold at a fair value, these instruments may represent the lowest-risk, highest-liquidity assets in the bank's portfolio. If these bills form part of the bank's liquidity reserve and are rediscountable or salable in the secondary market, they should more appropriately appear under liquid assets. However, treasury bills that are not salable, redeemable, or discountable before maturity are not risk-free to the bank since they are illiquid if not close to maturity and create a rate risk since the bill's rate is fixed while market rates fluctuate.

- *Treasury bonds* or equivalent medium- or long-term instruments may be issued periodically by the treasury to fund the government deficit or to mop up excess market liquidity. In either case, as they should in theory not be redeemable before maturity unless called at the initiative of the treasury, they represent long-term investments by the bank that do not form part of the bank's liquid assets unless they are readily marketable at a reasonable price or usable to secure loans from the central bank.

- *Other government securities* can include any other security that carries the full faith and credit of the government. These may include special pur-

pose bonds,²⁵ securities issued to replace debt as part of a restructuring program,²⁶ or bonds of the country's government-owned agricultural bank that are guaranteed by the government.

- *Local governments* represent a higher-risk category than the treasury or the central government. Government debt service is based on the ability of the borrowing government to raise tax revenues, which may not be feasible at the local level. Significant investments in local government securities should be an invitation to further questioning.

- *Bonds issued by state-owned enterprises* may be categorized by the country's regulatory authorities as eligible assets for liquidity ratio purposes. However, in many countries the government's budget does not have the resources to pay out such bonds should its implied or formal guarantee be called (assuming the bank can politically call a government guarantee), so bank investments in parastatals may substitute for budgetary allocations (or closure if they are not viable) rather than rational bank investments. Such bonds should not be included in liquid instruments for analysis purposes unless they are fully guaranteed by the government and discountable without penalty at the central bank.

SECURITIES ISSUED BY OTHERS. Bonds and other long-term financial instruments may in many countries be issued by corporations or other non-government entities. These may represent higher-than-normal-risk loans to customers, since there is unlikely to be any collateral support or formal loan agreement between the issuer and the bank. Typically, only the best companies may issue their own debt instruments.²⁷

OWN DEBT SECURITIES. In developed markets, banks issue commercial paper and other debt instruments. This activity generally requires own debt securities to be maintained in inventory and may require the bank to make a secondary market by buying back securities prior to maturity. Rather than constantly adjusting the liability under bonds and other negotiable debt securities issued, these transitory holdings may be carried as assets. Clearly, the amount should be relatively small compared to the amount of bonds issued.

Equity Investments

Equity investments fall into four broad categories based on the nature, length, and extent of the investment. These are broken down in some detail in the sample regulatory report in annex 1. Note that equity securities held in trust for clients are

not included in the balance sheet since the beneficial owners of such securities are the bank's clients, not the bank itself. This distinction may become blurred, however, if the bank actually votes the shares it is holding on behalf of its clients or if the bank in some way guarantees the investment—for example, through an automatic buy-back arrangement. The three main groupings are as follows:

SHARES AND OTHER NON-FIXED INTEREST MARKETABLE SECURITIES cover short-term holdings of stock as part of the Bank's function as a participant in the stock market (although such activity may be severely limited, as in the U.S. under the Glass-Steagal Act).

- *Ordinary trading position* represents stocks and other equity securities that are in the bank's inventory as stockbroker. This assumes that while the bank is the beneficial owner for the time that the shares are in inventory, the holding is temporary and the bank does not exercise the prerogatives of ownership. The size of this account should remain relatively stable over time since the bank will normally seek to maintain a controlled level of inventory.

- *Temporary holdings undergoing placement*—In some countries, banks perform the merchant banking function of bringing a stock issue to market—the bank buys all or a major portion of the stock issue from its client, then resells the issue to investors. The risk for the bank is that the issue will not sell at a price above what the bank paid for it, thus leaving the bank with a trading loss or with an unwanted shareholding in its client. The size of this account may fluctuate quite substantially between accounting periods since these transactions are typically large and infrequent.

- *Other variable yield securities* include transitory stock holdings that are not otherwise accounted for.

OWN SHARES. In some countries, a bank may buy and sell its own shares. Rather than constantly adjusting the outstanding capital, the market value of any shares purchased will be reflected here in assets. Clearly, the repurchase of own shares represents a reduction in the outstanding capital of the bank and should be netted against primary capital for calculating capital adequacy.²⁸

PARTICIPATING INTERESTS in companies may be normal investments in unconsolidated subsidiaries engaged in complementary business, speculative investments in non-complementary companies or to encourage companies to concentrate their banking business with the investing bank, or in-

terests that result from equity funding of troubled clients. A minority equity investment may subject a bank to damage to its reputation if it fails, even though the bank may not have sufficient influence over management to prevent the failure. Such investments should be carried at the lower of cost or market.

- *In other credit institutions*—In effect, investment in another credit institution where the invested capital will be leveraged based on the prevailing capital adequacy requirements represents a transfer of capital to the affiliate, where the capital transferred is no longer available to the parent to support unforeseen losses. Such investments should thus be netted against the parent bank's primary capital for determining capital adequacy. In some countries, this may be modified slightly by setting a limit under which the investment is not netted against the parent's capital.

- *In other business undertakings*—Where these investments are in non-financial enterprises, they carry at least the risk characteristics of loans. In some countries, these may represent equity injections needed to enable a borrower to meet loan obligations, so may be a sign of weakness.

- *Other financial investments* represents the usual catch-all.

MAJORITY INTEREST. Investments of 51 percent or more in the outstanding shares should be consolidated with the bank's financial statements in the consolidated statements but will show separately on interim and unconsolidated statements. The same considerations apply as for participating interests above, except that investments of 51 percent or more in the outstanding stock of a subsidiary convey ownership control.

Intangible Assets

Certain expenses are incurred during the start-up or the acquisition of a bank that do not result in any tangible asset and can only be recovered through the long term profitability of the institution. These "assets" are really deferred expenses and have no marketable value, so in effect the bank's capital is overstated by the amount of these "assets" carried on the balance sheet.

CONSOLIDATION GOODWILL results from the acquisition of a subsidiary in which the acquiring bank pays more than the net book value of the shares acquired, thus recognizing the value of the market reputation, market position, or particular skills of the staff of the acquired institution. This goodwill should be amortized over a fixed period of time

with the balance sheet line item showing the amount net of accumulated amortization, although some countries deviate from this practice (see "Amortization of Consolidated Goodwill," chapter 5).

OTHER INTANGIBLE ASSETS typically include formation expenses—the costs involved in establishing a bank that are not part of the normal operating expenses of a going concern. Such expenses can include the legal fees involved in chartering and licensing the bank, the costs of acquiring physical facilities, and the costs of locating the staff needed to start the bank.

Since these assets have no tangible value, they should be deducted from primary capital for determining capital adequacy.

Tangible Assets

BANKING ASSETS. Fixed or tangible assets represent the bank's investment in the physical facilities and equipment needed to conduct its business. These represent longer-term investments that are generally illiquid, may be special purpose and of limited value to potential non-bank users, and are not directly income-producing.²⁹ Such assets should be funded by equity rather than by deposits, and some regulatory systems place limits on the ratio between equity and the investment in fixed assets.³⁰ Undercapitalized banks thus may use deposits to fund a portion of their fixed assets.

In many countries, tangible assets are shown undifferentiated and net of depreciation. This may be justifiable from the perspective that, unlike for a manufacturing company, plant and equipment historically formed a small portion of total bank assets. However, with the introduction of automated transaction processing and the upgrading of branch facilities to meet rising world standards, this category of assets is becoming more significant and can be manipulated through depreciation, revaluation, or sale-and-lease-back, so a fairly detailed breakdown (as suggested in annex 1) is desirable—if rarely available—from published sources in developing countries, although others take the analysis a step further and require a breakdown of purchases and sales of fixed assets. Only property used in the normal course of banking business should be included—speculative real estate is not a normal bank asset, nor is property seized from defaulting clients unless it is converted to normal bank usage.

- *Land and buildings*—Land under the bank's buildings is a quasi-permanent investment that retains its value and is not subject to depreciation.

Buildings include head office and any branches, operations centers, training facilities, and other legitimate bank buildings. These are normally depreciated over a period of 20 to 30 years, depending on the accounting practices in the country. Clearly, the value of a building is in its availability for use by the bank and only rarely as a salable asset. Maintenance is thus important, as is compliance with effective building codes, fire protection, and insurance. These cannot be determined from financial statements, although the external audit practices in more developed countries include evaluation of potential business risks, including the above. Comments on such deficiencies should appear in the management letter. If depreciation appears separately, then evaluation of the annual depreciation levels can confirm whether depreciation fluctuates significantly to counteract changing operating income levels.

Land and buildings may conservatively be carried at the lesser of acquisition cost or market. In an inflationary environment, however, this results in an understatement of the current value of older assets, providing a "hidden reserve" in that the real market value of the assets, assuming they were sold, is significantly higher than the reported book value. In some countries, the bank may choose when to recognize this hidden reserve for financial statement purposes. Such discretion can camouflage deteriorations in operating performance that may not become apparent until all available revaluation opportunities have been exhausted, by which time the deteriorating trends in operating performance may have become irreversible.

Real estate represents protection against inflation. In an inflationary environment or one that is not conducive to normal banking, management may be tempted to overinvest in land and buildings. An excessive level of such assets in such an environment should raise questions. Staff housing represents an important employee benefit in many countries, and the value of housing provided to staff may become an important part of the bank's fixed assets. These are equally subject to revaluation.

The revaluation of assets to create revaluation reserves generally results in taxable income, thus increasing tax expense. Since the revaluation is non-cash income while tax payments are very definitely cash expenses, the net effect of such a revaluation is to cause an outflow of cash. Since the underlying assets have the same market value with or without the revaluation, the conversion of hidden reserves to disclosed reserves is less than

at par by the amount of the tax payment, thus resulting in a reduction in the intrinsic net worth of the bank. Such revaluations thus aggravate rather than solve performance problems. For the analyst to identify such revaluations, the related increase in equity should be reported as a separate category in the capital area below or in the statement of profit and loss (see chapter 5).

- *Equipment*—Automation of the bank's production facility (back-office that processes banking transactions and maintains the accounting records) has added significantly to equipment. Effectively choosing or developing adequate software, acquiring the appropriate hardware, and maintaining both has become a major expense and a significant factor in a bank's ability to control staffing costs and compete on service in its market. The *technological risk* of automation has become significant; yet managements of smaller banks that have not been burned by failed automation projects often underestimate the risks involved. This is particularly troublesome in developing countries where hardware vendors may be pushing large, outdated systems, the power supply and service support may be erratic, and local access to vendors of established banking software may not exist.³¹ Underinvestment in automation may improve the operating expenses to total assets ratio in the short term (as discussed in chapter 2) but will prevent the bank from retaining its competitive position over the longer term. Overinvestment, either through introduction of systems with significantly greater capacity or capability than is needed during the life of the project or through attempting to be at the leading edge of technology (as opposed to the much cheaper one step behind), can deplete the financial resources available for such investment, may lock the bank into inappropriate technology, and may stretch management expertise excessively. Evaluating equipment expense thus requires an understanding of the bank's automation strategy and management capacity.

Transportation equipment can be significant for banks with large rural branch networks in countries with poor road systems. Vehicles are also a popular employee perk, particularly in government-controlled banks or in countries with high personal income tax rates.

- *Furniture and fixtures* include the value of desks, chairs, and other normal office furniture, as well as office partitions and decorations. Depreciation life is typically over five years. The accuracy of this category of assets depends on the effectiveness of the bank's inventory control system,

and losses of furniture can be a significant drain on a bank's resources.

- *Construction in progress* represents assets for which often significant expenses have been incurred (in the form of progress payments), yet that are not usable to the institution.

- *Less accumulated depreciation*, if available, is generally not broken down by individual asset type, and furniture and equipment may be shown net of accumulated depreciation. Clearly, in the absence of effective regulatory controls or application of generally accepted accounting standards, the depreciation taken in any given year may be varied to offset changes in operating performance. Transparency is thus most desirable.

NON-BANKING TANGIBLE ASSETS typically include land and buildings that were intentionally or unintentionally acquired for purposes other than use in the normal course of banking business. These assets may represent foreclosed property pending sale or speculative investments. The regulatory framework should contain prudential limits on voluntary investment in non-bank land and buildings and on the length of time during which foreclosed property can be retained by the bank, so this category should be small.³² The effectiveness of any prudential limits on such investments should be questioned if this balance sheet item becomes material.

Other Assets

Assets that are not included elsewhere in the balance sheet are generally consolidated under one or more groups, such as other assets. Some may be broken out as separate line items, with the rest consolidated into a catch-all category that can hide a multitude of sins. In some banks, assets other than those listed above can represent a major balance sheet line item and can include the following:

ITEMS IN SUSPENSE include unreconciled entries in the bank's accounting system. This entry should be small, with any significant amount raising serious questions on the effectiveness of the bank's internal controls.

OTHER ASSETS include a number of small items that are not otherwise accounted for, and should normally be small. However, in some banks with severe internal control problems this may be the single largest entry on the balance sheet! The analyst should explore any significant amounts in this category, with some of the most likely sources being:

- *Due from domestic branches* may either appear as a separate line item or be consolidated in other assets. Branches and head office departments transmit payments to each other, generally through an internal clearing, proof, or waste system. For example, branches initiate internal check clearings to which the drawee branch or department will respond only some time later by clearing its side of the transaction, resulting in a temporary due from branches on the initiating office's books. This is a paper-intensive operation that must be well managed, or the number of items pending clearing may become substantial. In theory, proper consolidation should net the due from and due to branches, leaving a single net asset or liability figure that should reflect normal reconciliation differences. In practice, some banks report the gross asset and liability³³; if the bank has lost control over its internal clearing system, these items can become major, distorting total assets and related ratio analysis. The author prefers the due from and due to branches line items to be netted in published financial statements and for analysis purposes but reported as gross figures in regulatory reports so that any loss of control can be spotted by bank supervisors.

- *Items in transit* in the sample reporting format in annex 1 are shown under loans to credit institutions (above). However, the financial reporting practices in many counties show these items under other assets. Included are checks and other negotiable instruments that have been purchased from clients, generally with recourse, that are drawn on other banks, and that are in the process of clearing or collection. In general, the risk involved in these items is low if proper credit procedures and operational controls are in place ensuring that these items are cleared within the local legal guidelines, so these assets sometimes appear under current or no-risk assets. However, since these transactions represent the result of normal bank operations and are thus fairly stable if the bank continues in business, the volume is not amenable to management for liquidity purposes, and a badly managed bank may deviate from normal banking practices sufficiently for these items to represent a significant credit or operational risk. This category of assets is thus more appropriately reported as part of the generally small category of assets with undefined risk and maturity characteristics at the end of assets.

- *Interest receivable* represents interest accrued on outstanding loans that has not yet been received from the borrower or debited automati-

cally to an overdraft or loan account. This category includes interest accrued but not yet due according to the underlying terms and conditions on the bank's loans, and possibly past due interest. Depending on the methods of interest collection applicable in the country, this category may be significant in comparison with the bank's interest income.³⁴ This category may provide useful insight into the level of non-performing loans in countries where past due interest appears in this category, providing insight into management of the interest-collection process. For example, if normal credit terms call for quarterly interest payments by clients, then interest receivable significantly greater than the value of one quarter's interest accruals can indicate significant non-payments, particularly if this category is growing at a faster rate than the risk asset portfolio. In countries where overdraft financing is common, interest due may be debited directly to the overdraft account, thus increasing risk assets and hiding the extent of unpaid interest.

- *Other receivables* are generally not segregated and include fees receivable, rents due on bank property rented to third parties, and the like. These items are usually small and are generally included in other assets.

- *Accrual of prepaid expenses* includes, for example, the portion of insurance premiums paid that cover a time period after the financial statement date. This category is normally small and generally is included in other assets.

- *Precious metals* may be significant in some countries and for historical reasons may be shown as a separate line item here or even under cash in some countries, even if the amount is not significant.³⁵

This is not an exclusive list, and the analyst should question the nature of any significant unexplained "other assets."

Total Assets

The sum of the assets listed above provides the total assets of the bank. This figure is used as the denominator in many of the key ratio calculations and is the best single number for comparing the relative size of banks.

Hidden Reserves

Hidden reserves are, by definition, not shown on the balance sheet but are discussed here since they can have a major impact on the financial strength

of a banking institution. In essence, these are assets owned by the bank that are reflected in the assets and in capital at less than market value. These can include:

MARKETABLE EQUITY SECURITIES that are normally carried on the books of the bank at the lower of cost or market.³⁶ If these securities can be sold at any time at a substantial premium over the book value, then the bank has the option at any time of offsetting any losses through selling the securities and realizing the gain on the sale.³⁷ Liquidation of such hidden reserves may be identifiable if the bank's statement of profit and loss separates out loss/(gain) on sale of securities (as is the case with the sample in annex 1), since a large negative loss would indicate a sale of securities at more than their book value. It may not be visible, however, if the bank treats the gain as an extraordinary gain and offsets it directly against the extraordinary loss that the sale is intended to hide. Since the dividend stream from these shares will normally be related to the current market value rather than the book value, the return on these assets would be high and would support the bank's overall return on assets. Their sale thus increases current earnings by the gain but will depress future earnings. Detection of such hidden reserves may be possible, if they are significant, by looking at the dividends received as a percentage of equity holdings. If the dividend rate is significantly above prevailing market interest rates plus a few percent risk premium, the equity securities are probably undervalued, representing a hidden reserve. This will actually work better in developing markets than in developed markets, since developing markets often place little or no reliance on capital growth, so dividend payments are usually high.

MARKETABLE DEBT SECURITIES are generally held by the bank as part of its liquidity management process. In a market where interest rates have declined significantly, the bank may be able to sell long-term, high-yield debt securities, such as treasury bills, at significantly above the face value of the securities if the future interest stream is significantly higher than that on newer securities that were issued at prevailing market interest rates. Such a sale accelerates the income flow, thus increasing current year income at the expense of longer-term earnings. As with equity securities, it may be possible to detect undervaluation of marketable debt securities by comparing the interest earned to prevailing market rates if the statement of profit and loss is as detailed as the sample in annex 2.

REAL ESTATE. The bank's headquarters building may have been built some time ago, and the market value may be significantly higher than the book value. This gain can be realized through a sale and lease back of the building, in which the bank recognizes the gain on the appreciation of its office building. But in future years, the bank will be required to pay market rental rates on its office space, which may significantly increase operating expenses and depress future earnings. Such hidden reserves may be detectable through comparing the book value of a bank's land and buildings as a percentage of total assets to the equivalent percentage of peer banks, under the assumption that each bank should have proportionately similar facilities of similar value. This can work well to detect unusual hidden reserves within a bank in a peer group but is less effective in a highly inflationary environment in which the book value of all bank real estate is understated.

In each case, the liquidation of such hidden reserves shifts future earnings into the current period, distorting the analysis. Since future earnings are impaired, recognition of such hidden reserves generally means that the bank is solving a problem, which may be a simple desire to improve stability in sound but fluctuating earnings or may represent a stop-gap measure to paper over serious difficulties. While the analyst is unlikely to be able to determine accurately the extent of liquidation of hidden reserves or the extent of hidden reserves remaining purely from the financial data, any significant liquidation that is detected should be a warning of possible financial difficulties. Getting a feel for this area requires frank discussions with management and a good "feel" for the management style and atmosphere of the institution.

For hidden reserves to be significant and real, however, there has to be an effective market for debt and equity securities and for bank real estate. In most developing markets, the opportunities for setting up such hidden reserves are quite limited, and liquidating them may be possible only through a revaluation of assets since the assets forming the hidden reserve may in practice not be marketable.³⁸

Liabilities

Liabilities reflect the obligations that the bank has toward its providers of resources. These include depositors, other lenders, and trade creditors. In some countries (particularly those with a French history), resources provided by shareholders are

included in liabilities, while in others, capital (shareholders' equity) appears as a separate block on the same side of the balance sheet as liabilities. The form of the presentation is not significant, provided that the data content is adequate. This section will review each major category shown in box 4.2. Liabilities appear in order of increasing stability, with interbank borrowings, including overdrafts with the central bank, shown first as the most volatile, while transaction/business related payables that are a normal part of the banking business and tend to roll over continuously rank among the most stable and appear lower down.

Particular Sensitivity

Problems within the liability structure of a bank can seriously undermine a financial institution. For example:

LIQUIDITY RISK is liabilities that mature rapidly and require constant rolling over, increasing operating costs and vulnerability to changes in market liquidity and interest rates. While a bank's major source of interest differential income stems from transforming low-cost, short-term funds into higher-priced, longer-term loans, soundly managed banks ensure that their maturity-transformation activities bear a reasonable relationship to the maturity structure of their liabilities.

RATE RISK is a mismatch of maturities of assets and liabilities that can result in a rate risk if the cost of resources is volatile while the pricing on loans is more stable. To some extent, this is always the case—changes in loan rates in some market economies tend to lag behind changes in deposit and money market rates, so banks tend to be more profitable as market interest rates decline, and banks see their profits squeezed in a rising market. The extent of this lag in the matching of income and expense rates is directly related to the extent of the mismatching of maturities on assets and liabilities. In a developed market economy, a key function of a bank's treasury management department is to manage the maturity structure of the bank's liabilities based on the structure of the asset base, on expectations of market interest rate movements, and on the extent of the bank's willingness to incur maturity-gapping risk.

CONCENTRATION RISK. Dependence on a few large sources of funding can be as dangerous as dependence on repayment by a few large borrowers. The actuarial principles that apply to diversification of risks in the loan portfolio thus apply to

Box 4.2 Liabilities and Capital

Amounts owed to credit institutions

- Domestic central bank
 - Refinance (secured)
 - Unsecured, including overdrafts
- Commercial banks
 - Repayable on demand
 - With agreed maturity or notice
- Other financial institutions
 - Repayable on demand
 - With agreed maturity or notice
- Borrowings from international financial agencies

Amounts owed to customers

- Sight deposits including all checking accounts
- Time deposits with agreed maturity dates
 - With original maturity of one year or less
 - With original maturity of over one year
- Savings deposits *excluding* checking accounts
 - Repayable on demand
 - With agreed notice of one year or less
 - With agreed notice of over one year
- Other deposits including CDs
 - With original maturity of one year or less
 - With original maturity of over one year

Bonds and other negotiable securities issued

- Bonds
- Other unsubordinated, unsecured debt

Other liabilities

- Interest payable
- Taxes payable
- Items in suspense (excluding internal accounts)
- Credit items in course of transmission
- Other liabilities

Accruals and deferred income

- Unearned income, discounts, and premia
- Accrued expenses
- Bonuses and other prior year staff benefits

Provisions

- Provisions for other credit losses
- Provisions for interest not yet received
- Legal claims relating to the reporting period
- Other provisions

Subordinated liabilities

- Due in five years or less
- Due in over five years

Minority interest

Dividends payable

Total liabilities

liabilities. Some analysis of the stability of any funding source that exceeds, for example, 10 per cent of the bank's total funding is advisable.

Amounts Owed to Credit Institutions

Normal liquidity management may require short-term borrowings from the money market or even emergency support from the central bank.

DOMESTIC CENTRAL BANK may in the normal course of business include funding through rediscount of commercial trade paper, funding for preferential loan programs, discount of government securities, or temporary overdraft facilities or other short-term funding as temporary liquidity support.

- *Refinance*—In some countries (generally those with a French influence), the central bank has encouraged the development of trade finance through the rediscounting of accepted trade paper, often at below-market rates. The liability to the central bank may be reported as a separate line item on the balance sheet, often with the caption "as per contra," or may be reported off-balance-sheet or in the footnotes. It is a real liability and should be shown on-balance-sheet for analysis purposes.

- *Unsecured*—Under normal circumstances, a bank should not show an overdraft with the central bank—quite the opposite, since the bank should be maintaining liquidity reserves on deposit with the central bank. Overdrafts and secured loans may be an indication of central bank support for a bank in difficulty. Prolonged support may suggest that the central bank is unwilling or unable to respond effectively to a troubled bank.

COMMERCIAL BANKS. Interbank borrowings are a normal part of a bank's treasury management in countries with active money markets:

- *Repayable on demand*—Deposits from other banks usually mean local currency balances maintained by foreign correspondent banks' in their working accounts with the bank; or, in a finance company, may reflect the funding provided by a parent bank.

- *With agreed maturity or at call*—Some banks are more effective deposit generators while others are more effective lenders. Surplus banks often include conservatively managed older banks with large branch networks and government-owned banks that have a monopoly on government deposits. Deficit banks typically include the local branches of foreign banks. Since a branch network is expensive to develop, it may be cheaper for a

prime bank able to command the lowest money market rates to fund incremental resources in the money market rather than through additional branch expansion. Interbank money market placements, as these are called, typically are short-term—even in the most sophisticated of financial markets, interbank placements are predominantly under six months in duration.

Significant interbank borrowings by a weaker bank can indicate that it has overextended its lending or has a market credibility problem (possibly a run if the increase is sudden and offset by declining deposit liabilities), in which case it may be paying above-market rates to incautious banks with surpluses. Alternatively, it may be a captive subsidiary of a larger bank and is being used to park loans, possibly at higher rates than are legally admissible for the parent. Large interbank borrowings by domestic banks in developing countries thus require special attention by the analyst.

The sample regulatory report consistently separates banks from financial institutions. This helps identify situations where a bank is placing funds with a "lesser" institution and provides some segregation between interbank and funding of subsidiaries and affiliates.

BORROWINGS FROM INTERNATIONAL AGENCIES generally represent off-shore borrowings to finance industrial or agricultural development. These off-shore resources can entail a foreign exchange risk that may not be fully recognized by the borrowing institution and which the borrowing institution may not have the tools or authority to manage. Quite consistently, off-shore funding of agricultural and development banks in developing countries that have not been able to maintain the parity of their currency vis-à-vis the foreign currency involved has resulted in (a) direct foreign exchange losses for the bank where the bank has assumed the foreign exchange risk, (b) indirect foreign exchange losses through higher client default rates where the foreign exchange risk has been passed through to the bank's clients (both requiring recapitalization by the government), or (c) foreign exchange losses in the central bank or treasury where the foreign exchange risk has been guaranteed by the government.³⁹ In addition, such borrowings have encouraged banks to overextend themselves without developing a domestic resource base. Quite consistently, well-managed private institutions have strictly limited their reliance on such funding.

Amounts Owed to Customers

The core of the resources available to a commercial bank are in the form of deposits mobilized from the public. These can be presented in financial statements either by source or by type of deposit. Ideally, if one presentation appears in the balance sheet, then the other should be shown in the footnotes. Both should be available to the bank supervisors. The source and composition data by itself may not show strengths or weaknesses: the more revealing analysis involves the evolution of time series data on the bank and comparison of deposit composition against peer group averages.

SOURCES OF DEPOSITS are rarely shown in enough detail to identify concentrations, but some categories can help explain the nature of the bank's business. For example:

- *Government deposits* can be significant in a bank that acts as the government's clearing bank. However, government payrolls bunched at month end can cause major fluctuations in deposit levels (and the quality of teller services provided to clients) during the month. Such banks cannot lend these temporary funds, much of which may show as vault cash, and they may show higher than average (and illusory) liquidity.
- *State-owned enterprises* may represent a potentially large source of deposits. However, experience in some countries has shown that these can be directly and indirectly price-sensitive and that dependence on such deposits can represent a weakness rather than a strength.
- *Private sector deposits* may form the largest segment of deposits and generally represent the most diversified and stable source of funding in a developed banking system. In developing countries, however, these may represent a smaller share of funding and may be insignificant in countries where public confidence in the banking system is low.⁴⁰

TYPES OF DEPOSITS. An alternative and more common presentation is by type of deposit without regard for the source (as is shown in the example in annex 1). Since longer-term deposits are generally more expensive, the composition of the deposit base is a reflection of national savings patterns and the depository bank's marketing efforts. Generally, a bank will seek to balance the lower cost of short-term deposits against the greater stability of higher-cost, longer-term deposits. A change in deposit composition over time can indicate changing management policy. For example, if a

bank expects market interest rates to decline, it may emphasize short-term deposits and discourage longer-term deposits (possibly by flattening the yield curve) so as to reduce average maturities, in the expectation that funding costs will decline. Conversely, expectations of a rising interest rate market may cause the bank to emphasize longer-term deposits so as to lock in a relatively low current rate for as long as possible before the expected rise. If a change in deposit structure is detected, a comparison with peer banks in the same market is needed to decide whether this change reflects a generalized change or whether the bank is diverging from the market.

- *Demand deposits* reflect clients' working balances and are thus transaction oriented. As such, they are withdrawable at any time and are, in theory, the most volatile source of funds. In practice, however, these balances will tend to vary more with general economic activity than with interest rates, so long as market rates do not climb too high and the bank remains sound. Generally, such deposits do not earn interest.

- *Call deposits*, typically, are corporate or institutional deposits that have no predetermined maturity but may be withdrawn with a given number of days' notice. In effect, these are corporate savings accounts, but the large size of potential withdrawals may cause the bank to require a few days to re-fund itself. Depending on the country, call deposits that are not otherwise labeled have a two or three day advance notice (or call), while longer call periods of seven or more days will carry progressively higher interest rates.⁴¹

- *Time deposits* generally are subject to minima, mature after a predetermined period, pay the highest deposit rate, and are the most rate-sensitive form of deposit. They reflect corporate and larger-scale private savings and may either be consolidated into a single line entry on the balance sheet or broken into subcategories by maturity. If varying maturities are shown, they typically reflect the original maturity, not the time remaining to maturity.

- *Savings deposits* generally reflect small-scale private savings at rates between the demand deposit rate and time deposit rates. While this form of deposit is the most stable form of funding from the public, the lower average account size translates into higher operating cost per given amount of deposit than for time deposits, justifying a correspondingly lower interest rate.

- *Other deposits*—Restrictions on deposit taking lead to new products or services that do not fit the formal definition of deposits but achieve the

same objective. This category is for any short-term resources mobilized that do not fit one of the definitions above but represent deposit substitutes.

In the sample regulatory report in annex 1, deposits are separated between one year or less and over one year. This separation is somewhat arbitrary, but it does give some idea of the long-term-savings component of a bank's deposit base. More detailed information would normally be available through a full maturity-gapping analysis (as discussed in chapter 6).

The description of deposits makes frequent use of the word "generally." While the concepts are standard, the actual practice may vary by country since any government-mandated interest rate framework can cause distortions in the normal use of the various types of deposit accounts. These distortions may lead to the development of deposit-like instruments that duplicate the normal deposit structure. The particular country's regulatory environment and savings patterns determine what is "normal" for that country, and this can vary widely from country to country. Analysis thus focuses on comparing individual banks to their peers and looking for trends over a time series.

FOREIGN LIABILITIES may either be shown as a subset of the full balance sheet (see annex 1), or they may be shown separately from other liabilities due to the potential foreign exchange implications. This is particularly the case in the regulatory reporting formats of countries with exchange controls.

- *Overdrafts* on correspondent accounts should not exist since intentional overdrafts are not a normal form of international interbank financing. These can result from a foreign correspondent's confirmation of letters of credit before the introduction of restrictions on foreign exchange availability. The confirming correspondent bank has thus obligated itself to pay the beneficiary on behalf of the opening bank, which is unable to purchase the foreign exchange from the central bank to cover drawings. Such situations generally result in a loss of the opening bank's ability to get its letters of credit confirmed.

- *Convertible accounts* can include local currency accounts where the funding is of foreign origin. Thus, these accounts may be freely recon-vertible into foreign currency without any additional foreign exchange approval, or may be denominated in foreign currency.⁴²

- *Blocked accounts* can reflect amounts paid into the bank for transfer overseas but for which the

central bank has not provided the foreign exchange or where some regulation restricts their conversion and payment. These funds can entail a foreign exchange risk if the funds represent the local currency counter value of foreign currency payments that the bank has in some way issued a commitment to pay in the foreign currency amount. While the bank may have an agreement from the client to make up the foreign exchange loss, a client will unwillingly pay a significant additional amount relating to a commercial transaction that was completed years ago. If this category is material and explanations regarding the exchange risk exposure are missing from the footnotes, the analyst should obtain greater detail from management.

Bonds and Other Negotiable Securities Issued

If market conditions are stable, banks may raise long-term funds through the sale of long-term debt instruments to the public.

BONDS may be attractive to depositors who wish long-term investments with a steady income flow. These instruments are generally evidenced by a document (the bond), and interest is payable periodically, based on a coupon that can be cut from the bond and cashed on or after the interest payment date. Since no bank account that would identify the owner of the funds is needed, bonds are particularly attractive to depositors who wish anonymity. Bonds generally have maturities in years and can provide the bank with a stable source of longer-term funding. In some countries, specialized financial institutions issue bonds to fund preferential activities such as agricultural lending. Depending on the prevailing regulations, commercial banks may buy these bonds in lieu of conducting lending directly to agriculture.

OTHER includes any long-term, unsecured, unsubordinated debt instrument that achieves essentially the same objective, even if it is not called a bond.

Dues to Group Companies

Some countries require detailed disclosure of obligations to group companies in regulatory reports, while others identify these only if they represent a concentration (see annex 2). Other countries do not require information at all. Such exposure can be material in those banks that are part of a larger financial or commercial group of companies and may reflect informal—possibly undocumented—transfers of resources. This category appears in

some regulatory reporting formats since it indicates blending of the bank's financial condition with outside interests, a situation which may be detrimental to the bank's stability but should be unnecessary in countries where a clear separation exists between financial and non-financial institutions. Any significant entry in such a category should be a cause for questions to management.

Other Liabilities

The normal conduct of banking business results in a number of other liabilities that are not normally a concern unless they become material.

INTEREST PAYABLE reflects interest accrued on deposits that has not been paid by the bank. Since interest is payable periodically and not necessarily in-full on the bank's statement date, some amount of accrued but unpaid interest is normal. Inclusion of this item in other liabilities, whether separately or on a consolidated basis, is an indication that the bank is using proper accrual accounting methods. However, the amount should be reasonable based on the conditions in the country. For example, an amount equivalent to six months' interest in a country where interest is payable quarterly on all deposits is cause for concern.⁴³

TAXES PAYABLE. In countries where tax payments are contemporaneous (meaning that taxes are paid periodically throughout the year as the related income is earned), the liability for taxes payable should be insignificant. At the other extreme, no provision for taxes is made during the year, and the tax liability for a given year is only calculated during the following year once the accounting process has been completed.⁴⁴ Since few tax authorities would agree that income taxes are discretionary and directly related to the income produced during a specific period, these taxes should be accrued during that period, thus increasing other liabilities and reducing retained earnings. Since income taxes typically consume half of pre-tax earnings, the timing of tax calculations and payments can have a significant effect on the evaluation of the bank's retained earnings and thus its capital adequacy and even its solvency.

ITEMS IN SUSPENSE represents the corollary to the asset items in suspense and should not be significant if the bank's operating controls are functioning properly.

CREDIT ITEMS IN TRANSMISSION are pending payments to other banks—for example, where the client's account has been debited with the amount of a check collection received from another bank,

but where the corresponding payment to the other bank has not yet cleared through the interbank clearing system. This account should be stable over time as a percentage of assets.

OTHER LIABILITIES (also called *miscellaneous sundries*) are a catch-all. Some of the more significant items may be:

- *Due to domestic branches* is the offset to due from domestic branches discussed in the section on "other assets" (above).

- *Bills payable*, also known as *customer liability for acceptance*, includes drafts or other instruments issued or endorsed (aval) by the bank that are payable to the holders, who may be trade creditors of the bank's clients or independent investors who have purchased the paper. These generally arise out of normal trade business of the bank's clients. In some banking systems, this category can be quite significant and may be broken out as a separate category to offset the asset category of bills discounted, while in other systems they may only show under contingent liabilities. By adding its guarantee or aval to the paper, the bank has, in effect, assumed primary responsibility for payment at maturity, so such items should be reflected on the balance sheet under liabilities, and the corresponding claims on the bank's clients should be included in assets under loans to customers.

Accruals and Deferred Income

Proper accrual accounting requires that all income be matched to the time period during which the product or service is provided and all expenses matched to the time period during which the expenses were incurred. Since related cash movements may occur at different times, some adjustment may be needed to ensure that the timing of income and expenses is independent of cash movements.

UNEARNED INCOME includes income received in anticipation of a service or product to be provided. For example, if the bank charges a front-end fee for providing a safe-deposit box, then a client that pays the fee for one year of use in September will only use a quarter of his time during the fiscal year in which the fee is paid, and the bank will have provided the service for only a quarter of the year; thus, on an accrual basis, the bank only earned a quarter of the fee. The remaining three quarters should be included as a liability under unearned income.

UNEARNED DISCOUNTS AND PREMIA. A bill discounted during December may result in the full discount being taken at the purchase (the bank

buys the instrument at less than face value), even though the bill may only mature three months later in February. Since the discount is time related, the income should be spread on a pro-rata basis over the two fiscal years, resulting in an accrual adjustment at the end of December.

ACCRUED EXPENSES include accrual of periodic payments due at the end of a use cycle, such as rents payable at the end of each period, where the bank will have use of the facilities and thus incur the obligation to pay for them during the fiscal year, even though actual payment may only take place in the next fiscal year.

BONUSES AND BENEFITS PAYABLE. Staff and directors' bonuses may be tied to the financial performance of the bank, so may be quite predictable. Such expenses should be accrued (at least as an estimation) over the period during which the income that determines their size is earned.

Provisions

SPECIFIC LOAN LOSS RESERVES correct the value of the bank's risk assets to take account of the impairments in recoverable value of specific loans or investments. Since the reserve relates to specific, known problems in the loan portfolio, it is not available to support unforeseen problems and thus is not equivalent to capital. Some regulatory authorities require that all loan loss reserves appear here under liabilities. As indicated above, this causes assets and liabilities to be overstated, which may cause distortions if the amounts are large or if all banks within the comparison base are not treating loan loss reserves in the same way. Providing that such reserves are weighted (see annex 7) at negative 100 percent for capital adequacy purposes (in effect reducing the loans to customers by the amount of the reserve), then capital adequacy calculations will not be distorted.

If specific loan loss reserves are shown as a contra-asset (as in annex 1), any other credit risk related reserves—for example, on interbank lending—should be included here.

INTEREST RECEIVABLE. The increasingly accepted standard is that interest accrual on non-performing loans should be stopped once a loan or interest becomes 90 days past due, and interest accrued during that 90 days should be reversed. In some countries, however, the bank's bookkeeping records (rather than a formal loan agreement) represent the legal proof of the client's debt, so discontinuing accrual may void the bank's claim on its client for past due interest. A way around this

problem is to continue to charge the client's account for accrued interest—thus establishing the legal claim—but, in addition, pass the offset to an interest receivable provision rather than to income, thus avoiding overstatement of income.

LEGAL CLAIMS cover anticipated settlements on legal disputes in process—where a court judgment has not yet been rendered or where payment has not yet been paid, but an estimate of the likely outcome of the case can be made.

REVALUATION RESERVE (not shown in annex 1) covers the portion of the results of revaluation of fixed assets that may not be included in capital adequacy calculations. This field is missing from the sample regulatory reports because real estate values in the particular country on which this report is based were too uncertain to provide realistic, reliable market values for office buildings, values that are essential to a fair revaluation of assets. Bank buildings also are difficult to value because they can be quite specialized—few other institutions have a need for a large safe, for example. In countries with high inflation rates and functioning real estate markets, however, revaluing fixed assets may remove distortions caused by using historical property values in financial statements. Revaluation must be viewed with a critical eye if it represents a significant share of capital.

OTHER PROVISIONS include other items where the bank anticipates an expense that relates to the current or past period. For example, an expense such as depreciation may be accelerated for tax purposes compared to the depreciation method used in the bank's published financial statements. This reduces current taxable income and related taxes, thus increasing current period net income after tax. However, since the total amount of depreciation available remains unchanged, acceleration only defers taxes, which must be paid later since taxable income will be increased over book income during the period between completion of depreciation for tax purposes and completion for balance sheet purposes. Proper accounting practices call for a reserve to be established for this deferral of tax liability. This leaves the institution with the cash flow benefit of the deferred tax payment but prevents distortion of current period income in its published financial statements.

Subordinated Liabilities

Borrowings for which the lender's claim on the bank's assets is subordinated to other claimants, such as depositors and trade suppliers, in some

respects can resemble capital, provided that the terms provide for non-payment of principal and interest if the capital adequacy requirement would not be breached by such payments. The Basle Agreement (annex 7) contains a definition of subordinated debt and defines what can reasonably be included in secondary capital. Any subordinated debt that fails to meet the criteria listed in the Basle Agreement should be included here as a liability. This category may differentiate between amounts with remaining maturity of five years or fewer and amounts due in over five years since the latter may, according to the recommendations of the Basle Committee, be considered sufficiently stable for inclusion in secondary capital for capital adequacy purposes.

Minority Interest

This line should only show data in consolidated financial statements of a bank that has one or more subsidiaries. During consolidation, all assets, liabilities, and capital of the subsidiary are incorporated into the financial statements of the parent. If the parent owns less than 100 percent of the subsidiary, however, then a portion of the net worth of the subsidiary corresponding to the outside shareholding does not belong to the parent bank and should be backed out. This is done by reflecting the outside ownership in consolidated subsidiaries as a minority interest.

Dividends Payable

Dividends may be significant, particularly in countries where dividend payments occur only once a year. Note that some countries treat dividends as "after-period" expenses and retain these in undivided profits as of the year end balance sheet. Dividends may be discretionary and could arguably be retained in earnings over year end, but in a market economy where shareholders are private, allocation of a portion of earnings to dividends is essential to maintain the value of the bank's stock.

Total Liabilities

Countries that segregate liabilities from capital will generally show a balance sheet subtotal for total liabilities. The presence or absence of this subtotal has no analytical meaning other than to more clearly segregate own funds that do not have to be repaid from amounts owed to others that do require repayment.

Capital⁴⁵

Managing a business entails risks. In a financial institution, these risks take two forms: (a) risks that are determinable and reasonably predictable in the normal course of business, such as reductions in the value of assets in the loan portfolio, and (b) risks that are unpredictable, such as changes in the economic or competitive environment that may cause temporary difficulties for the bank until it can adjust.

The former should be dealt with through an ongoing evaluation of all troubled credits that should lead to specific loan loss reserves that directly offset known impairments of value in the asset portfolio. In addition, general loan loss reserves should be established to correspond to the bank's historical experience of troubled loans. The capital of the bank will not be fairly reported unless these loan loss reserves are correctly established and the book value of the bank's risk asset portfolio is correctly adjusted, favorable auditors' report notwithstanding.

This capital ensures that the bank has sufficient resources to surmount any unpredictable events and avoid insolvency during the adjustment process. Capital thus represents a cushion against the unforeseen. The size of this cushion has historically varied from country to country. There is growing pressure on the part of international regulators and bank supervisors to achieve consensus regarding acceptable levels of capital and methods of measurement. Box 4.3 provides a breakdown of the components of capital.

Box 4.3 Capital

Primary capital

Paid up capital

Subscribed capital

Less subscribed capital not yet paid

Capital reserve

Share premium account

Other

Revenue reserve

Undivided profit/(loss) from prior years

Preliminary prior year profit/(loss)

Less loss for the current year

Supplementary capital

General provisions

Profit for the current year

Other supplementary capital

Total capital

Cost of Capital

Since shareholders assume a subordinated position to depositors and other creditors, they assume a higher risk and should reasonably expect a higher reward than depositors for providing this equity cushion. Capital is thus an expensive source of funding. Since capital is intended to provide a cushion for risk asset impairments (or deposit liabilities used to fund the risk assets) any loan extended by the bank requires an allocation of a proportionate amount of the bank's equity corresponding to its capital adequacy level. The cost of this capital allocation (the dividends and retained earnings growth needed to attract capital) should be added to the interest cost of funding the loan and the operating cost of managing it to produce the total cost to the bank of providing the additional loan. Banks that fail to meet the Basle Agreement recommendations of 8 percent capital adequacy have a lower level of capital to allocate and thus have a competitive advantage over those banks who do meet the suggested level. This is one reason why banks usually argue for lowering capital adequacy requirements. Banks that are allowed to have below average capital thus have a competitive advantage over those that are more highly capitalized, and banks with excess capital in comparison to the market have difficulty competing while providing equivalent returns to the investors.

Capital Adequacy Formulae

Several approaches have been tried to equalize the competitive position of banks and assure uniformity in capital adequacy.

DEPOSIT BASED RATIOS. Historically, capital has been viewed as protection for depositors, so capital adequacy ratios were instituted requiring deposit takers to maintain capital in proportion to the level of deposits. Some countries have set different capital adequacy formulae for different classes of deposits, typically with higher requirements for demand deposits than for time or savings deposits.⁴⁶

ASSET BASED RATIOS. A more current approach is to view capital as the cushion that makes up for deficiencies in the real value of assets, with capital adequacy requirements based on the level of risk-weighted or total assets.

BASLE COMMITTEE. More recently, the Basle Committee on Banking Regulations and Supervisory Practices, representing the views of the Group of

Ten central banks, has suggested that different categories of assets be risk-weighted to determine an adjusted risk asset equivalent. For example, treasury bills of the national government are considered riskless assets and thus require no capital allocation. Fully secured housing loans have lower risk characteristics than similarly secured loans on commercial buildings since housing is general purpose and generally appreciates, while commercial buildings may be special purpose and generally depreciate in market value, particularly if not used for their original purpose. On the other hand, certain contingent liabilities that are off-balance-sheet items should be expected to turn into risk assets if the party guaranteed fails to meet its obligations, thus requiring the bank to advance funds, so the liability should be partly or wholly included in risk assets for capital adequacy determination. The Basle Committee has recommended a risk-weighted capital adequacy of 8 percent.

Primary Capital

PAID IN CAPITAL represents the par value of the stock outstanding and may be further broken down into common stock and preferred stock.

- *Authorized capital* has no bearing on capital adequacy and merely means that the institution does not need to obtain authority to issue more shares up to the authorized level.

- *Common stock* is true risk capital with the owner participating *pari passu* in the earnings of the bank through dividends, appreciation in the surpluses, and thus the market value of the stock. Shareholders of common stock also participate in any losses of the bank through depreciation in the value of their stock, limited only by the extent of their investment.

- *Preferred shares* generally provide for a senior ranking for dividend purposes and are not common in banks.

- *Cumulative preferred shares* provide for a fixed dividend with a built-in catch-up mechanism in case a dividend is skipped, which makes the dividend more like an interest payment, while participating preferred stock provide for a floor dividend level but allow participation *pari passu* with common stock in any dividends in excess of the floor. Participating cumulative preferred stock represent the best of all possible worlds—but are discriminatory vis-à-vis common stock and thus not usually tolerated in a publicly owned company.

- *Callable capital*—The shareholders of some banks have agreed to provide additional capital if

called to do so by management. Certain conditions or restrictions may apply, and the willingness and ability of shareholders to honor a call for additional capital in a time of crisis is a key determinant in the evaluation of whether this can be properly included in capital.

- *Less unpaid capital*—In countries that show authorized capital (as is the case with the sample in annex 1), the unpaid amount must be deducted to reach paid in capital. Since it is unlikely that shareholders will invest new capital in a bank in difficulty, possibly throwing good money after bad, unpaid capital is not actually available to support unforeseen losses, and so should be excluded.⁴⁷

CAPITAL RESERVES can either be shown separately, as is the case in the sample, or consolidated into paid in capital. The sample uses two subcategories:

- *Share premium account* (also known as a *surplus* or *share premium*) represents the premium that purchasers of new issues of shares have paid over the par value. In principle, a significant portion of the return to the investor in stock ownership should be in the form of capital appreciation rather than dividends. The retention of earnings within the bank provides for future growth of the bank, and by raising the book value of the bank's equity above the value of the paid in capital, capital gains are created that provide a return to the investor when the stock is sold.

In an open market where accurate financial information is available, the stock market value of existing shares should reflect the original issue price augmented by the value per share of the internally generated capital and anticipated future earnings. This market value will move up or down to reflect the market's expectation of changes in the future earnings capacity of the bank and the market's evaluation of the credibility of the bank's financial statements, the protection provided by the prudential supervision system, and the independence of management to take rational business decisions that reflect the best interests of all stockholders.

New issues of shares thus should command premia over the par value in proportion to this value added so that the new shareholders participate on an equal footing with existing shareholders. In this way, the new shareholders' funds are matched against the existing shareholders' funds with no penalty for the new shareholders and no dilution of the interests of existing shareholders.

In practice, the concept of capital gains is not accepted in countries with underdeveloped capi-

tal markets. If shareholders look predominantly or exclusively to dividend income, internal capital formation may be limited, market share premia minimal, and new issues may result in dilution of existing shareholder interests.

- *Other* includes any other funds received by the bank that are not generated from earnings nor from the sale of stock.⁴⁸

REVENUE RESERVES, also known as *retained earnings*, represent the internal generation of capital through retention of earnings. These accumulated surpluses of the bank must be free and unencumbered by any specific claims by creditors to qualify as effectively belonging to the shareholders and thus supplementing the share capital. Segregation varies from country to country, but regardless of the segmentation or the names used, the key element is that the increase in the assets over the liabilities as a result of the bank's operations results in an increase in the capital cushion available to support the institution in case of unforeseen events, and thus represents capital.

- *General reserves*—Some countries require that a certain portion of income be set aside as a general reserve. A typical formula is 10 percent of income until the paid in capital has been matched. There is no advantage to separating a general reserve from undivided profit other than to restrict dividends and force retention of earnings, thus forcing internal capital formation. The variant most often seen also sets a cap on the general reserve of equivalency with paid in capital, so has little relevance to a company that has been in existence for some time. Additionally, such an arbitrary requirement loses relevance in an inflationary environment, where profit retention may have to be much greater than the 10 percent legal requirement just to stay even with inflation. This practice appears to predate rigorous accounting and capital adequacy standards but is still in use in some countries.

- *Undivided profit* represents the accumulated retained earnings less any general reserve.

- *Less current year loss*—In principle, retained earnings should only be added to primary capital once they have been verified by the audit process and all appropriate taxes and other charges have been made. Current year earnings thus are shown either as a liability reserve somewhat akin to subordinated debt, or as supplementary capital (as is the case with the sample reports in annex 1). Current year losses, however, should be recognized as an impairment of capital immediately through a reduction in revenue reserves, since a develop-

ing problem within a bank that could impair its capital adequacy ratio or even its solvency should not await completion of the audited statements, which could be over a year after the loss becomes known.

WORKING CAPITAL/FOREIGN BANKS. Branches of foreign banks should have some form of substitute for capital.⁴⁹ This can be in the form of a regulatory requirement that assets exceed liabilities by a certain percentage or in the form of an allocation of resources from the parent bank to the local branch.⁵⁰ This is omitted from the sample in annex 1 since foreign branches are not currently permitted in the country involved. These resources can take two forms:

- *Deposits* made by the parent bank in the branch—this should be a net figure, since otherwise the branch could bypass the requirement by making a corresponding deposit with the parent.⁵¹ Clearly, to conform to the definition of capital and to achieve parity with locally incorporated banks, these deposits should be subordinated to other creditors.

- *Not in deposits* provides for recognition of computer systems or other assets that the parent bank may contribute, thus avoiding the need for the branch to incur the expense of acquiring such assets. Some limit on the ratio of deposits to non-deposits may be appropriate.

Supplementary Capital

Historical definitions of capital are quite restrictive, but in many countries this definition is being expanded to provide banks with greater flexibility in raising new capital. While the definition of capital should legitimately evolve with changes in the financial instruments available within each market, the key objective of capital should be maintained: namely, that it is the source of funding that is at greatest risk in case of financial difficulty within the bank, and both "principal" and "interest" should be subordinated to all other claims on the bank other than those of other shareholders. Capital and any permitted capital equivalents thus should be "permanent" unless the bank is over-capitalized to the point that a reduction in capital would not jeopardize capital adequacy requirements or the reasonable interests of creditors. The common categories are:

GENERAL PROVISIONS. Statistically, a certain percentage of all loans booked will ultimately prove unrecoverable. This statistical probability can be accounted for by establishing a general loan loss

reserve that may be based on a statistical analysis of recovery rates but does not relate in any specific loan or as yet identified problem. Pragmatically, loan losses are a normal part of banking business, and the reduction of income needed to set up and maintain this general loss reserve represents an appropriate matching of income and expense. Unfortunately, not all tax authorities accept this rationale, and the provisioning expense may not be accepted as a before-tax charge. Such general loan loss reserves protect against unforeseen (although probable) losses and may be included in supplementary capital.

COOPERATIVE MEMBER SHARES as shown in the sample regulatory report capture the otherwise unaccounted for surplus between assets and liabilities of cooperatives that do not have a formal capital base.

CURRENT YEAR INCOME represents profits accumulated during the year that have not yet been audited or subjected to mandatory allocations. These may build up during the year and be significant in the year end audited financial statements of banks that report a balance sheet prior to allocation of income.⁵² Banks that provide balance sheets after allocation may show only a residual amount corresponding to the remainder after earnings are allocated in round numbers to reserves and dividends.

It is important to know whether the balance sheet under analysis reflects the situation before or after the allocation of reserves. In some countries, the allocation process is incorporated into the statement of profit and loss, with the balance sheet shown after taxes, dividends, allocations to reserves, and employee incentive payments. In others, the profit and loss stops short and is complemented by a separate report on the distribution of income, with the balance sheet shown before distribution.

LONG-TERM SUBORDINATED DEBT should not be considered capital unless the terms of the loan agreement provide for (a) non-payment of interest if such payment would cause capital adequacy requirements to be breached and (b) repayment of principal in the form of stock rather than cash if repayment in cash would cause capital adequacy requirements to be breached (assuming fully adequate loan loss provisions).

ELIGIBLE REVALUATION RESERVES. Some countries permit banks to write up the value of land and buildings to current market value. This may be logical in an inflationary environment where the historical cost of buildings acquired some time in

the past may bear no resemblance to real current market values.⁵³ However, revaluation presents two problems:

- The *market value* cannot be accurately determined unless the building is sold. The revaluation thus relies on an appraisal, which may be influenced by the degree of financial difficulty that management may wish to hide or by a speculative building boom.

- If the *capital gains* resulting from the revaluation are passed through taxable income, net income is distorted and the tax liability may be increased, causing an outflow of cash from the bank. Attempts to manipulate the balance sheet through the revaluation of assets may improve the appearance of capital adequacy but may also impair the underlying financial condition of the bank. In effect, undervalued assets are better left as "hidden" reserves unless the prevailing tax laws do not treat such revaluations as taxable income.

It may be prudent to reverse any increases in revaluation reserves for ratio analysis, particularly for banks where too much discretion in revaluation practices may take place (see chapter 5).

OTHER SUPPLEMENTARY CAPITAL of one form or another is allowed in some countries. The key is that such capital represents funds that are free and unencumbered—the bank is under no obligation to repay them for some time to come.

Adjustments to Capital

Loans to and investments in related companies represent a transfer of capital available to support unusual losses (as described in chapter 6). This *de facto* reduction in the equity cushion available to the bank should be recognized in determining the capital adequacy ratio.

Contingent Liabilities / Off-Balance-Sheet

Banks routinely engage in transactions on behalf of their clients, in effect substituting their credit standing for that of their clients. This enables their clients to conduct business with third parties with whom these clients may have an insufficient track record to justify complete confidence. A bank thus guarantees the performance of its clients, and, while it does not initially provide cash, it nevertheless exposes itself to the risk of having to provide cash, and thus create a loan, should its client fail to perform vis-à-vis its business counterpart. These transactions are kept off-balance-sheet since no cash

changes hands and have until recently generally avoided inclusion in capital adequacy calculations. As a result, banks in countries with credit ceilings or capital adequacy requirements that restrict normal lending have been motivated to seek the fee income that such off-balance-sheet transactions generate, with the result that such transactions may become very significant compared to the size of the bank's balance sheet.

The sample regulatory report follows the structure of the Basle Agreement in dividing contingent liabilities by degree of risk for risk weighting purposes, rather than by instrument, as would more commonly be the case in published financial statements. The analyst should question bank management regarding any significant levels of contingent liabilities. Please note that the contingent liabilities listed in box 4.4 are given according to the author's perception of the degree of risk—the Basle Agreement should be referred to for definitive guidance.

Full Risk

GUARANTEES OF LOANS by other banks are used by some banks to allow a correspondent bank to extend credit to the issuing bank's clients without going through the normal credit analysis and approval process for that client, who may be unknown to the correspondent. The bank again substitutes its name for that of its client and incurs a risk essentially equivalent to that which it would have incurred had it advanced funds to its client. The beneficiary correspondent bank receives a right

to claim against the issuing bank rather than receiving automatic payment.⁵⁴

STAND-BY LETTERS OF CREDIT (L/C) are similar to documentary letters of credit and also come under ICC 400. However, no shipping documents are exchanged—instead, the beneficiary can draw based solely on a signed statement that a predetermined event has occurred (or not occurred, as the case may be). The wording of the statement must conform exactly to the sample wording provided in the L/C. If set up correctly, these documents provide a financial guarantee that the beneficiary can draw if the applicant fails to perform according to an underlying agreement, while the applicant is protected since any improper drawing by the beneficiary based on a fraudulent statement provides provable evidence of fraud that can be used in court. Unlike the documentary L/C (discussed in the next section), this type of L/C is not inherently collateralized nor self-liquidating and may run for an extended period. For example, if used in lieu of a percentage hold-back on a construction project, these may run until a year after completion of the project. Since the beneficiary controls the drawing, the bank's only defense is typographical differences in the wording of the statement (which the beneficiary can easily correct). The risk factor associated with stand-by L/Cs can be as high as that of a disbursed loan.

STAND-BY COMMITMENTS. For example, the commercial paper stand-by line backs the issuance of corporate commercial paper in the money market, placing the bank in the position of lender of last resort should the recipient of the commitment no longer be able to raise funds from the money market. This can be particularly troublesome if the bank has required a commitment fee or compensating balance on the undrawn amount of a credit without a proper loan document that spells out the conditions under which the funds can be drawn. Such commitments may be attractive to the bank since they produce fee income without a commensurate rise in the bank's assets, thus raising the return on assets, but excessive use may cause the bank to lose control of its liquidity management or the management of its credit risks.

DISCOUNT AND REDISCOUNT of trade bills are sometimes shown as off-balance-sheet items. As discussed above, a bank that discounts accepted trade drafts for its clients and rediscounts these through the central bank's rediscount window may not be advancing its own funds but is at risk should drawees of drafts default and the bank's clients (draw-

Box 4.4 Off-Balance-Sheet

Contingent liabilities

- Off-balance-sheet credit substitutes
- Medium-risk contingent liabilities
- Medium-/low-risk contingent liabilities
- Low-risk contingent liabilities
- Forward interest rate risk
 - Maturing one year or less
 - Maturing over one year
- Forward foreign exchange risk
 - Maturing one year or less
 - Maturing over one year

Future commitments

- Repurchase obligations
- Other

ers) for whom the bank discounted the trade bills not be able to reimburse the bank. Discounted and rediscounted trade bills that are off-balance-sheet or in the footnotes should be placed in the balance sheet for analytical purposes, with the discounted going to normal risk assets and the rediscounted into a due to central bank category.

Lesser Risk

COMMITMENTS. A bank may agree to advance funds to a client up to a specific amount, generally provided that certain conditions are met. The bank may thus be legally obligated to increase its credit outstanding to the client precisely when it should be cutting back, either because of a deterioration in the client's condition or in the bank's own liquidity position. In some countries, failure to honor a drawing under a committed line of credit where the client is in compliance with the conditions of the agreement can provide grounds for legal suit for breach of contract or impairment of business. *If properly structured*, the risk is less than that of normal credit, since the bank has the option of denying a drawing if the borrower is in violation of the covenants of the underlying loan agreement.

DOCUMENTARY LETTERS OF CREDIT,⁵⁵ which provide bank clients that are the purchasers of merchandise (the applicants) with the means of enabling the sellers of merchandise (beneficiaries) to receive payment against presentation to their own banks of the shipping documents that convey title to the merchandise being purchased by the applicants. The primary purpose of a documentary L/C is to control the exchange or title against payment between two business partners where insufficient mutual confidence or exchange controls preclude payment on open account or on a documentary collection basis. If handled properly, the bank retains title to the merchandise from the time it pays for the documents to the time it debits its client, and is thus fully collateralized with merchandise for which there is a predetermined buyer. However, if its client is unable to reimburse the bank, the bank may be forced to make a loan to its client, secured by collateral that may not be salable to anyone else at full value. In addition, the bank has the opportunity to make a mistake in the documentation that could subject it to risk. The role of the bank is restricted to processing documents that purport to conform to the documents required by the terms of the L/C. The bank is not involved in the underlying commercial transac-

tion unless it makes a mistake and prejudices the position of one of the parties. These transactions follow a standard set of rules coded in the International Chamber of Commerce Publication 400 issued in 1983.

Low Risk

STEAMSHIP OR AIRWAY GUARANTEES are issued by banks in favor of shipping companies or airlines to allow merchandise to be released prior to the receipt of the documents of title. This may be necessary to avoid demurrage charges and the risk of pilferage in situations where the bank has issued a letter of credit in favor of the shipper, but the documents of title that would be presented at the time of drawing under the L/C have not been shipped as quickly as the merchandise itself. This guarantee indemnifies the shipping company or airline against any claim resulting from their premature release of the merchandise. A bank would normally issue such guarantees only on behalf of clients in whom it has full confidence, and the risk should be recorded as any other risk until the original documents are received and the guarantee is recovered.

OTHER GUARANTEES can include guarantees that customs duties on imports, telephone bills, or any other obligation incurred by the bank's client will be paid when due. In each case, the bank is substituting its credit standing for that of its client and will be required to advance funds if the client defaults.

FORWARD INTEREST RATE CONTRACTS. In developed financial markets, banks can "lock in" their interest costs by forward interest rate contracts that in effect guarantee a given interest rate over a specific period of time. There is some question in the author's mind as to the practical use of such contracts, and some practical experience by some major international institutions may indicate that they are not worth the time and effort involved. Clearly, if a bank is relying on forward interest rate contracts to protect itself against interest rate risk, then it may have an opportunity cost if it protects itself against a rise in market rates only to see rates decline. Should rates rise, however, it faces a credit risk of the entity that provided the protection failing to honor the contract. The Basle Agreement recommends that such transactions be risk-weighted, if at a low level. This is an issue only in developed markets and will not generally be of significant concern to the reader.

FORWARD FOREIGN EXCHANGE CONTRACTS. As explained in the section on foreign exchange exposure reports (chapter 6), forward foreign exchange transactions do entail some risk, which is recognized in the Basle Agreement through risk weighting.

Forward Commitments

Sale and repurchase agreements involve a bank selling a security while agreeing to repurchase it at some point in the future. This sale and repurchase mechanism is used primarily for liquidity management. The risk is limited since both sale and repurchase represent an exchange of value involving cash and a marketable instrument that is generally of "undoubted" credit quality. However, since the repurchase price may differ from the market price at the time of repurchase, either as a result of changing market interest rates or a change in the credit standing of the issuer of the underlying security, there may be gains or losses on the transaction, so some risk does exist. Excessive activity in this area should be a cause for questions.

Notes

1. Zone A is generally defined as including those countries that are in the OECD plus those that have formal agreements with the IMF.

2. It should be noted that the practice rather than the principle is important. For example, a country's treasury issued five year bonds through the central bank, with a number of financial institutions understanding that these were discountable at the central bank. The central bank then tightened the money supply—and refused to discount bonds held by banks, leaving those banks who had cooperated with the treasury's funding efforts with a severe liquidity problem. This example underlines the importance of understanding both the letter and the practice of the banking and regulatory environment. Treasury bonds that are issued as part of the country's market liquidity management process should *not* be rediscountable at face value since this would void their use as a liquidity management instrument.

3. For example, the foreign placements with most of the banks in one African country rose substantially prior to a major devaluation of the domestic currency. This indicates that the banks may have procrastinated on their repatriation of foreign exchange earned from the country's exports, which would have protected their capital against erosion but may also have contributed to the devaluation.

4. The term *non-bank financial institution* (NBFI) is frequently used and generally includes any financial

institution that does not accept demand deposits. Specialized banks, such as agricultural or development banks, may also call themselves banks (thus not NBFIs), even though they provide only a limited range of banking services and both portfolio and maturity transformation characteristics that make them inherently less financially sound than commercial banks. From a risk standpoint, the separation is more logical between commercial banks and "others," rather than between banks and non-banks.

5. A series of failures among small institutions in a relatively well developed financial system threatened a domino effect among larger institutions that had unwisely responded to these failing institutions' thirst for funds. Unfortunately, all of these "unwise" institutions turned out to be indigenous, whereas the foreign owned banks had avoided the problem institutions. This presented the regulatory authorities with a political as well as an economic headache. Soundly managed banks take care to evaluate the risks in inter-institution funds placements and to establish strict credit limits. This process generally results in a tiering of the market in which the prime institutions can borrow from the money market at will and at low rates, while the weakest cannot borrow at any price, with the middle being the most affected by changes in market liquidity.

6. *Material*—Accounting practices generally include a test of materiality to determine whether a particular category of information is significant enough to be worth showing as a separate line item. Too high a level of detail, in which many small numbers are shown, actually reduces clarity, so numbers that are individually too small to have a material impact on the financial condition of the institution are generally grouped together under broader categories. This consolidation can be overdone—some of the Tunisian banks provided balance sheets in which "other assets" were among the largest balance sheet line items, and banks in Kenya generally consolidate all income and expense items into a single "net income" figure.

7. Although special circumstances may at least temporarily reverse this—for example, the resale value of a truck or lorry that is imported into a developing country market that had both price controls and import restrictions actually appreciated during use, although this appreciation would rapidly disappear if the import restrictions were lifted.

8. A figure of 60 percent is frequently used—since the appraised value may be some 60 percent of the purchase and installation cost, the actual amount lent may only be 36 percent of the cash required. While this may seem low, sound banking generally requires that the borrower maintain a debt to equity ratio of no more than 1:1 even with good clients in developed countries with sound infrastructures, so requiring a 1:1.78 ratio in a shallow market with uncertain legal support is not unreasonable, and not necessarily an indication of an uncompetitive market.

9. In the U.S., a borrower must specifically recognize the debt through a formal, signed agreement in order for the debt to be legally enforceable, so overdraft financing (other than to cover occasional client errors) is essentially nonexistent.

10. *Pari passu*—means equal ranking or equivalency. In case of a liquidation of collateral, the bank having the first lien or claim on a borrower's assets would receive payment first, while the bank having a second lien would receive payment only if the proceeds of the sale of the collateral exceeded the first bank's claim. If a bank grants *pari passu* status to another bank, then it agrees to be ranked equally; thus, in the event of a liquidation of collateral, the banks would share in the proceeds of the sale equally. This is common where two or more banks form a loan syndication in which each shares in the loan and in the collateral, but a bank that already has a first claim on assets is unlikely to voluntarily give up that right to allow a competitor into a banking relationship with one of its clients, and the second bank is unlikely to be comfortable with a subordinate collateral position.

11. In many countries, this form of financing to small scale or subsistence farmers has been provided by the informal market—for example, whereby a merchant or landlord may sell the farmer inputs against contractual delivery of the crop, which the merchant will then sell, providing payment to the farmer net of the outstanding bill for inputs. Such informal credit may arguably be the most efficient way of financing small scale agriculture.

12. Well managed banks will tend to lengthen the average maturity on funding liabilities in anticipation of an increase in market rates so as to lock in funds before rates rise by more than the maturity premium, while reducing average maturities if they anticipate a decline in market rates.

13. A classic example is the Dewy Dee scandal in the Philippines in the mid 1980s that effectively negated the presumed sanctity of character lending among the Chinese origin population.

14. Although some countries tolerate higher levels, this is usually for political rather than prudent economic reasons.

15. In each of the banks in which the author has worked, a letter of comfort was viewed as having no significant value in justifying the extension of credit.

16. The extreme example seen by the author was an institution that had a paid in capital of 20 million units of currency, loans to directors and shareholders of 140 million, and an accumulated loss of 300 million. This institution was still functioning, and the central bank, although belatedly aware of the situation, was reluctant to close it down.

17. Abuse was also not unusual in developed countries, resulting, for example, in the introduction of Truth in Lending legislation in the United States in 1969, which requires each lender to a private individual to obtain

the borrower's signature on a standard document that spells out the key elements of the loan, including amounts, maturity dates, and effective interest rates.

18. One country's largest national bank had updated its standard guarantee form, inadvertently inserting a clause that gave the guarantor the irrevocable right to cancel the guarantee on simply a 30 day written notice to the bank, regardless of any claims that might be outstanding, thus effectively voiding the instrument as a useful legal document. Other *major* developing country institutions have been seen to variously fail to spell out the interest calculation base on notes, to fill in amounts and due dates, and otherwise to ensure the legal sufficiency of documentation.

19. Alternative presentations show the loan loss provisions as a liability reserve, while some countries do not yet require disclosure of loan loss provisions on the balance sheet or even in the footnotes to financial statements.

20. The IMF recommends a system of *substandard*, *doubtful* and *loss*. However, the author recommends a five tier system starting with *normal* and *watch* categories, followed by the usual *substandard*, *doubtful*, and *loss* categories on the basis that all credits should be consciously rated at least annually, and a credit that is performing but has some documentation or negative trend symptoms may be worth identifying as a credit to watch more carefully so that corrective action can be taken before the credit moves down to *substandard*.

21. Ideally, the lending officer should be motivated to identify a potentially difficult situation and initiate corrective action before someone less familiar with the relationship can do so.

22. This tactic can be counterproductive as shown in the following example. A major hotel project failed, leaving a consortium of government owned banks facing a substantial loss (the developer had erected his hotel building on someone else's land). Rather than recognize the loss and sell the project at a steep discount, the banks held out for the full amount of their loans outstanding—and vetoed the attempted work-out. Years later the partially completed building is gradually disintegrating, along with its value as collateral.

23. For example, while many African countries have inherited a European style legal system that provides for the pledging of property and land to secure debt, and for the bank to seize and sell such property if the borrower defaults, in practice traditional social values may prevent the bank or its staff from actually implementing recourse under the legal process or the court system may not have adequate objectivity. Clearly, collateral as support in such countries carries a significantly higher risk than in countries where the rule of law is uniformly respected and applied.

24. An example is the excellent system developed in the Philippines with the support of the Central Bank. This system was developed using the Dun & Bradstreet

model, including the user fee structure, but had great difficulty achieving the economies of scale needed to cost justify such a system.

25. Such as Khaas certificates in Pakistan that are used to mobilize public savings to avoid excessive government dependence on bank financing.

26. Such as Public Registered Stock in Malawi used to replace a major company's debt.

27. Although countries emerging from tight, centrally planned economies are at particular risk, as was demonstrated by the perfume factory debacle in Ho Chi Minh City, Viet Nam, in which a non-financial entity took in large amounts as part of a pyramid scheme.

28. In the U.S., banks generally do not accept their own shares as collateral for loans and do not invest in their own shares unless it is part of a conscious reduction in the bank's capital base.

29. For example, a bank vault is an essential but expensive permanent feature of a bank branch but has little more than curiosity value to a non-bank alternate user of the property.

30. Such formal limits are of questionable value. For example, a limit of 150 percent of equity was neatly circumvented by a bank through a leasing subsidiary set up and funded by the bank to purchase and lease to the bank the computer equipment needed for its automation project.

31. This can reinforce the use of outdated decision-making processes based on choosing the hardware, then building the software to run on it. This approach represented the "conventional wisdom" in the 1960s and 1970s when hardware was relatively more expensive than software. Now, however, good software is often significantly more expensive than the hardware needed to run it, so the process should be to define automation needs, identify software that will accomplish the task (giving preference to software that will run on several types of equipment, particularly that supported locally), picking the hardware needed to run the software, and modifying internal procedures to fit the characteristics of the software.

32. Abuse of non-bank real estate holdings by some U.S. banks led to the introduction of a five year limit on retention of foreclosed property.

33. A government-owned commercial bank maintained the appearance of size superiority vis-à-vis the local operations of a large international bank by showing gross due-from-branches and due-to-branches figures in financial statements, thus inflating its assets and liabilities, while the international bank netted these line items. Once the figures for the nationalized commercial bank were corrected to net these two items, its size shrunk to significantly smaller than the foreign bank. This demonstrates differing priorities—the government owned bank is more concerned with the prestige of size, while the private bank was more concerned with performance in the form of return on assets (and possibly on maintaining a low profile).

34. For example, in a country where interest is due on all loans periodically throughout the year—for example, on a quarterly basis—and interest invoices are sent out well in advance to remind clients of the amount due, this category may be relatively small and reflect only the past due interest. However, if the practice in the country is to charge interest only once a year at or close to the bank's fiscal year end, to rely on the client's memory and to only contact the client if the interest remains unpaid several months after the due date (as tends to be the case with agricultural banks), then this category could represent most of the interest due as of year end.

35. Since the abolition of the gold standard, gold and other precious metals have increasingly been regarded as commodities that are subject to unpredictable price fluctuations, just like many other commodities, and that generate storage costs rather than interest. In addition, most banks do not have the metallurgical expertise to assure quality control on trading in precious metals. The notable exceptions are the major Swiss banks, some of which have full scale refining capabilities and in effect set the standard. This category may also be visible in banks that take in precious metals and jewelry as collateral for loans and may become the owner if the borrower defaults, but this is unlikely to be material.

36. For example, the bank that financed the formation of the Coca-Cola company received an equity participation as part of the transaction. It still carries these stocks at their original price at issue, which is insignificant compared to their current market value. In effect, the bank's capital base is understated by the amount of this unrealized capital gain.

37. A major Swiss bank suffered an extraordinary loss of some SFr 600 million in unauthorized foreign exchange trading a few years ago. However, this loss, although public knowledge, was not traceable in the bank's published financial statements, since it was covered through the liquidation of hidden reserves.

38. For example, a bank in Uganda has quite extensive banking facilities in Kampala that are carried on the balance sheet at a historical cost of next-to-nothing, given the high inflation rates that Uganda has experienced. If these facilities were carried at the replacement cost, the bank would be overcapitalized. However, since the facilities are probably not salable at present, this hidden reserve is likely to stay buried until the Ugandan economy improves significantly.

39. For example, the government may have guaranteed reimbursement of foreign exchange losses incurred by the institution in exchange for the institution's willingness to borrow the foreign exchange that the country needed more than the bank did. In some countries, the resultant foreign exchange losses have been so large that the government has procrastinated reimbursing the bank, thus impairing its financial position.

40. This is the case in Uganda, where the legacy of civil war and past breaches of bank confidentiality have

undermined public confidence in the financial system, resulting in essentially no deposits from the public.

41. Call deposits are not identified as such in the sample regulatory report. In the country for which this report was designed, savings accounts have included call options, in some cases longer than a year. Call deposits are thus consolidated into savings accounts. For example, U.S. Regulation Q for many years restricted the interest rates that could be paid on deposits. Large corporations could not get a fair return on their surplus funds, so they started trading funds between themselves, bypassing the bank intermediation process. In response, Citibank developed the certificate of deposit around 1970 as a way of competing for large corporate time deposits while circumventing the regulatory restrictions. As a more current example, Thai financial institutions are not permitted to take deposits from the public so instead issue promissory notes that serve the same purpose as time deposits but can be in small denominations and on call, thus equivalent to savings deposits.

42. For example, the Tanzanian export retention scheme on non-traditional exports allows the exporter to retain 50 percent of export earnings as a freely transferable deposit in foreign currency with the National Bank of Commerce (as of writing).

43. In one country in which NBFIs (non-bank financial institutions) had arranged large deposits from parastatal enterprises (not always on an arm's-length basis), bank examiners found that a number of these NBFIs failed to make interest payments when due—this line item was added to the monthly regulatory reporting format.

44. Algeria is an example—since taxes are calculated and paid well after the close of the fiscal year, the published year end financial statements overstate earnings and capital by the amount of this subsequent tax liability. Analysis of the capital adequacy and performance of Algerian banks from published financial statements thus requires the tax liability to be factored in, restating earnings and capital.

45. Also known as *net worth*, *equity*, or *capital and unimpaired reserves*, all of which are what is left over after liabilities are deducted from assets.

46. One country that has so far refused to change from this liability-based approach to the more common asset-based approach maintains that to base capital adequacy on assets is equivalent to assessing capital requirements on both liabilities and net worth, thus capital adequacy requirements on capital. This argument fails to match protection against the risk—the deposit liabilities are clearly defined, with the uncertainty that requires an equity cushion predominantly in the asset portfolio.

47. Some countries still show unpaid capital as an asset, based on local laws that make it a legal obligation of the shareholders to the institution. This is less appropriate

in a market economy, where a private shareholder may legally resist honoring a commitment to add capital to a failing institution, than in centrally planned economies, where the government was the sole shareholder and could not allow its bank to fail.

48. An example is the value of vehicles donated by an international aid program to a bank in a developing country, as was the case in Tanzania.

49. Using working capital as a substitute for forcing local incorporation while attempting to achieve a level playing field in terms of the imputed cost of capital on funding costs has some rationale. The problem has tended to be with the French and Japanese banks, which had a lower capital adequacy ratio and thus a lower cost of capital allocation to their funding cost. This has been one of the driving forces behind standardized capital adequacy requirements (probably more important than the prudential issue of capital cushion) and is becoming a moot point as this standardization proceeds.

50. For example, foreign bank branches operating in New York in the 1970s had to meet a "108 Requirement," in which assets had to be 108 percent or more of liabilities.

51. As was observed with a foreign bank in the Philippines some years ago, where in effect the entire branch "capital" had been deposited back with the parent bank.

52. As is common in French based countries.

53. Some highly developed countries have allowed hidden (meaning untraceable in the published financial statements) revaluations of assets to routinely mask the normal fluctuations in profitability and to level out income growth, thus presenting the public with the appearance of consistent, solid growth.

54. A variation of this approach can be used to circumvent lending ceilings—the bank encourages a large depositor to place funds directly with a large borrower by providing the depositor with the protection of a bank guarantee of the note. From the bank's accounting system, the "loan" and repayment are funds transfers executed at the request of its clients, and the guarantee is a contingent liability outside of the credit ceilings. The borrower pays a lower rate on the funds than it would pay on a straight loan from the bank, while the depositor receives a higher rate than would be normal for a deposit, so the bank makes a fairly high guarantee fee instead of interest differential income. This process thus sidesteps any interest rate controls and capital adequacy and liquidity requirements, although the risk to the bank is identical to that of a loan to the borrower.

55. The following descriptions of letters of credit is intended only to provide an understanding of the basic nature of these transactions and the risks involved. For definitive information see International Chamber of Commerce Publication 400 of 1983 and subsequent legal interpretations.

5. Profit and Loss

Interest differential income represents the main source of income for a bank and is derived from two factors, namely, the value that the bank provides by (a) intermediation—enabling persons with surplus funds to put these funds to productive use by persons with insufficient funds—and (b) maturity transformation—taking in inexpensive short-term funds and converting them into more expensive longer-term funds. These two processes, combined with the management of (a) liquidity—ensuring that a depositor has access to his funds when needed—(b) risk—ensuring that funds lent are recovered—and (c) cost control—minimizing the interest differential margin required by the bank to survive—form the core of banking business. How well the bank does this determines its success or failure, and deviation from these fundamentals generally means trouble.

Box 5.1 shows the sample statement of profit and loss, also known as a statement of income and expense. An alternative format frequently encountered by the analyst is the more traditional approach of listing all income first to reach a gross income, then all expenses to reach a gross expenses, with the difference shown as the net income or loss. While the end figure in both approaches will be the same, the flow approach recommended here allows the analyst to see the origin of all income. Ideally, the structure of the statement of profit and loss will parallel the structure of the balance sheet, so the revenue or expense attributable to the major balance sheet items can be analyzed, as is the case in the sample.

Operating Income

Operating income includes all income and expense items that represent the normal, core business of a bank. Specifically excluded are items that represent extraordinary circumstances, prior-period adjustments, or that are unrelated to the normal busi-

ness of a bank. These are shown under non-operating or extraordinary items, as explained below. Many regulatory supervisory systems focus on the balance sheet and key balance sheet ratios, such as capital adequacy and liquidity, without paying much attention to the profitability of the bank. This is a mistake. The financial health of a bank is a direct result of its earnings performance. Inadequate earnings performance will tempt even the best managements to reach for profitability by engaging in riskier business to shore up profitability, thus exposing the bank to increased risk of failure. Failing earnings performance is thus a leading indicator of problems that may become cumulatively significant enough to show up in the balance sheet and the related ratios only years later. Equally, a sudden recovery of earnings, or abnormally high earnings in a competitive market where opportunities for exceptional earnings are few, can be a cause for concern in that they may indicate a heightened willingness to accept risky or creative practices.

Interest Income

INTEREST INCOME includes all interest received by the bank from all sources. Unfortunately for the analyst, interest income as reported can deviate from reality in several ways:

- *Accrual of interest*—Interest income should be calculated on an accrual basis, meaning that the bank should calculate the interest due from its clients over the exact period covered by the income and expense statement, whether or not the client has actually paid this interest.

- *Non-accrual of interest*—The exception is that interest on individual loans should not be accrued if *any portion* of the credit exposure to that client is overdue by more than a certain, specific period. Interest accrual is commonly discontinued after 90 days, with any interest accrued during the 90

Box 5.1 Profit and Loss*Interest income*

Interest on loans
 Liquid assets
 Loans to credit institutions
 Loans to customers
 Marketable debt securities
 Gains from market rate increases
 Loan-related fee income
 Income on forward contracts
 Other interest income

Interest expense

Amounts owed to credit institutions
 Amounts owed to customers
 Demand deposit accounts
 Time deposits up to one year
 Time deposits over one year
 Savings accounts up to one year
 Savings accounts over one year
 CDs and deposit substitutes
 Bonds and other debt securities
 Other funding liabilities

*Net interest differential income**Other operating income*

Income from investments
 Shares and variable yield securities
 Participating interests
 Affiliated undertakings
 Service charges and fees
 Income earned
 Less expense incurred
 Profit/(loss) from financial operations
 Dealing in securities
 Placement of securities
 Trading gain/(loss) on foreign exchange
 Other
 Net lease income
 Lease payments received
 Less related depreciation

Other operating income

Rents received
 Other

*Gross operating income/(loss)**Operating expenses*

Salaries and employee benefits
 Salaries
 Other benefits
 Social security costs
 Rents paid
 Other occupancy
 Taxes and licenses
 Depreciation
 Amortization of consolidation goodwill
 Other administrative expenses
 Other operating expenses

Net operating income/(loss)

Loan loss provision expense
 Bad debt and provision expense
 Less recoveries

*Write-down of investments**Income/(loss) before extraordinary items**Extraordinary gains/(losses)*

Extraordinary gains
 Extraordinary losses

*Net income/(loss) before tax**Income tax**Net income/(loss)*

Transfer to general reserves
 Minority interest
 Dividends declared
 To/(from) undivided profit

days reversed out of income. However, the practices in many developing countries are remarkably lax.¹ It is not uncommon for the period to be extended to six months, one year, or even two years; and in many countries, non-accrual may apply only to that portion of a loan that has matured and remained unpaid for more than the accrual period, while accrual on later maturities of the same loan continues. It stands to reason that if a borrower is unable to meet any single maturity when due, the probability is high that he will have trouble meeting other maturities when due; thus,

interest accrual should be stopped on all outstanding.

• *Impact of accrual policy*—Accrual of interest on non-performing loans can make a financially insolvent bank look sound. A remarkably common practice in many countries that have not introduced sound regulatory practices is for banks to continue calculating interest on loans that have little or no chance of being repaid, debiting the interest amount to the client's overdraft account, thus taking the interest into income and increasing the size of the loans outstanding. The net effect is

that new deposits are being used to pay accrued interest, taxes, and dividends instead of being lent to productive enterprises.² This has been a particularly severe problem in state-owned banks where the "healthy" loan growth may be almost entirely due to capitalized interest.

- *Overdraft financing* is a problem. It works in countries where the bank conducts rigorous annual reviews and has the enforceable right to arbitrarily demand repayment in full if it becomes concerned with the quality of the credit. Unfortunately, many developing countries that inherited the overdraft system as part of their colonial past did not necessarily inherit the rigorous credit analysis standards nor the automatic legal support that allows such a system to work. Frequently, banks simply charge interest when due to the overdraft account, thereby recording the income, increasing the overdraft, and enlarging the asset base of the bank, even when there is no hope of recovering the principal, much less the interest due.

- *Loan loss provisions*—Some banking systems do not like to disclose loan losses, so they are hidden as an offset to interest income. This distorts analysis of the underlying profitability of the bank by depressing stated income by a sometimes sharply fluctuating amount. Analysis of statements of profit and loss for banks that practice offsetting should include identifying actual loan loss provisioning amounts, either through the footnotes or discussion with cooperative managements, and adding these amounts back into interest income with an equal increase to expenses further down.

INTEREST ON LOANS may be subdivided by category, particularly in regulatory reporting data. Where available, these categories should correspond to the balance sheet liability categories, for example:

- *Liquid assets* include deposits with the central bank (although usually no interest is paid on these) and income from treasury instruments that form the bank's liquidity reserve.

- *Loans to credit institutions* should include deposits, money market placements, and loans with other financial intermediaries.

- *Loans to customers* includes all loans and advances to the bank's non-financial clients and forms the core interest income category, subject to the caveats above. In countries where the discount of trade bills is practiced, this would also include the related discount income, although variations include showing (a) gross discounts as interest income with an offsetting rediscount cost under interest expense or (b) showing the net difference

between the discount and rediscount as a net figure under either interest or fee income. Clearly, it helps to know the particular lending practice.

- *Marketable debt securities*—In countries with secondary markets in government or other securities, a bank may have a significant portfolio of minimal risk instruments on which it is earning interest. Including such income in loans and advances would result in a blended rate that might distort analysis of the bank's loan margins.

GAINS FROM MARKET RATE INCREASES occur in countries that have functioning markets in debt securities. A gain would occur if a security sold prior to maturity carried a higher nominal interest rate than the prevailing market rates at the time of the sale (market interest rates had declined since issuance). Since the interest payable at maturity is higher than would be obtained from a similar debt security issued at current rates, the buyer in a market economy would normally be willing to pay an increment over the face value of the security to take into account the above market yield. This results in a gain for the seller, which is equivalent in nature to interest received.

LOAN RELATED FEE INCOME that does not directly reimburse the bank for the cost of generating a loan substitute for interest should, in theory, be amortized over the life of the loan and treated as interest income. Examples include:

- *Commissions* that are *not* directly related to the operating expense of booking the loan.

- *Time-related fees*—for example, a commitment fee based on a percentage of the undrawn amount of a line of credit.

Fees that reimburse the bank for the reasonable cost of processing the loan or fees that recover expenses incurred to register security interests, for example, should be treated as fees and commissions, not interest income.

Without clear guidelines on the accounting of loan related fees, it would be possible for a bank that is in trouble to increase current earnings at the expense of future earnings by "buying-down" the nominal interest rate through a front-end fee offset by a lower nominal interest rate on the loan.³ This is also common practice in consumer finance, for example, where the purchaser may be more sensitive to the interest rate than to the cost of the merchandise he is purchasing, the cost of which may hide a buy-down of the interest rate.⁴ This mechanism also can be used to evade regulatory restrictions on interest rates.

INCOME FROM FORWARD CONTRACTS. In the most sophisticated financial markets, banks can hedge

their interest rate position (for example, to lock in a funding rate to cover a long term loan) through forward interest rate contracts. Any gain on such contracts is related to market interest rates and is somewhat akin to interest.

OTHER INTEREST INCOME can cover many categories that may be consolidated or shown separately. For example, some international banks have developed a remarkably consistent reputation for stretching financial integrity to the limit—interest paid on off-shore borrowings to a parent bank at significantly above-market rates is an easy way to depress local earnings and taxes and beat the foreign exchange restrictions on dividend transfers, unless the bank supervisory agency requires and verifies separate reporting of interest on loans from related entries.

If these categories are available, then dividing the income into the *average* related liability can be an indicator of seasonality or of year end window dressing, if the rates produced are significantly off-market. Additionally, development over a time series and comparison with peer banks can lead to further questions if material differences are detected.

Interest Expense

Proper accrual accounting should ensure that interest payments covering periods that bracket a year end are allocated *pro rata* between the two years. As with interest income, a breakdown by type of liability can be useful in analyzing a bank's funding costs. Sample categories are shown here in order of increasing cost, whereas other presentations may place savings deposits after time deposits as more stable.

AMOUNTS OWED TO CREDIT INSTITUTIONS separates the cost of funding from other financial institutions, typically including interest charges on funding from the central bank or on money market borrowings. Also included here would be interest on borrowings from foreign agencies.

AMOUNTS OWED TO CUSTOMERS includes all the normal interest expenses relating to the bank's deposit base. These expenses are typically not segregated, but where they are, they would be separated by instrument and by maturity (less than and more than one year).

- *Demand deposits* traditionally have been transaction accounts that did not earn interest. This has been changing, and the barrier between savings and demand accounts has been crumbling, particularly in developed financial markets and in

markets where there is strong competition for deposits.

- *Call deposits* with two or more business days' notice prior to withdrawal may be separated out or consolidated with demand deposits (as in the example in box 5.1).

- *Savings deposits*, in either passbook or statement form, are repayable essentially on demand in most countries, although some countries have had a longer-term prior-notice requirement.

- *Time deposits* are typically of 30, 60, 90, 180 days' or one or more years' maturity, depending on prevailing practices. In theory, their yield curve should be matched to inflationary and interest rate expectations and should include maturity premia.

- *Certificates of deposit* are essentially time deposits but are evidenced by a negotiable certificate.

BONDS AND OTHER DEBT SECURITIES include the interest expense on term funding from domestic sources that have a specific maturity and that are evidenced by a negotiable debt instrument that is tradable in the market.

OTHER FUNDING LIABILITIES represents a catch-all for anything that is "none of the above."

Net Interest Differential Income

Net interest income is interest income less interest expense. This is the interest differential income that forms the core of the bank's earnings. Banks that operate in an environment that allows market determination of rates will adjust their lending rates up or down over time to reflect changes in the bank's funding costs. Since this adjustment process is reactive, changes in lending rates will lag behind changes in funding costs. This lag results in depressed interest differential income in a rising interest rate environment and increased interest differential income in a declining interest rate environment. Administratively set rates or oligopolistic practices will distort this cycle.

Other Operating Income

Fees have become an increasing source of revenue for banks as competitive or regulatory pressure on lending rates has forced an unbundling of service pricing from interest differential income. In principle, loan-related fees should not be included in this section of income, although the analyst is probably safer to assume they are in most countries that are still developing their accounting practices.

The first three categories below are somewhat interchangeable but, if differentiated, include the following types of fee income:

INCOME FROM INVESTMENTS in many respects resembles interest in that it is income received that relates to the use of bank resources. Resources that are placed in equity investments have a less predictable return since the income stream depends on the performance of each company in which an investment is made, rather than on a contractual or market rate.

SERVICE CHARGES AND FEES.

- *Service charges* relate to the normal periodic charges for providing a standard service and are independent of transaction volume or risk. For example, the terms and conditions on a non-interest-bearing demand deposit account may provide for the normal operating expenses of that account to be absorbed by the bank, providing that a minimum balance is maintained on the account since the interest value of those funds to the bank is adequate to cover the operating expenses involved. If the account balance drops below this minimum balance, the account would be debited with a service charge to replace the lost interest income on the missing balances.

- *Transaction fees* relate to fees that are specifically transaction dependent and are based on the operating cost of executing the transaction, not on the risk involved. For example, issuing a statement at the client's request outside of the normal statement cycle incurs a cost, but no risk, to the bank. This sort of transaction would be subject to a transaction fee.

- *Commissions* are risk-related and include letter of credit fees, documentary collection fees, and funds transfer fees where these are proportional to the amount of the transaction.

PROFIT/(LOSS) FROM FINANCIAL OPERATIONS comes from the bank's participation in the financial markets, particularly where it is "making a market" in certain securities or instruments. The bank acts as an intermediary between buyer and seller of financial instruments and takes a small spread on each buy-sell transaction between clients.

- *Trading gains/(losses)* would typically include gains or losses from the purchase and resale of treasury bills, bonds, commercial paper, and other debt or equity instruments.

- *Foreign exchange gains/(losses)* similarly represent the rate differential between the buy and sell rates as the bank matches buyers and sellers of foreign exchange.

- *Foreign exchange commissions* may be included here or as part of non-operating income. If included as part of fee income, these commissions should be broken out as a separate line item where this income is material and a normal part of the bank's business, since it can fluctuate considerably based on events outside of the bank's control and can confuse evaluation of the bank's underlying earnings.

While a bank will normally maintain a small inventory of instruments, speculation through taking a significant position for its own account is normally avoided, and soundly managed banks maintain strict gapping limits to prevent losses.

NET LEASE INCOME. Financial lease transactions entail credit risks very similar to those for normal equipment finance. While under a lease, the bank retains legal title to the equipment, thus eliminating any question of ownership of the collateral. The leased equipment is still under the operating control of the client, and its collateral value depends on the bank's ability to find it (a particular problem with vehicles) and on effective maintenance, which may be the first expense cut by the client if he is experiencing financial difficulty. Lease income should be broken down into the relevant income and expense:

- *Lease payments received* reflects actual payments received under lease contracts.

- *Less related depreciation* reflects the cost of ownership of that equipment over the same time, based on depreciation over the useful life of the equipment.

In some countries, the tax laws permit the transfer of the depreciation to the bank through this form of lease. This can be particularly useful for a capital-equipment-intensive lessee that may not have sufficient profits to absorb the depreciation as a tax-deductible expense, while a bank generally has relatively few depreciable assets and may have greater absorptive capacity. This transfer of the depreciation can be useful to both parties and result in higher real earnings for the bank while lowering the cost of acquiring use of the equipment to the lessee.

OTHER OPERATING INCOME represents a catch-all for "none of the above."

Gross Operating Income/(Loss)

The gross earnings capacity of the bank is reflected by the sum of the net interest differential income plus other operating income.

Operating Expenses

Generating the interest differential and fee income requires staff, physical facilities, work tools, supplies, and other operating costs. Efficient management requires balancing short-term cost minimization with investment in the human and physical resources needed to maintain efficient operation over the long term. Operating expenses are among the more controllable aspects of banking and directly affect the efficiency of the bank. Apart from loan loss provisions, operating expenses have the greatest impact on the cost of intermediation. Analysis of bank efficiency often focuses on operating expenses as a percentage of total assets as a convenient way of standardizing an evaluation criterion. This can be deceptive, however. While loss of expense control clearly will damage the bank's ability to compete in a competitive market (or the efficiency of the economy in a non-competitive environment), minimizing operating expenses can be as damaging, if the minimization impairs staffing quality, training, credit management, repair and maintenance, and investment in cost-saving devices such as computers and office equipment.⁵ A key objective of sound bank management is to be the lowest-cost provider of competitive banking services over the long term.

SALARIES AND EMPLOYEE BENEFITS. Staffing represents the largest cost item in a healthy bank, since banking business is inherently people-intensive.

- *Salaries*—If salary scales are available, they should show a possible parabolic curve that ensures adequate incentive for advancement. The salary scales of those individuals who have a direct involvement in the policies of the bank should be sharply higher than those for non-policy-level staff and should be tied to the performance of their bank. This is essential to motivate top management to devote its full time to the success of the bank.⁶

- *Other benefits* may be incorporated into salaries or shown separately. In developed countries, these benefits may reach 50 percent of base salary through insurance, pension plans, low cost loans, profit sharing, and the like. In developing countries, subsidized housing is a major component, since this is often in short supply, and can include petrol/gas, gardeners, and allowances for water, electricity, and education. In nationalized banks, these fringe benefits may substantially exceed the base salary. If the base salary is tied to government pay scales that ignore competing private sector

pay scales, banks are able to circumvent the formal pay scales.

- *Social security costs* may be included in other employee benefits or broken out separately. There is no particular analytical value in separating these costs, and such separation often depends on a country's socialist background.

- *Directors' fees* are sometimes disclosed, generally in response to regulatory requirements. Where disclosed, they are not generally material, and in any case are misleading since direct remuneration is often augmented by fringe benefits such as board meetings in exotic places.⁷ This category can usually be ignored unless it is material compared with other expenses.

OCCUPANCY includes all expenses relating to the maintenance of work space for the staff (excluding depreciation, which is a non-cash expense and is generally reported separately). These categories are self explanatory:

- *Rents paid* and lease expenses on office space.
- *Utilities*, including telephone, water, electricity, and gas.
- *Taxes*, including property taxes.
- *Insurance*, particularly fire insurance.
- *Maintenance* costs on physical facilities and equipment.
- *Computer expenses*—These are beginning to be significant compared to other expenses, and expenses related to software licenses and maintenance agreements are beginning to merit a separate line, at least in more detailed regulatory reporting formats.

The sample reporting format segregates rent expenses from other occupancy expenses since, from an accounting standpoint, one relates to a long-term contractual obligation while the remaining categories cover current period expenses.

TAXES AND LICENSES. Some countries impose turnover taxes that relate to business volume rather than to net income (for example, gross-receipts taxes on gross interest or fee income) or require business licenses that relate to the nature of the bank's business regardless of volume. These can be significant and can materially change the government's share of bank earnings.⁸

- *Taxes*—Turnover taxes are relatively easy to verify and may be appropriate in countries where accounting practices and the bank supervision system are not up to the task of assuring fair reporting of taxable income by the banks. However, if these taxes also apply to transactions between banks within the financial system, then they can

materially reduce the efficiency market reallocation of resources within the financial system, with typical symptoms being an underdeveloped money market.⁹ This category should not include taxes on interest payments that are withheld from the interest payments made to clients or stamp duties on negotiable instruments charged to clients outside the financial system, since these are not an expense to the bank, which is merely acting as a collection agent for the government.

- *Licenses*—Operating licenses are not usually a major expense for a bank and are usually consolidated into taxes (above) or into other operating expenses (below). If these are material, however, they should be disclosed here.

DEPRECIATION is a non-cash expense, meaning that it has no direct impact on the cash position of the bank. It does have an indirect effect, since increased depreciation reduces taxable income, reducing income taxes and improving cash retention. While tax rules in most countries set rigid guidelines for depreciation of fixed assets for tax purposes, a bank in a weak accounting environment could be tempted to forgo depreciation during a bad year as a way of increasing published earnings (this should not affect tax payments). A break-out of depreciation from other expenses is thus helpful in allowing the analyst the opportunity to confirm, through a time series, that depreciation is consistent in relation to gross fixed assets. Depreciation in a bank has not been as significant as it has been in manufacturing, since banking has not been capital-intensive, although a major automation project in a developing country in which banking plant and equipment are carried at a low historical cost could cause depreciation to jump substantially.

- *Buildings* are generally depreciated over 25 years, although the actual useful life may be more, and the market value may in fact increase.

- *Furniture, fixtures, and equipment* are typically depreciated over five years.

Many countries set limits on the size of fixed assets in relation to equity in the belief that depositor funds should not be invested in fixed assets.¹⁰ This may have been appropriate when the fixed assets were special purpose buildings and expensive safes that had little or no market value and were unlikely to contribute much to cost control beyond discouraging would-be burglars. Computers, however, have a direct impact on the bank's service quality, the productivity of its staff, and management's understanding of and control over the affairs of the bank. Unfortunately for the

analyst, only an on-site review of the bank's automation projects by someone with some background in this area can determine whether funding for automation is being well spent, since bank annual reports tend to stress hopes rather than fears.

AMORTIZATION OF CONSOLIDATION GOODWILL will appear only in the consolidated financial statements of a bank that has acquired subsidiaries at a price greater than book value to reflect the business value of an established market position, staff expertise, or other intangibles, thus creating goodwill that may be amortized. Actual amortization practices vary, and while most countries require regular amortization of goodwill, some allow a write-off against reserves, and still others may require a matching of the amortization against evidence of loss of value.

OTHER ADMINISTRATIVE EXPENSES typically include expenses incurred for external professional services that are sometimes listed separately. For example:

- *Directors' fees*, if not included in staffing, in theory should include the value of "perks" or indirect compensation to directors.

- *Management fees* in a bank that is being provided with external management under a management contract. Typical cases include banks that have been rescued using an external management team, or a less than 51 percent owned affiliate of a major financial bank where the minority owner assures the management. Fees of external consultants may also be reported in this category.

- *Auditors' fees* for the external auditors.

- *Legal fees* covering client litigation.

- *Deposit insurance* is not usually shown as a separate line item, although some off-site surveillance formats now include this category. Where present, deposit insurance premia should reflect a percentage of deposit liabilities calculated according to the guidelines set by the deposit insurance authority. These guidelines generally call for a straight percentage of average deposit liabilities, although in theory a higher risk bank, for example, one that has an inadequate capital adequacy ratio, should pay a risk premium on its deposit insurance to reflect the higher risk inherent in an undercapitalized bank and to offset the competitive edge that a lower capital adequacy provides. In practice, the use of such a graduated scale could cause a loss of public confidence if the public were to learn that a bank's premium had increased.

While these expenses are often not material compared to the other operating expenses, they repre-

sent potentially subjective payments to outside parties. Regulatory agencies may therefore require separate disclosure as a way of identifying and discouraging inappropriate removal of resources from the bank.

OTHER OPERATING EXPENSES include all remaining non-interest expenses relating to the normal business of the bank that individually are not material. These can include outside services that are not listed separately, such as audit, legal, and consultant fees, stationery and supplies, operating licenses and permits, or any other miscellaneous charges. As a general rule, any material item should be disclosed separately. However, the definition of material may be unclear, and in some countries this category can be the largest expense category that warrants further questioning by the analyst and possible modification in disclosure criteria by the regulatory authorities.

Net Operating Income

Net operating income, gross operating income less operating expense, reflects the net earnings capacity of the bank from the normal conduct of business. Net operating income is probably the most important single figure in the statement of profit and loss.

Non-Operating Income and Expense

LOAN LOSS PROVISIONS. Loan loss provisions represent the single largest “discretionary” expense in the statement of profit and loss and can appear in one of four places:

- *Hidden* as an offset to interest income (explained above), which is the least helpful presentation.
- *As interest expense*, as a normal cost of interest differential business. This is the correct location if a rigorous loan classification process is in place so that the provisions taken each period accurately reflect the change in value of the risk asset portfolio during that period.
- *In operating expenses*, as somewhat equivalent to depreciation, since it reflects the loss of value of assets over time.
- *As a non-operating expense*, which would be the best presentation if provisions are not contemporaneous, namely, if they reflect changes in the value of risk assets that occurred during prior periods but were not recognized at the time they occurred due to the lack of a rigorous loan classification system.

Provisions for loan losses are a key cost to the bank and are even more judgmental in the absence of rigorous asset classification and provisioning policies monitored by the supervisory authority. Mechanically, a loan loss provision represents a before-tax transfer of income to a loan loss reserve in the balance sheet, the cumulative total of this reserve reflecting the difference between the book value of the bank’s discounts, loans, and advances and the estimated recoverable value—the amount by which the value of the loan portfolio is impaired. The loan loss provision made in any year thus should accurately reflect the change in this impairment during that period. An accurate determination of this change in impairment requires a rigorous analysis of the portfolio and classification of the individual loans into risk categories based on their recoverability. In the absence of such rigorous procedures, loan loss provisions become highly subjective and may be influenced more by the bank’s underlying profitability than by the condition of the portfolio, leading to high provisioning in good times and low or no provisioning when the bank is experiencing difficulty (which is generally the reverse of what should be done). Actual presentation may take the form of a single line item or, as in the model, broken down into:

- *Bad debt and provision expense* including all new provisions taken less reversals of provisions previously taken where the underlying loan has improved, plus loan write-offs for which no provisions had been established.
- *Less recoveries* to show funds recovered on loans previously written off. Determining the recoverable value of a loan is always somewhat subjective, so it is normal for a conservatively managed bank to write off loans that appear to have no significant value, only to be surprised by a recovery.

WRITE-DOWN OF INVESTMENTS. If the book value of investments is properly carried at the lower of cost or market, any decline in the market value of either debt or equity investments should result in a charge to income. The offset, a rise in the market value of an investment, should be recognized as a gain at the time it is sold. This line item can thus be negative, meaning that there was a net realized gain on investments. Practices vary between countries, and some allow recognition of increases in market value of investments through a revaluation reserve.

EXTRAORDINARY GAINS/(LOSSES). Unusual income or expenses can have a material effect on the income of a bank but be unrelated to the bank’s normal performance. For example, recognition of

the increased market value of a bank's premises is permitted in some countries, particularly those that have experienced rapid depreciation of the value of their currency (inflation). Such a revaluation has no connection with the normal business of the bank and is unrelated to the current period since it reflects recognition of an increase that has occurred over several years. Similarly, recognition of a significant loss that actually occurred some years earlier, but had not previously been recognized in the financial statements, is an extraordinary expense unconnected to current performance. While such adjustments have an immediate impact on the equity reserves of the bank, and thus on its capital adequacy, they are unrelated to current earnings and should not be allowed to distort analysis of the bank's earnings capacity.

- *Gains* include cash income, such as gains on the sale of property, or non-cash income, such as recognition of the increased market value of the bank's land, buildings, or equipment (see chapter 4).

- *Losses* include recognition of significant losses that originated in prior accounting periods, losses on the sale of property, or adjustments in prior year taxes.

Net Income/(Loss) Before Tax

The bank's net earnings from the normal conduct of its business over the period—net operating income plus non-operating income minus non-operating expense—is generally highlighted before the deduction of income taxes or extraordinary items.

Income Taxes

The method of calculating income taxes varies by country and can be a good indicator of hidden problems. The tax authorities generally do not allow as much flexibility in the recognition of income and expense according to generally accepted accounting practices, and since the tax percentage rate is usually stable, the amount of taxes paid is a good indicator of the taxable income as recognized by the fiscal authorities. For example, if reported net income is consistent with prior years but income taxes have dropped sharply, the bank may be drawing on "hidden reserves" to maintain stability in its published profitability despite a decline in actual earnings. In many countries, the tax authorities do not yet recognize the impairment of

the value of assets at the time such impairment occurs and thus reject loan loss provisions as a taxable expense, allowing recognition only once the full legal collection process has been completed, which may be decades after the asset actually ceased to have any value to the bank.¹¹ This may not always indicate ignorance on the part of the tax authorities. In some countries, accounting practices are still weak, and rigorous standards for establishing loan loss provisions may be in the formative stage, so provisioning may be subject to abuse, particularly in privately held banks where minimizing taxes may be more important than maximizing published earnings. Income taxes shown here should not include the tax effect of extraordinary items (below) but should reflect the normal tax burden from current operations. However, in the absence of any clarification in the footnotes, the analyst may be on safer ground to assume that all income taxes are reported in this account category.

Net Income/(Loss) After Tax

Net income/loss after tax is the income from the normal current period operations of the bank that is left to the bank after taxes have been deducted but before extraordinary items, dividends, and transfers to reserves.

Extraordinary Income/(Expense) Net of Taxes

In countries that have a full tax accrual system that provides for carry-forward and carry-back of tax liabilities, extraordinary gains or losses may be shown as an after-tax income or expense, net of the tax impact. Each such extraordinary item should be reflected below net income after tax and should be reported net of any tax effect.

Net Income/(Loss)

The income earned by a bank represents the lubricant that allows the machinery to keep running. Any bank that wishes to survive must create value for the community in which it is located and be perceived as a positive contributor to its clients and to the economy; it must also make enough profit to maintain the real value of its existing equity base in the face of the depreciating value of the currency resulting from inflation, and to add incremental equity so that it has the capacity to grow and expand its contribution to the economy.

Unless it makes and retains adequate real (not misstated) profits, it will lose its ability to function. Bank earnings in a competitive environment are thus an essential element of a sound financial system, not a social ill to be cured.

Distribution of Income

Dividends

Shareholders must be compensated through dividends for the time value of the funds that they have provided and for the potential risk of loss. Dividends are only one component of stockholder compensation, the other being capital gains through appreciation of the market value of the bank's stock against the original purchase price. In principle, dividend payments that prevent the institution's capital from growing by at least the inflation rate and a reasonable market growth rate should be cause for concern. Unfortunately, the capital markets in many developing countries focus on the short-term dividend payments and are not sufficiently developed to recognize capital gains, leading banks in such markets to pay excess dividends as a way of *increasing* the market value of the bank's stock based on the improved price/earnings ratio that such a high dividend produces. In such countries, dividends are targeted at some increment over the long-term savings rate, totally ignoring the capital gains component and the impact on future earnings. The standard for dividend payments as a percentage of net income thus varies from country to country, again requiring the analyst to rely on comparisons with peer banks rather than on the absolute numbers for any particular bank.¹²

Allocations

The remaining revenue after taxes and dividends reflects the capital formation by the bank. Some countries set guidelines on how this income should be allocated, often setting legal or statutory reserves to which after tax income is to be allocated. These reserves should all be equity rather than contingency reserves, so the actual pot in which they are placed is unimportant. Such equity reserves include specific reserves required by the prevailing regulatory environment and general reserves (under various names) that contain whatever is left over. In some countries, the practice is to place a round number amount into reserves,

leaving the odd amount left over in undistributed retained earnings.

Disappearances

In theory, net income less dividends should equal the change in equity reserves (thus excluding the impact of any capital or share premia changes). In practice, however, after-tax disappearances of retained earnings are not unknown, even if uncommon. The analysis should try to reconcile retained earnings with the change in equity reserves.¹³

Summary

Chapters 4 and 5 should help the reader to better understand what the figures mean, which should improve understanding of what the bank that is being analyzed is doing. The reader is cautioned that this guide is an overview and that the details may vary between countries, even if the concepts remain generally similar. The next chapter will examine the key risk areas that most concern bank managements, regulatory supervisors, and bank analysts, since these dig deeper into the qualitative aspects of the balance sheet.

Notes

1. Another term might be "more flexible," since in many countries the cultural bias appears to be towards avoiding confrontation with the client (particularly where the client is socially important) through understanding and accommodation. Unfortunately, experience has shown that clients are often most willing to take advantage of any flexibility shown by the bank.

2. In several countries in which the author has conducted detailed management, portfolio, and financial analyses of state owned banks, over 60 percent of the loan portfolio could be attributed to accumulated unpaid interest. In one extreme case, essentially the entire deposit base of the country had been used to pay deposit interest and to pay taxes on entirely fictitious income.

3. The converse is also true—some regulators do not permit banks to charge front-end fees, even where these involve providing legitimate loan processing or packaging services that entail a current cost (Kenya is an example). The net effect is to force the banks to recover current period expenses through increased lending rates, thus depressing current cash flow, income, and the related tax payments in favor of longer-term income.

4. Some countries have introduced "truth in lending" disclosure requirements that force the bank to pro-

vide its prospective loan clients with the actual annual percentage rate being charged, taking any fees into account.

5. For example, the most "efficient" bank in a particular country, as determined by lowest operating expense to total assets, was the state owned, dominant commercial bank. The least efficient bank on this basis was a smaller private bank. However, the state owned bank exhibited below-market salaries that prevented it from hiring top candidates. In addition, limited training, inadequate office equipment and computer support of services and the management decisionmaking process (including control of credit risk), and uncomfortable working conditions depressed operating expenses in the short term. The smaller bank, on the other hand, was just completing an expensive automation program that gave it distributed electronic accounting throughout the country, a marketing effort based on top quality services, and up to date credit analysis procedures that would hold down loan losses. Not surprisingly, the smaller bank was gaining market share at the expense of the larger, and over the longer term was more likely to remain competitive and financially sound.

6. It would be reasonable to expect an inverse relationship between efforts by management to supplement income at the expense of the bank, explicit or otherwise, and compensation levels for policy level management. If top management is using bank vehicles to transport milk from a private farm to market (to cite a relatively innocuous but real example), this will influence the professionalism throughout the bank and be reflected in the bank's performance.

7. And in some countries, fringe benefits include preferential access to credit, although changes in regulatory reporting are increasingly seeking to limit or at least disclose such connected lending. The related entity analysis in annex 2 deals with this issue.

8. In Thailand, for example, a 3 percent national and 0.3 percent local gross-receipts tax adds 0.27 percent of total assets to the intermediation cost, almost equaling the 30 percent income tax.

9. In the Philippines, a 5 percent turnover tax was applied to all interest collected other than on overnight interbank money market placements. The unintended effect was to discourage development of a term interbank market, since this would have been subject to the turnover tax.

10. Such restrictions may seem prudent but are not necessarily enforceable—a bank circumvented this restriction by setting up and funding a leasing subsidiary, which then bought computer equipment worth more than the total equity of the parent bank, and leased it to the bank. In another country, an initiative to set the limit at 15 percent of capital would have severely penalized new banks that would reflect the full value of new tangible assets, while not having the same impact on older banks in which the book value of tangible assets had been eroded by high inflation.

11. One particular bank had been struggling for years to get tax approval to write off a small loan to three individuals. None of the individuals had been traceable for years—the bank's investigation showed that two had died and the third was thought to be in South America, so the loan was clearly not recoverable. However, since the bank's records failed to show the first names of these individuals, the tax authorities had taken the position that since the bank could not positively prove that the debtors could not somehow be coaxed into repaying, it could not charge-off the loan. Clearly, the supervisory authorities should have the power to provide clear guidelines which would be respected by the tax authorities as well as to rule on such nuisance cases that do not fit the guidelines.

12. In one particular country, all the major financial institutions paid a "bonus" in 1986 that substantially exceeded normal dividend payments. These bonuses were shown as a direct charge to retained earnings but were not otherwise explained in the financial statements of any of the institutions and were not shown in the sources and uses of funds. Such entries should cause the analysis to seek clarification from management and, failing such, to assume that these are equivalent to the payment of extraordinary dividends, although not necessarily to the shareholders.

13. For example, all the banks in a particular country showed a significant gap between reported net income after tax and the increase in capital and reserves after the distribution of dividends in one particular year. Questioning revealed that each bank had been asked to make a "capital contribution" to the country's major conglomerate (which happens to be owned by the country's president) as part of a bail out program. This had resulted in an after-tax charge that only showed in the financial statements through the unexplained difference in the reconciliation of capital.

6. Risk Profile Analysis

Bank financial statements generally include a substantial amount of additional data, much of which represents more of a sales pitch to clients than useful data for the analyst. However, a statement's nature may indicate the government's or management's interests and sometimes can provide valuable insight into the bank and the financial system in which it operates. Risk management is at the heart of banking, and effective financial analysis of a banking institution requires an understanding of management's skill and success at managing risk. Independent analysts, bank supervisors, and internal management all have the same interest in identifying unusual or excessive risk concentrations that indicate or could lead to financial difficulties. This chapter examines supplemental reports that focus on the quality of a banking institution's assets. Examples of regulatory reports designed to capture this data are shown in annex 2.

Maturity-Gapping Analysis

As mentioned in chapter 4, a major source of bank income is the transformation of shorter-term liabilities into longer-term assets. If the bank exceeds prudent limits on maturity gapping, it can experience a liquidity problem that in its mildest form would cause it to seek money market borrowings, or in more severe form could destabilize the bank and possibly require central bank or supervisory agency intervention. Assuring that bank management is effectively managing asset and liability maturity profiles has become an increasingly important supervisory task in addition to the early identification of those banks that are heading for trouble. The sample maturity-gapping report shown in annex 2 represents a simple form of maturity profile analysis and requires the reporting bank to allocate the major asset and liability categories over their *remaining* life (time to maturity). This is difficult from a manual accounting

system, and this report would be difficult to complete without either a computer or substantial clerical time. This example was developed for a country in which full accounting systems are only now developing and thus gives an incomplete picture in that it examines only loans to and deposits from clients and has relatively few break-points. It has limited value in determining short-term liquidity.

A soundly managed bank will typically have an asset and liability management process as part of its financial management that will not only include all other assets and liabilities but, more important, will project anticipated changes in deposit levels and large drawdowns and repayments of loans in an effort to project money market funding needs or placement opportunities. Even this relatively simple example yields a gap curve that gives an indication of the extent of maturity transformation taking place within the bank and allows comparisons over time and with peer institutions. A change in the profile of a bank over time indicates intentional changes in management targets or possibly lack of management, particularly if the trend lines are away from the market averages.

Portfolio Analysis

A bank's capital and profitability are critically dependent on the quality of its loan portfolio, and financial analysis is literally meaningless without a good understanding of the value of the bank's assets. The sample portfolio analysis is shown in annex 2. This report contains three sections, starting with the least sophisticated aging of actual past dues, then in section B moving to a more conservative approach including all related outstandings, and finally in section C progressing to a full loan classification system. In practice, an analyst outside of the country's banking supervision area is unlikely to obtain such detailed information from a commercial bank, since this information is highly confidential and disclosure could

result in impairment of public confidence in the bank. This information is more readily available from agricultural and industrial development banks, since they are generally government-owned and are not dependent on domestic deposits, so public confidence is not an issue.

Past-Due Aging Analysis

A not infrequent but less analytical quantification of loan portfolio quality is based on the extent to which principal or interest is past due. This follows more closely the practice in companies that are managing accounts receivable, but in many countries accounting practices tend to blur the distinction between financial and non-financial institutions. For a bank, the initial few days are critical, and the probability of receipt of payment is generally inversely proportional to the amount of time the payment is past due. A change in a bank's past-due aging profile can signal a change in the quality of the underlying loan portfolio. Care should be taken in using monthly data of this type, due to seasonality, particularly in banks with a significant agricultural lending. Unfortunately, while this approach is useful and would appear to represent a simple and consistent approach, it has two major drawbacks which should cause the analyst to view such data with suspicion:

- Past-due aging is a lagging indicator, since it only identifies a loan as troubled once payment is past due, as opposed to when future payment becomes questionable, as is the case with a proper loan classification system (see below).
- The practice in many developing countries is to treat each maturity of a term loan and each individual loan to a single borrower as a separate, unconnected issue.¹ So if a borrower has multiple maturities, only those that have become past due will be counted in this analysis, whereas it is reasonable to assume that if one payment is missed, others are unlikely to be made on a routine basis. A past-due analysis thus generally understates the extent of problems in the credit portfolio. However, in at least one country the past-due figures are rendered meaningless by adding previous overdue loans (which should have been written off years ago) into current loans due to establish the calculation base. This resulted in a build up of an overhang of past-due loans that increasingly distorted analysis of more recent recovery performance. In theory, to accurately track recoveries over time, the amounts due each period should be

fixed, and recoveries of all amounts received over time should be tracked against the original period. This will produce a recovery curve for each accounting period, with the net recoveries after a specific number of months have elapsed from the due date forming the comparison base between periods.

Past-due loans may be renegotiated through extension of repayment terms or even through new loans to fund interest and principal payments. This can remove a bad credit from the past-due list, even though the chances of recovery may not have improved.

A past-due aging analysis thus represents an imperfect measure of the extent of the symptoms of problems in the loan portfolio, while a loan classification system (as described above) identifies changes in asset quality as they occur and, if properly used, can stimulate corrective actions to limit the damage.

Portfolio-Classification Analysis

This more sophisticated approach provides a view of the risk asset portfolio sorted by degree of risk and may include an analysis of the adequacy of loan loss reserves. This information is not normally published but should be available to the bank's management from the internal MIS and also should be provided to bank supervisors in the bank's periodic off-site surveillance reports. If management does not have this kind of information available to it (whether or not management is willing to provide it to the analyst), then it is reasonable to assume that the bank does not have an adequate understanding of or control over its lending risks. Similarly, if the bank supervisors are not receiving such data, then they are unlikely to detect problems within any bank they supervise until the bank is near collapse. As mentioned in chapter 4, the value of the loan portfolio, and consequently of the bank's equity, will only be stated fairly if the loan loss provisions correctly adjust the face value of loans to the recoverable value. Setting the size of this adjustment fairly requires a consistent approach to analyzing loans and determining the probable extent of any impairment in value. One set of classification guidelines has been developed by the Federal Reserve Bank as part of its policies and procedures manual for bank examiners (see annex 5).

Individual banks have their own classification systems—the most detailed seen (possibly exces-

sively so) was a British bank's nine level classification system. Classification of loans by degree of risk is thus a general industry practice among soundly managed banks. Since control of credit risk is generally recognized as one of *the* key elements of sound bank management, major international banks have learned to monitor tightly the quality of their credit portfolios. A banking environment that does not require proper loan classification will tend to place the domestic institutions at a competitive disadvantage vis-à-vis the local offices of major foreign banks, since the latter will have rigorous internal loan-classification requirements regardless of the local banking environment.

However, some bank supervisory authorities have failed to introduce effective loan classification systems. A plausible explanation is that the major government-owned banks have large quantities of loans to ailing or technically bankrupt parastatal enterprises that would have to be adversely classified if the loan-classification process were to be followed objectively.

An extension of the approach followed by the Federal Reserve is recommended. The IMF generally recommends a three-tier approach corresponding to the substandard, doubtful, and loss categories. The U.S. Federal Reserve uses a four-tier approach that adds an *other assets specially mentioned* (or *watch*) category. The author prefers a five-level approach that starts with a *pass* category on the basis that one of the major causes of unpleasant surprises in credit portfolios has been credits that have been overlooked and have deteriorated unknown to the bank's management. This *pass* category is not yet included in the Federal Reserve's classification categories, which have not been updated since 1985, although it has been added to a 1988 revision used by another agency. Requiring that *all* credits be allocated a specific rating annually helps reduce the likelihood of a troubled credit escaping notice. The following provides brief descriptions of each classification category (detailed descriptions are shown in annex 5).

PASS ASSETS. All loans, advances, and discounts approved within the normal credit policy and procedure guidelines of the bank (assuming these are satisfactory) are properly protected by the cash flow or pledged assets of the borrower, are properly documented, and are performing. Performing means that all principle and interest payments are being made as agreed and that all financial and other data are being routinely provided in form and substance satisfactory to the bank.

SPECIALLY MENTIONED ASSETS (SM) or WATCH. Assets in this category are performing according to the original agreement between the bank and its client, comply with the bank's credit policy and procedures, are properly documented, and appear sound. However, some changes appear to be occurring in the market or in the condition of the borrower that indicate that some difficulties could occur if the changes are not reversed. Assets in this category should be more closely monitored than *pass* assets and the bank should make doubly sure that all agreements and documentation are rechecked and that it understands the client's approaches to dealing with the potential difficulties.

SUBSTANDARD. While the credit is still performing as agreed, some discrepancy exists between the type or structure of the loan and the bank's normal credit policy, such as inappropriate, improperly executed, mutilated, or missing documentation or some change in the borrower's condition that appears to have increased the risk above the level normally accepted by the bank.

DOUBTFUL. A significant deviation in the borrower's performance has occurred from that required to service the loan properly. Any non-payment of interest or principle when due would qualify as such a deviation, as would any impairment in the basic cash-generation capacity of the borrower or of the value to the bank of any collateral. However, while some loss is probable, the exact extent of the loss has not yet been determined.

LOSS. The chance of recovering any significant portion of the loan is so small that the asset is no longer worth maintaining on the balance sheet and should be recognized as a loss.

SPLIT CLASSIFICATION. If a non-performing loan is partially secured and that security is realizable, the portion of the loan that is properly secured could be classified as substandard while the remaining unsecured portion would be classified as loss. Real estate and any other collateral should be valued at the lower of cost or net realizable value, thus the amount that the bank would expect to receive from the seizure and sale of the collateral, after deduction of legal and administrative expenses and taxes. The amount of a non-performing, asset-based loan that exceeds the net recoverable value would be classified as loss and a specific allowance established or it may be charged off, while that portion adequately covered by the realizable value of collateral could be treated as a lesser risk.

Loan Loss Reserves

Recognition of the impairment of value of the loan portfolio through provisioning of a loan loss reserves should correspond to the condition of the portfolio. The practice recommended here is for:

GENERAL RESERVES to be established corresponding to the percentage of currently normal and watch loans that historical analysis shows eventually become troubled. Clearly, this percentage is dependent on the long-term effectiveness of the bank's risk management process. The Basle Committee recommendations allow for such general reserves to be included in equity for the determination of capital adequacy.

SPECIFIC RESERVES should be established on the substandard, doubtful, and loss categories. Typically, a percentage (based on historical experience) of substandard loans would be used, plus full reserves on all loans classified as loss, with case by case analysis and rough estimates determining the amount to be allocated against doubtful loans.

Risk-Concentration Analysis

Excessive exposure to a few clients, either through loans or deposits, could cause instability in the bank. This exposure can be either in assets or liabilities, as follows:

Sources of Funds

Reliance on a few large depositors may appear attractive to a bank's management, since it simplifies the deposit generation effort and minimizes accounting requirements. However, withdrawal of a large block of deposits from a bank can precipitate a liquidity crisis if the bank cannot immediately replace those deposits. In some developing countries, parastatal enterprises have concentrated their deposits in small banks or non-bank financial institutions that were willing to pay above market interest rates. This has allowed weak institutions to expand their lending imprudently, with the result that the risk of failure of the bank is increased, and the parastatal depositor finds itself unable to recover its deposits without causing the collapse of the bank.

Uses of Funds

Similarly, the inability of a few very large borrowers to repay their loans when due can result in a

very rapid depletion of a bank's capital. Prudent banking normally sets limits on the amount of loans to any one borrower or group of related borrowers of between 10 percent and 25 percent of unimpaired capital. Loans in this context include all loans, advances, and overdrafts, plus undrawn commitments and contingent liabilities. Such policies ensure that the bank properly applies an actuarial dispersion of risk to ensure that defaults by one or a few major clients do not bring down the bank. Sound banks generally also have similar risk-diversification policies on exposure to particular economic sectors to ensure that difficulties in one sector of the economy do not cause excessive losses through the simultaneous failure of many smaller clients. In practice, some regulatory authorities argue that smaller, locally owned banks cannot compete with the established banks if such restrictions are applied, and in many narrow economies, concentration of risk by economic sector is unavoidable, given the lack of diversification in the economy.² Specialized banks, such as agricultural or industrial development banks, are particularly vulnerable to risk concentrations in both assets and liabilities.

Connected-Lending Analysis

A major source of bank failures has been unrecoverable loans that were made to related companies or individuals. Loans to affiliated companies, shareholders, or directors and policy level managers are not always made on a strictly commercial basis and represent a potential source of impairment of the bank's capital. The reports in annex 2 seek to measure the extent of such non-commercial lending.

Affiliated Companies

In many countries, banks form part of a broader economic group that includes non-financial companies. In such cases, the bank's role may in effect be to raise deposits from the public for use in the related companies.³ The danger of this situation is that a bank that would normally take action to protect itself against loss resulting from a client in difficulty by reducing its exposure and improving its security position may react to difficulties in a related company by increasing its financial support. In an extreme case, this can result in a domino effect where difficulties within related commercial enterprises are inappropriately passed through to

the bank, increasing the risk to depositors and to any deposit insurance system. A conservative but often justified analytical approach is to assume that loans to an affiliate are not made on a commercial basis and that the amount outstanding effectively represents a transfer of capital from the bank to the affiliate. A conservative analyst will reduce his evaluation of the bank's capital for capital adequacy purposes, although an ownership threshold of maybe 10 percent may be appropriate, up to which no capital adjustment is made but above which ownership control is assumed, and the entire amount outstanding, plus the amount of the equity investment, should be deducted from the bank's capital.

Shareholders

Significant shareholders have direct influence over management through the board of directors, and it is not reasonable to expect that loans to significant shareholders will be made on a fully commercial basis unless very careful regulatory monitoring is present. Even where such loans may be commercially justifiable, the terms may well be at other than normal market rates. Any significant lending to shareholders should be a cause for concern and reason for additional inquiry with management.⁴

Managers

Likewise, the managers who set the bank's policies are unlikely to get completely objective consideration from lending officers who depend on these managers' goodwill. Each bank in which the writer has worked had a formal policy of not lending *any* amount to any officer above a certain level in management. In many government-owned banks, the exact opposite is the rule, since low-interest loans represent a convenient way around unrealistic government imposed pay scales. However, the efficient reallocation of national resources requires competence, motivation, and integrity, and it would seem that governments ought to be interested in encouraging the best candidates to enter their banks and in motivating them through competitive pay scales based on performance.

Foreign Exchange Exposure Analysis

Foreign exchange transactions produce three basic risks:

Clean Risk at Liquidation

At the time that a commercial foreign exchange transaction is settled, the two parties to the transaction must pay each other, with each assuming that the other will complete its side of the transaction. In an interbank trade, Bank A pays one currency to Bank B, while Bank B pays the counter-value in a different currency to Bank A. If Bank A initiates payment to B but Bank B fails to complete its side of the transaction, Bank A has a problem.⁵ Trade related transactions are less of a problem, since the amounts are generally much smaller and the client's account can be debited in advance of issuance of payment instructions. This part of the foreign exchange risk is similar to normal commercial credit risk and should be subject to the same credit analysis and approval procedures as would a loan or advance.

Currency Risk

Foreign exchange rates can move quite rapidly and not necessarily predictably. Any bank that is long in a given currency runs the risk of loss if that currency depreciates, and any bank that is short will find covering its short position expensive if that currency appreciates. A matched book does not provide protection unless the maturities are also matched. A bank may show a balanced ledger position, but if its assets in a particular currency have a materially longer maturity than its liabilities, then it will suffer an exchange loss if that currency depreciates against the bank's home currency and the negative movement in the exchange rates exceeds any positive differential in exchange rates. Even a book that is matched by amount and maturity may not protect against loss if a major client proves unable to meet forward contract obligations and the bank has to unwind these obligations through offsetting spot transactions at unfavorable rates.

Sovereign Risk

In addition to the risk of getting paid currency that may have a lower than expected market value, in a number of countries the issue has become somewhat more basic—whether the bank can get paid at all. This problem generally affects term lending (which increased substantially after 1973 as a result of the need to invest substantial surpluses generated by the oil producing states) and export

finance of trade, since the currencies that are subject to serious sovereign risk considerations are not generally traded to any significant extent in the foreign exchange markets.

The example reports in annex 2 thus provide useful information on the risk characteristics of the counterparty and the net exposure by currency and information on any mismatches by maturity.

Banks in Central and Eastern Europe or in developing countries may not have the significant cross-border term lending that is characteristic of most of the major banks in most developed countries but may have relatively significant trade finance transactions where the risk is either guaranteed directly by the bank, has been passed through to a borrowing client who may not be financially strong enough to take a significant loss, or may be guaranteed by a government agency that may not have the resources to honor the guarantee.

Sectoral-Concentration Analysis

Most countries publish national statistics that include consolidated sectoral distribution of loans, and sometimes of deposits, generally following a format recommended by the IMF and the UN. The reporting banks usually send this data to the central bank's statistical department, often in parallel to the regulatory reporting data that goes to the bank supervision agency. Where available on a bank-by-bank basis, this data can show business foci compared to peer banks and over time may indicate unusual concentrations of risk. This generally has somewhat limited value in smaller countries since the portfolios of those banks will reflect the dominant types of economic activity within the country and since the banks often have little control over major risk concentrations.

Miscellaneous Reports

In addition to the risk-analysis data shown above, bank regulatory and stock exchange regulations may require additional information that may add insight into the bank's activities. Since in some countries these supplemental reports may be very extensive (one country was found to require 169 separate reports each month), only a few of the most common are listed below.

Interest Rate Analysis

Some bank supervisory agencies require an analysis of the interest rates paid by banks and charged

to their clients, typically through a matrix that shows the amount outstanding at each rate level. This can indicate the extent of risk and maturity premia, but more likely will demonstrate distortions created by government mandated credit at off-market rates.

Structural Reports

Annex 3 shows an annual report that includes a number of categories of information, including such mundane data as addresses of the head offices and branches, the names of key managers, and some basic financial data on branches that are useful in understanding the extent of the banking system in various parts of the country.⁶

Management/Stockholder Reports

Regulatory reporting requirements or local stock exchange rules may require reporting the names of individuals deemed to have a material control over the policies of the bank, and the bank's annual report may provide profiles of senior management. This information is useful to those analysts who have a deep understanding of the local market and of the key individuals likely to be involved in cross-ownerships and connected-lending activities, but is generally of little use without such insight.

Reconciliation of Capital Adequacy

The Annual Report shown in annex 3 also includes a worksheet for calculating adjusted capital and risk-weighted assets for determining capital adequacy. In the particular country involved, the capital adequacy is checked monthly by a data management and analysis system, based on the monthly report. The annual reconciliation is thus more to ensure that the reporting banks understand the methodology and to avoid disputes in borderline cases.

Summary

This guide has attempted to give the reader a better understanding of what a bank does, the risks involved in banking, and an approach to gaining insight into how well the management of a particular banking institution is able to compete in the market through an analysis of the financial statements.

Notes

1. This is particularly true in countries that require banks to document term loans through having the borrower accept time drafts corresponding to each maturity, as has been the case in the French speaking areas where the legal system has not evolved beyond simple trade transactions.

2. For example, Kenya sets a legal lending limit of 100 percent of capital—which means that the failure of a single borrower to repay can eliminate the entire capital base of the bank.

3. The new credit manager of a Thai bank related how the bank he had just joined never had a credit analysis department since virtually all their loans had been to related companies, which were thus known entities. Yet the relationship with these group companies was not evident, due to the use of holding compa-

nies and other indirect ownership techniques to hide the relationships.

4. An extreme (and real) case was a financial institution that had total capital of 20 million, loans to shareholders of 140 million, and accumulated losses of 300 million (currency and country have been omitted).

5. In the Herstatt case, the German regulatory authorities closed the bank after the normal close of business in Germany, so European currency payments due that day to Herstatt had been completed. Unfortunately, the U.S. dollar countervalue required settlement in New York, which was still open at the time Herstatt was closed down. This created some \$390 million in problems for Herstatt's main New York correspondent bank.

6. Mundane but essential—the author found a bank supervisory agency that had no record of where some of the banks it was supposed to be supervising were located!

Annex 1.

Monthly Report

Monthly Report

Assets

Liabilities and Capital

Off-Balance-Sheet

Private and confidential

M(E)

MONTHLY REPORT

As at: 19____ . ____ . ____ (year.month.day) Internal (unaudited)
 Audited - unqualified
 Audited - qualified

Submitted on: 19____ . ____ . ____ (year.month.day)

Reporting institution: _____
 (block letters please)

By: _____
 Name (block letters please) and signature of authorized official of reporting institution

In the event of a query, contact: _____
 Name (block letters please)

Tel no. _____ Ext. _____

Notes on completion

If you have any difficulty in completing this form, please telephone your bank supervisor.

- 1 This form should be completed as of the last day of the calendar month.
- 2 For definitions of items refer to the Banking Statistics definitions folder.
- 3 Enter amounts to the nearest million, omitting the 000,000s.
- 4 Enter the line total in Column 1, and the local currency equivalent (as of the reporting date) of the foreign currency component (if any) in Column 2.
- 5 Return this form within **FOURTEEN CALENDAR DAYS** of the reporting date, clearly addressed to:

BANKING SUPERVISION
 Address
 City
- 6 Forms may also be delivered at the Secretariat, Banking Supervision, at the above address. Envelopes should be clearly addressed as above.

Banking Supervision use only		
Logged in	Data entered	Data verified

I. Assets

		Millions	
Item no.		Column 1 Total	Column 2 Of which other currencies
1.	Cash		
	a) Currency - domestic and Zone A notes and coin		
	b) Balances with the Central Bank, including mandatory reserves		
	c) Notes and coin from non-Zone A countries		
2.	Liquid assets - marketable or eligible for refinancing with the Central Bank		
	a) Domestic Treasury Bills		
	b) Other bills and securities eligible for refinancing with the Central Bank		
	ba) Government risk		
	bb) Other risk, including trade bills and acceptances discounted		
3.	Loans and advances to credit institutions		
	a) Foreign Treasury Bills		
	aa) Zone A countries		
	ab) Other		
	b) Sight deposits		
	ba) With unrelated domestic and Zone A credit institutions		
	bb) With other foreign banks		
	c) Money market deposits of one year or less, including certificates of deposits and placements		
	ca) With unrelated domestic and Zone A banks		
	cb) With unrelated domestic financial institutions		
	cc) With other foreign banks		
	d) Loans and advances to related credit institutions including deposits and placements		
	e) Other loans and advances to credit institutions		
	f) Debit items in course of collection		
4.	Loans and advances to customers other than those reported in 2.b		
	a) Non-rediscountable bills and factoring		
	b) Other short term loans and advances with original maturity of one year or less		
	c) Term loans with original maturity of over one year		
	d) Mortgage loans that are fully secured by residential property that is or will be occupied by borrower or is rented		
	e) Less loan losses reserves		
5.	Assets leased out under finance leases		
	a) Financial leasing assets		
	b) Less accumulated depreciation		
6.	Bonds and other fixed interest marketable securities		
	a) Domestic government securities other than those reported in 2		
	aa) Issued by the Central Government and related public authorities		
	ab) Issued by local governments and related local authorities		
	b) Securities issued by others		
	c) Own debt securities		

I. Assets (cont.)

Item no.	Millions	
	Column 1 Total	Column 2 Of which other currencies
7. Shares and other non-fixed interest (variable yield) securities		
a) Ordinary trading position in securities		
b) Temporary holdings of securities undergoing placement		
c) Other variable yield securities		
8. Own shares		
9. Participating interest and other financial investments		
a) In other credit institutions		
b) In other business undertakings		
c) Other financial investments		
10. Majority interests		
a) In other credit institutions		
b) In other business undertakings		
11. Intangible assets net of amortization		
12. Tangible assets net of depreciation		
a) Tangible assets used for banking business		
aa) Land and buildings		
ab) Technical equipment, machines and vehicles		
ac) Other furniture, fixtures and fittings		
ad) Construction in progress		
ae) Less accumulated depreciation		
b) Non-banking tangible assets (net)		
13. Other assets		
a) Items in suspense		
b) Other assets		
Total Assets		

II. Liabilities & Capital

Item no.	Millions	
	Column 1 Total	Column 2 Of which other currencies
1. Amounts owed to credit institutions		
a) Domestic Central Bank		
aa) Refinance (secured)		
ab) Unsecured, including overdrafts		
b) Commercial Banks		
ba) Repayable on demand		
bb) With agreed maturity dates or periods of notice		
c) Other financial institutions		
ca) Repayable on demand		
cb) With agreed maturity dates or periods of notice		
d) Borrowings from international financial agencies		
2. Amounts owed to customers		
a) Sight deposits including all chequing accounts but <i>excluding</i> non-chequing savings accounts		
b) Time deposits with agreed maturity dates		
ba) With original maturity of one year or less		
bb) With original maturity of over one year		
c) Savings deposits <i>excluding</i> interest bearing chequing accounts		
ca) Repayable on demand		
cb) With agreed periods of notice of one year or less		
cc) With agreed periods of notice of over one year		
d) Other deposits including certificates of deposit and other non-negotiable debt instruments		
da) With original maturity of one year or less		
db) With original maturity of over one year		
3. Bonds and other negotiable securities issued		
a) Bonds		
b) Other unsubordinated, unsecured debt securities		
4. Other liabilities		
a) Interest payable		
b) Taxes payable		
c) Items in suspense (excluding internal accounts)		
d) Credit items in course of transmission		
e) Other liabilities		
5. Accruals and deferred income		
a) Unearned income, discounts and premia		
b) Accrued expenses		
c) Bonuses and other benefits payable to staff relating to the prior year		

II. Liabilities & Capital (cont.)

		Millions	
Item no.		Column 1 Total	Column 2 Of which other currencies
6.	Provisions		
	a) Provisions for losses other than shown in I.4.e		
	b) Provisions for interest not yet received		
	c) Legal claims relating to the reporting period and known to the bank prior to issuance of the balance sheet		
	d) Other provisions		
7.	Subordinated liabilities		
	a) Due in five years or less		
	b) Due in over five years		
8.	Minority interest		
9.	Dividends payable		
	Total Liabilities		
10.	Primary capital		
	a) Paid up capital		
	aa) Subscribed capital		
	ab) Less subscribed capital not yet paid		
	b) Capital reserve		
	ba) Share premium account		
	bb) Other		
	c) Revenue reserve		
	ca) Undivided profit/(loss) from prior years		
	cb) Preliminary profit/(loss) from the previous year		
	cc) Less loss for the current year		
11.	Supplementary capital		
	a) General provisions		
	b) Profit for the current year		
	c) Other supplementary capital		
	Total Capital		
	Total Liabilities and Capital		

III. Off-Balance-Sheet

Item no.	Millions	
	Column 1 Total	Column 2 Of which other currencies
1. Contingent liabilities		
a) Full risk off-balance-sheet items		
b) Medium risk contingent liabilities		
c) Medium/low risk contingent liabilities		
d) Low risk contingent liabilities		
e) Forward interest rate risk contracts outstanding		
ea) With remaining maturity of one year or less		
eb) With remaining maturity over one year		
f) Forward foreign exchange contracts outstanding		
fa) With remaining maturity of one year or less		
fb) With remaining maturity over one year		
2. Future commitments		
a) Repurchase obligations under sale and repurchase agreements		
b) Other		

Other Information

3. Capital adequacy adjustment items consolidated in the balance sheet with assets having a higher risk weighting		
a) Class A - 0% risk assets		
b) Class B - 20% risk assets		
c) Class C - 50% risk assets		
4. Supplemental information for measuring compliance with statutory requirements		
a) Net liquid assets		
b) Risk weighted assets		
c) Adjusted capital		
	Number	
5. Staffing		
a) Officers		
b) Non-officers		

Annex 2.

Quarterly Report

Quarterly Report

Statement of Profit and Loss

Maturity Profile

Portfolio Analysis

Top Users of Funds

Top Sources of Funds

*Credit to and Investments in Unconsolidated Related
Companies*

Credit to and Investments in Major Shareholders

Credit to Policy Level Managers

Sectoral Concentration Analysis

Foreign Exchange Assets

Foreign Exchange Liabilities

Foreign Exchange Maturity Profile (Net)

Private and confidential

Q(E)

QUARTERLY REPORT

For the quarter ending on: 19____ . ____ . ____ (year.month.day) Internal - unaudited
 Audited - unqualified
 Audited - qualified

Submitted on: 19____ . ____ . ____ (year.month.day)

Reporting institution: _____
 (block letters please)

By: _____
 Name (block letters please) and signature of authorized official of reporting institution

In the event of a query, contact: _____
 Name (block letters please)
 Tel no. _____ Ext. _____

Notes on completion

If you have any difficulty in completing this form, please telephone your bank supervisor .

- 1 This form should be completed as of the last day of the calendar quarter ending March, June, September and December.
- 2 For definitions of items refer to the Banking Statistics Definitions folder.
- 3 Enter amounts to the nearest million, omitting 000,000s.
- 4 Enter income and expense data for the reporting quarter in column 1 of the Statement of Profit and Loss, year-to-date cumulative data in column 2.
- 5 Enter the local currency equivalent of any foreign currency amounts as of the reporting date.
- 6 Return this form within **FOURTEEN CALENDAR DAYS** of the reporting date, clearly addressed to:

BANKING SUPERVISION
 Address
 City
- 7 Forms may also be delivered at the Secretariat, Banking Supervision Agency. Envelopes should be clearly addressed as above.

Banking Supervision use only		
Logged in	Data entered	Data verified

IV. Statement of Profit & Loss

Item no.	Millions	
	Current quarter	Year to date
1. Interest and similar income	+	
a) Interest on loans		
aa) Treasury bills not including other rediscountable bills		
ab) Loans and advances to credit institutions		
ac) Loans and advances to customers including rediscountable bills		
ad) Bonds and other fixed interest marketable securities		
b) Gains from market rate increases similar to interest		
c) Loan related fee income		
d) Income on forward contracts		
e) Other interest income		
2. Interest expense and similar charges	-	
a) Amounts owed to credit institutions		
b) Amounts owed to customers		
ba) Demand deposit accounts		
bb) Time deposits with original maturity of less than 1 year		
bc) Time deposits with original maturity of 1 year or more		
bd) Savings accounts, on demand or with agreed periods of notice of one year or less		
be) Savings accounts, with agreed periods or notice of more than one year		
bf) Certificates of deposit and other deposit substitutes		
c) Bonds and other negotiable securities issued		
d) Other interest expense		
3. Net interest differential income	=	
4. Other operating income other than related to loans and advances	+	
a) Income from securities and equity investments		
aa) Shares and other variable yield securities		
ab) Participating interest		
ac) Shares in affiliated undertakings		
b) Service charges, transaction fees and commissions		
ba) Income earned		
bb) Less expense incurred		
c) Profit/(loss) on financial operations		
ca) Dealings in securities		
cb) Placement of securities		
cc) Trading gain/(loss) on foreign exchange		
cd) Other		
d) Income from lease financing receivables		
da) Lease payments received		
db) Less depreciation on leased assets		
e) Rents received		
f) Other operating income		
5. Gross operating income/(loss)	=	

IV. Statement of Profit and Loss (cont.)

Item no.	Millions	
	Current quarter	Year to date
6. Administrative expenses -		
a) Salaries and employee benefits		
aa) Salaries		
ab) Other benefits		
ac) Social security costs		
b) Rents paid		
c) Depreciation and amortization excluding 6.d)		
d) Amortization of consolidation goodwill		
e) Other operating expenses		
7. Net operating income/(loss) =		
8. Loan loss provision expense -		
a) Bad debt expense and loan loss provisions		
b) Less recoveries and loan loss provisions written back		
9. Write down of participating interests & other financial investments & loss/(gain) on sale -		
10. Net income/(loss) before tax and extraordinary items =		
11. Extraordinary gains/(losses) including prior period adjustments +		
a) Extraordinary gains		
b) Less extraordinary losses		
12. Net income/(loss) before tax =		
13. Income tax -		
14. Net income/(loss) =		
15. Minority interest -		
16. Dividends declared -		
17. Transfer to profit/(loss) for the current year =		

V. Maturity Profile

(Millions)

FINANCIAL ASSETS

1 Item	2 Balance Sheet category	3 0-90 days	4 91-180 days	5 181-365 days	6 1-5 years	7 Over 5 years	8 Total
I.1.	Cash in hand						
I.2.	Treasury bills and other bills eligible for refinancing						
I.3.	Loans and advances to credit institutions						
I.4.	Loans and advances to customers						
I.5.	Assets leased out under financial leases						
I.6.	Bonds and other fixed interest marketable securities						
Total Financial Assets							

FINANCIAL LIABILITIES

1 Item	2 Balance Sheet category	3 0-90 days	4 91-180 days	5 181-365 days	6 1-5 years	7 Over 5 years	8 Total
II.1.	Amounts owed to credit institutions						
II.2.	Amounts owed to customers						
II.3.	Bonds and other negotiable securities issued						
III.1.	Contingent liabilities						
Total Financial Liabilities							

1 Item	2 Balance Sheet category	3 0-90 days	4 91-180 days	5 181-365 days	6 1-5 years	7 Over 5 years	8 Total
Net Financial Assets/Liabilities maturing in each maturity range							

NOTE: Please detail all major balance sheet categories by *REMAINING* maturity.

VI. Portfolio Analysis

(Millions)

Past Due Aging

A. RISK ASSETS by maturity

Item	Balance Sheet category	Current	1-30 days	31-90 days	91-180 days	181-365 days	1-2 years	Over 2 years	Renegotiated
1.3.	Loans and advances to credit institutions								
1.4.	Loans and advances to customers								
1.5.	Assets leased out under financial leases								
1.6.	Bonds and other fixed interest marketable securities								
Total Risk Assets excluding equity investments									

B. RISK ASSETS including ALL related exposure in the latest category applicable

Item	Balance Sheet category	Current	1-30 days	31-90 days	91-180 days	181-365 days	1-2 years	Over 2 years	Renegotiated
1.3.	Loans and advances to credit institutions								
1.4.	Loans and advances to customers								
1.5.	Assets leased out under financial leases								
1.6.	Bonds and other fixed interest marketable securities								
Total Risk Assets excluding equity investments									

Risk Classification

C. RISK ASSETS by degree of risk

Item	Balance Sheet category	Normal	Substandard	Reserves	Doubtful	Reserves	Loss	Reserves
1.2.	Treasury bills and other bills eligible for refinancing with the Central Bank							
1.3.	Loans and advances to credit institutions							
1.4.	Loans and advances to customers							
1.5.	Assets leased out under financial leases							
1.6.	Bonds and other fixed interest marketable securities							
1.7-10.	Equity Investments							
Total Risk Assets including equity investments								

VII/A Top users of funds

(Millions)

1 Line	2 Client	3 Tax ID	4 Sector code	5 Max days past due	6 Classifi- cation	7 Loans & leases	8 Debt & equity investments	9 Contingent & future liabilities	10 Total
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25	Total other users								
	Total								

VII/B Top sources of funds

(Millions)

1 Line	2 Client	3 Tax ID	4 Sector code	5 Sight deposits	6 Time deposits	7 Savings	8 Other deposits	9 Bonds & securities	10 Total
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25	Total other sources								
	Total								

VIII/A Credit to and investments in unconsolidated related companies

(Millions)

1 Line	2 Affiliate or group company	3 % shares owned	4 Tax ID	5 Sector code	6 Max days past due	7 Classifi- cation	8 Loans & leases	9 Debt & equity Investments	10 Contingent & future liabilities	11 Total
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25	All other unconsolidated affiliates									
	Total									

VIII/B Credit to and investments in major shareholders

(Millions)

1 Line	2 Individual or company shareholder	3 % shares outstanding	4 Tax ID	5 Sector code	6 Max days past due	7 Classifi- cation	8 Loans & leases	9 Debt & equity Investments	10 Contingent & future liabilities	11 Total
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
Total										

VIII/C Credit to policy level managers

(Millions)

1 Line	2 Individual	3 Title	4 Current		5 Short Term	6 Term Loans	7 Mortgage	8 Other Credit	9 Total Loans	10 Security Held
			Yes	No						
1			<input type="checkbox"/>	<input type="checkbox"/>						
2			<input type="checkbox"/>	<input type="checkbox"/>						
3			<input type="checkbox"/>	<input type="checkbox"/>						
4			<input type="checkbox"/>	<input type="checkbox"/>						
5			<input type="checkbox"/>	<input type="checkbox"/>						
6			<input type="checkbox"/>	<input type="checkbox"/>						
7			<input type="checkbox"/>	<input type="checkbox"/>						
8			<input type="checkbox"/>	<input type="checkbox"/>						
9			<input type="checkbox"/>	<input type="checkbox"/>						
10			<input type="checkbox"/>	<input type="checkbox"/>						
11			<input type="checkbox"/>	<input type="checkbox"/>						
12			<input type="checkbox"/>	<input type="checkbox"/>						
13			<input type="checkbox"/>	<input type="checkbox"/>						
14			<input type="checkbox"/>	<input type="checkbox"/>						
15			<input type="checkbox"/>	<input type="checkbox"/>						
16			<input type="checkbox"/>	<input type="checkbox"/>						
17			<input type="checkbox"/>	<input type="checkbox"/>						
18			<input type="checkbox"/>	<input type="checkbox"/>						
19			<input type="checkbox"/>	<input type="checkbox"/>						
20			<input type="checkbox"/>	<input type="checkbox"/>						
21			<input type="checkbox"/>	<input type="checkbox"/>						
22			<input type="checkbox"/>	<input type="checkbox"/>						
23			<input type="checkbox"/>	<input type="checkbox"/>						
24			<input type="checkbox"/>	<input type="checkbox"/>						
Total										

X/A Foreign exchange assets

(Millions)

Foreign Exchange	Balance sheet items						Off-balance sheet items		Of which equity investments
	Deposit and loan assets			Other spot assets	Total spot assets	Of which government guaranteed	Total forward purchases	Other foreign exchange assets	
	Domestic financial sector	Other domestic residents	Foreign residents						
1	2	3	4	5=1+2+3+4	6	7	8	9	
ATS									
AUD									
BEF									
CAD									
CHF									
DEM									
DKK									
ESP									
FIM									
FRF									
GBP									
ITL									
JPY									
NLG									
NOK									
PTE									
SEK									
USD									
ECU									
Gold									
Other									
TOTAL									

X/B Foreign exchange liabilities

(Millions)

Foreign exchange	Balance sheet items					Off-balance sheet items		Of which investment liabilities
	Deposit and loan liabilities			Other spot liabilities	Total spot liabilities	Total forward sales	Other forex obligations	
	Domestic financial sector	Other domestic residents	Foreign residents					
	1	2	3	4	5 = 1 + 2 + 3 + 4	6	7	8
ATS								
AUD								
BEF								
CAD								
CHF								
DEM								
DKK								
ESP								
FIM								
FRF								
GBP								
ITL								
JPY								
NLG								
NOK								
PTE								
SEK								
USD								
ECU								
Gold								
Other								
TOTAL								

X/C Foreign exchange maturity profile (net)

(Millions)

Foreign exchange	0-30 days 1	31-60 days 2	61-90 days 3	91-180 days 4	181-365 days 5	1-2 years 7	Over 2 years 8	Total 9 = 1...8
AUD								
ATS								
BEF								
CAD								
CHF								
DEM								
DKK								
ESP								
FIM								
FRF								
GBP								
ITL								
JPY								
NLG								
NOK								
PTE								
SEK								
USD								
ECU								
Gold								
Other								
TOTAL								

Annex 3.

Annual Report

Annual (Periodic) Report

Basic Information on the Credit Institution

Information on Key Managers

Board of Directors

Supervisory Board

Shareholders

Branch Information

Calculation of Capital for Capital Adequacy

Calculation of Risk-weighted Assets

Private and confidential

A(E)

ANNUAL (PERIODIC) REPORT

As at: 19____ . ____ . ____ (year.month.day) XI XIV
 XII XV (no: _____)
 XIII/A XVI/A
 XIII/B XVI/B

Submitted on: 19____ . ____ . ____ (year.month.day)

Reporting institution: _____
(block letters please)

By: _____
Name (block letters please) and signature of authorized official of reporting institution

In the event of a query, contact: _____
Name (block letters please)

Tel no. _____ Ext. _____

Notes on completion

If you have any difficulty in completing this form, please telephone your bank supervisor.

- 1 This form should be completed as of the last day of the calendar month.
- 2 For definitions of items refer to the Banking Statistics definitions folder.
- 3 Submission schedule:

XI	1,4	XIV	1,4
XII	1,3	XV	2,4
XIII/A	1,4	XVI/A	2
XIII/B	1,4	XVI/B	2

(1 = within ten business days of year end.
2 = by May 31, as of the end of the previous year.
3 = interim reports during the year within two months of any change.
4 = each change during the year with the next monthly report.)
- 4 Enter amounts to the nearest million, omitting 000,000s.
- 5 Return this form by the reporting date, clearly addressed to:

BANKING SUPERVISION
Address
City
- 6 Forms may also be delivered at the Secretariat, Banking Supervision, at the above address. Envelopes should be clearly addressed as above.

Banking Supervision use only		
Logged in	Data entered	Data verified

XI. Basic information on the credit institution

1. Name of reporting credit institution
2. International name, if different
3. Street address
 - a) city/town
 - b) street, number
 - c) postal code
4. Mailing address
 - a) city/town
 - b) postal code
 - c) post office box
5. Wire numbers
 - a) telephone
 - b) fax
 - c) telex
6. Parent bank, if any
7. Clearing bank
8. Authorized capital (millions)
9. Paid-up capital (millions)
10. Name of lead auditor
11. Name of auditing company
12. Per value of issued and outstanding shares
Total par value of registered shares
Total par value of bearer shares

XII. Information on key managers

1. Chief Executive Officer

- a) Name family given
- b) Title
- c) Telephone number

2. Chief Financial Officer

- a) Name family given
- b) Title
- c) Telephone number

3. Chief Credit Officer

- a) Name family given
- b) Title
- c) Telephone number

4. Primary contact with bank supervision

- a) Name family given
- b) Title
- c) Telephone number

5. Individual responsible for submitting reports

- a) Name family given
- b) Title
- c) Telephone number

XIII/A Board of Directors

Line	Family name	Given name	Employment	Title
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				

XIII/B Supervisory Board

Line	Family name	Given name	Employment	Title
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				

XIV. Shareholders

Line	Name	Shares		
		Number Owned	%	
			Domestic	Foreign
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.	All other registered shareholders			
	Total registered shares			
31.	Total unregistered shares			
	Total shares			

XV. Branch information

1. Branch code _____
2. Branch name _____
3. Branch type _____
4. Street address
 - a) city/town _____
 - b) street, number _____
 - c) postal code _____
5. Mailing address
 - a) city/town _____
 - b) postal code _____
 - c) post office box _____
6. Wire numbers
 - a) telephone _____
 - b) fax _____
 - c) telex _____
7. Branch manager's name _____
8. Number of sub-branches _____

9. Annual financial statistics

- a) total loans (millions)

--
- b) total deposits (millions)

--
- c) net income (millions)

--
- d) staffing (number)

--

XVI/A Calculation of capital for capital adequacy

Line	Millions
	Balance Sheet data
1. Total capital as reported on the balance sheet (II/10)	
a) Primary capital (II/10)	
b) Secondary capital (II/11)	
2. Exclusions from capital	
a) Own shares repurchased (I/8/b)	
b) Intangible assets (I/11)	
c) Ineligible secondary capital (amount by which 1.b that exceeds 50% of 1.a)	
d) Investments in credit institutions (I/9/a + I/10/a)	
3. Corrected capital for capital adequacy purposes (7 - 8)	
4. Total risk weighted assets (from XVI/B)	
5. Capital adequacy ratio (3 / 4 x 100)	<div style="display: flex; align-items: center; justify-content: center;"> -- / -- % </div>

_____, 19 ____ . ____ . ____

Chief Executive Officer

Chairman of the Board

Chief external auditor

External auditing firm

XVI/B Calculation of risk-weighted assets (cont.)

Line	Millions	
	Balance sheet data	Risk weighted value
7. Shares and other non-fixed interest (variable yield) securities	<input type="text"/>	<input type="text"/>
a) Ordinary trading position in securities	<input type="text"/> x 100% =	<input type="text"/>
b) Temporary holdings of securities undergoing placement	<input type="text"/> x 100% =	<input type="text"/>
c) Other variable yield securities	<input type="text"/> x 100% =	<input type="text"/>
8. Own shares repurchased	<input type="text"/> x 0% =	<input type="text"/>
9. Participating interest and other financial investments	<input type="text"/>	<input type="text"/>
a) In other credit institutions	<input type="text"/> x 0% =	<input type="text"/>
b) In other business undertakings	<input type="text"/> x 100% =	<input type="text"/>
c) Other financial investments	<input type="text"/> x 100% =	<input type="text"/>
10. Majority interests	<input type="text"/>	<input type="text"/>
a) In other credit institutions	<input type="text"/> x 0% =	<input type="text"/>
b) In other business undertakings	<input type="text"/> x 100% =	<input type="text"/>
11. Intangible assets net of amortization	<input type="text"/> x 0% =	<input type="text"/>
12. Tangible assets net of depreciation	<input type="text"/>	<input type="text"/>
a) Tangible assets used for banking business	<input type="text"/>	<input type="text"/>
aa) Land and buildings	<input type="text"/> x 100% =	<input type="text"/>
ab) Technical equipment, machines and vehicles	<input type="text"/> x 100% =	<input type="text"/>
ac) Other furniture, fixtures and fittings	<input type="text"/> x 100% =	<input type="text"/>
ad) Construction in progress	<input type="text"/> x 100% =	<input type="text"/>
ae) Less accumulated depreciation	<input type="text"/> x 100% =	<input type="text"/>
b) Non-banking tangible assets	<input type="text"/> x 100% =	<input type="text"/>
13. Other assets	<input type="text"/>	<input type="text"/>
a) Items in suspense	<input type="text"/> x 100% =	<input type="text"/>
b) Other assets	<input type="text"/> x 100% =	<input type="text"/>
Total Assets	<input type="text"/>	<input type="text"/>

XVI/B Calculation of risk weighted assets Assets (I)

Line	Balance sheet data	Millions	Risk weighted value
1. Cash	<input style="width: 100%; height: 20px;" type="text"/>		<input style="width: 100%; height: 20px;" type="text"/>
a) Currency Domestic and zone "A" notes and coin	<input style="width: 100%; height: 20px;" type="text"/>	x 0% =	<input style="width: 100%; height: 20px;" type="text"/>
b) Balances with the Central Bank including mandatory reserves	<input style="width: 100%; height: 20px;" type="text"/>	x 0% =	<input style="width: 100%; height: 20px;" type="text"/>
c) Notes and coin from non-Zone A countries	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
2. Treasury bills and other bills eligible for refinancing with the Central Bank ..	<input style="width: 100%; height: 20px;" type="text"/>		<input style="width: 100%; height: 20px;" type="text"/>
a) Domestic Treasury Bills	<input style="width: 100%; height: 20px;" type="text"/>	x 0% =	<input style="width: 100%; height: 20px;" type="text"/>
b) Other bills and securities eligible for refinancing with the Central Bank ..	<input style="width: 100%; height: 20px;" type="text"/>	x 0% =	<input style="width: 100%; height: 20px;" type="text"/>
ba) Domestic government risk	<input style="width: 100%; height: 20px;" type="text"/>	x 0% =	<input style="width: 100%; height: 20px;" type="text"/>
bb) other risk, including trade bills and acceptances discounted	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
3. Loans and advances to credit institutions	<input style="width: 100%; height: 20px;" type="text"/>		<input style="width: 100%; height: 20px;" type="text"/>
a) Foreign Treasury Bills	<input style="width: 100%; height: 20px;" type="text"/>	x 0% =	<input style="width: 100%; height: 20px;" type="text"/>
aa) Zone A countries	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
ab) Other	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
b) Sight deposits	<input style="width: 100%; height: 20px;" type="text"/>		<input style="width: 100%; height: 20px;" type="text"/>
ba) With unrelated domestic and Zone A credit institutions	<input style="width: 100%; height: 20px;" type="text"/>	x 20% =	<input style="width: 100%; height: 20px;" type="text"/>
bb) With other foreign banks	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
c) Money market deposits of one year or less	<input style="width: 100%; height: 20px;" type="text"/>		<input style="width: 100%; height: 20px;" type="text"/>
ca) With unrelated domestic and Zone A banks	<input style="width: 100%; height: 20px;" type="text"/>	x 20% =	<input style="width: 100%; height: 20px;" type="text"/>
cb) With unrelated domestic financial institutions	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
cc) With other foreign banks	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
d) Loans and advances to related credit institutions	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
e) Other loans and advances to credit institutions	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
f) Debit items in course of collection	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
4. Loans and advances to customers other than those reported in 2.b	<input style="width: 100%; height: 20px;" type="text"/>		<input style="width: 100%; height: 20px;" type="text"/>
a) Non-rediscountable bills and factoring	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
b) Other short term loans with original maturity of one year or less	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
c) Term loans with original maturity of over one year	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
d) Mortgage loans that are fully secured by residential property	<input style="width: 100%; height: 20px;" type="text"/>	x 50% =	<input style="width: 100%; height: 20px;" type="text"/>
e) Less loan loss provisions	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
5. Assets leased out under finance leases	<input style="width: 100%; height: 20px;" type="text"/>		<input style="width: 100%; height: 20px;" type="text"/>
a) Financial leasing assets	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
b) Less accumulated depreciation	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
6. Bonds and other fixed interest marketable securities	<input style="width: 100%; height: 20px;" type="text"/>		<input style="width: 100%; height: 20px;" type="text"/>
a) Domestic government securities other than those reported in 2	<input style="width: 100%; height: 20px;" type="text"/>		<input style="width: 100%; height: 20px;" type="text"/>
aa) Issued by the Central Government and related public authorities ..	<input style="width: 100%; height: 20px;" type="text"/>	x 0% =	<input style="width: 100%; height: 20px;" type="text"/>
ab) Issued by local governments and related local authorities	<input style="width: 100%; height: 20px;" type="text"/>	x 20% =	<input style="width: 100%; height: 20px;" type="text"/>
b) Securities issued by others	<input style="width: 100%; height: 20px;" type="text"/>	x 100% =	<input style="width: 100%; height: 20px;" type="text"/>
c) Own debt securities	<input style="width: 100%; height: 20px;" type="text"/>	x 0% =	<input style="width: 100%; height: 20px;" type="text"/>

Annex 4.

Sample Financial Analysis

Profit and Loss

Assets

Liabilities

Capital

Off-Balance-Sheet

Balance Sheet Analysis

Performance Analysis

Explanation

Commercial Bank	06/30/89	%	06/30/90	%	12/31/90	%	03/31/91	%
Profit & Loss								
INTEREST INCOME	18,608	100	27,826	100	16,151	100	8,240	100
Interest on Loans	18,608	100	27,826	100	16,151	100	8,237	100
Liquid assets	0		0		911	6	0	
Loans to credit institutions	963	5	1,488	5	697	4	534	6
Loans to customers	17,256	93	25,899	93	14,398	89	7,697	93
Marketable debt securities	389	2	440	2	146	1	6	0
Other interest income	0		0		0		4	0
INTEREST EXPENSE	13,029	70	17,609	63	12,387	77	6,262	76
Amounts owed to credit instit.	9,014	48	11,896	43	8,090	50	3,582	43
Amounts owed to customers	4,016	22	5,713	21	4,222	26	2,552	31
Demand deposit accounts	0		0		0		0	
Time deposits	2,194	12	3,343	12	2,400	15	1,622	20
Savings accounts	1,822	10	2,370	9	1,822	11	930	11
Other funding liabilities	0		0		75	0	129	2
NET INTEREST DIFFERENTIAL INC.	5,579	55	10,217	60	3,764	58	1,978	60
OTHER OPERATING INCOME	4,637	45	6,797	40	2,782	42	1,300	40
Service charges and fees	4,615	45	6,685	39	2,757	42	1,292	39
Income earned	4,616	45	6,687	39	2,758	42	1,294	39
Less expense incurred	(1)	(0)	(2)	(0)	(1)	(0)	(2)	(0)
Other operating income	22	0	113	1	25	0	8	0
Rents received	20	0	22	0	11	0	9	0
Other	2	0	91	1	14	0	(1)	(0)
GROSS OPERATING INCOME/(LOSS)	10,216	100	17,014	100	6,546	100	3,278	100
OPERATING EXPENSES	3,303	32	4,337	25	3,001	46	2,317	71
Salaries and employee benefits	1,958	19	2,054	12	1,546	24	1,310	40
Salaries	384	4	573	3	425	6	290	9
Other benefits	1,574	15	1,481	9	1,122	17	1,020	31
Rents paid	17	0	31	0	0		67	2
Other occupancy	393	4	556	3	530	8	255	8
Taxes and licenses	40	0	216	1	208	3	115	4
Depreciation	211	2	283	2	0		8	0
Other administrative expenses	344	3	583	3	321	5	256	8
Other operating expenses	341	3	615	4	396	6	306	9
NET OPERATING INCOME/(LOSS)	6,913	68	12,677	75	3,545	54	961	29
LOAN LOSS PROVISION EXPENSE	3,113	30	3,062	18	0		(0)	(0)
Bad debt and provision expense	3,113	30	3,074	18	0		0	
Less recoveries	0		(12)	(0)	0		(0)	(0)
INCOME/(LOSS) BEFORE EXTRAORD.	3,800	37	9,616	57	3,545	54	961	29
EXTRAORDINARY GAINS/(LOSSES)	(165)	(2)	0		0		0	
Extraordinary gains	0		0		0		0	
Extraordinary losses	(165)	(2)	0		0		0	
NET INCOME/(LOSS) BEFORE TAX	3,635	36	9,616	57	3,545	54	961	29
INCOME TAX	2,327	23	4,949	29	1,773	27	484	15
NET INCOME/(LOSS)	1,308	13	4,666	27	1,773	27	477	15
Transfer to general reserves	1,223	12	0		0		0	
Income/(loss) after reserves	85	1	4,666	27	1,773	27	477	15
Minority interest	0		0		0		0	
Dividends declared	85	1	0		0		0	
To/(from) undivided profit	(0)	(0)	4,666	27	1,773	27	477	15

Commercial Bank	06/30/89	%	06/30/90	%	12/31/90	%	03/31/91	%
Assets								
CASH	3,993	1	4,426	1	5,493	1	4,784	1
Currency, Domestic and Zone A	1,562	0	2,285	0	3,293	1	2,563	0
Balances with Central Bank	2,278	1	1,951	0	1,951	0	1,951	0
Other currency	153	0	189	0	249	0	270	0
LIQUID ASSETS	0		0		0		0	
Domestic treasury bills	0		0		0		0	
Other rediscountable securit	0		0		0		0	
Government risk	0		0		0		0	
Commercial risk	0		0		0		0	
LOANS TO CREDIT INSTITUTIONS	28,947	9	39,257	9	30,130	6	25,022	5
Sight deposits	28,071	8	38,307	8	28,887	5	24,033	5
Money Market deposits	42	0	117	0	409	0	155	0
Unrelated Domestic & Zone A	0		0		0		0	
Unrelated Domestic NBFIs	42	0	117	0	409	0	155	0
Other foreign credit inst.	0		0		0		0	
Other interbank loans	834	0	834	0	834	0	834	0
Debit collections	0		0		0		0	
LOANS TO CUSTOMERS	87,066	26	109,721	24	135,947	25	135,165	26
Non rediscountable bills	2,389	1	3,334	1	7,055	1	9,014	2
ST loans and advances	64,314	19	89,626	19	102,054	19	93,288	18
Term loans	20,363	6	16,761	4	26,837	5	32,863	6
Mortgage loans	0		0		0		0	
Less loan loss reserves	0		0		0		0	
MARKETABLE DEBT SECURITIES	3,562	1	3,712	1	3,712	1	3,693	1
Domestic government securities	3,466	1	3,466	1	3,466	1	3,447	1
Central government	3,466	1	3,466	1	3,466	1	3,447	1
Local government	0		0		0		0	
Issued by others	96	0	246	0	246	0	246	0
TANGIBLE ASSETS (net)	4,603	1	7,388	2	9,214	2	10,153	2
Banking assets	4,603	1	7,388	2	9,214	2	10,153	2
Land and Buildings	3,888	1	6,191	1	7,627	1	8,220	2
Equipment	1,236	0	1,999	0	2,391	0	2,739	1
Furniture and fixtures	0		0		0		0	
Construction in progress	0		0		0		0	
Less accum. depreciation	(521)		(803)		(803)		(806)	
Non-banking assets	0		0		0		0	
OTHER ASSETS	210,724	62	295,647	64	356,024	66	335,432	65
Items in suspense	210,542	62	295,321	64	355,699	66	335,077	65
Other assets	181	0	327	0	325	0	355	0
PREPAYMENTS AND ACCRUED INCOME	0		0		0		264	0
TOTAL ASSETS	338,894	100	460,151	100	540,520	100	514,513	100

Commercial Bank	06/30/89	%	06/30/90	%	12/31/90	%	03/31/91	%
Liabilities								
AMOUNTS OWED TO CREDIT INST.	63,318	19	63,257	14	70,723	13	58,591	11
Domestic Central Bank	58,597	17	56,092	12	62,156	11	47,157	9
Rediscount	0		0		0		0	
Other	58,597	17	56,092	12	62,156	11	47,157	9
Banks	463	0	1,406	0	427	0	380	0
Repayable on demand	463	0	1,406	0	427	0	380	0
With agreed maturity or call	0		0		0		0	
Financial institutions	4,258	1	5,758	1	8,139	2	11,055	2
Repayable on demand	1,188	0	1,713	0	2,220	0	2,863	1
With agreed maturity or call	3,071	1	3,985	1	5,919	1	8,192	2
Borrowings from int'l agencies	0		0		0		0	
AMOUNTS OWED TO CUSTOMERS	50,827	15	75,917	16	89,833	17	92,084	18
Sight deposits	27,797	8	37,880	8	46,331	9	46,948	9
Time deposits	12,478	4	21,437	5	24,643	5	25,072	5
Maturity of 1 year or less	12,478	4	21,437	5	24,643	5	25,072	5
Maturity over 1 year	0		0		0		0	
Savings deposits	10,130	3	13,503	3	15,409	3	16,013	3
Other deposits	422	0	3,096	1	3,450	1	4,051	1
OTHER LIABILITIES	210,936	62	297,558	65	353,106	65	342,663	67
Interest payable	1,774	1	2,878	1	4,604	1	5,921	1
Taxes payable	0		0		0		0	
Items in suspense	103,875	31	152,188	33	210,187	39	190,322	37
Credit items in transmission	1,223	0	1,571	0	3,578	1	4,600	1
Other liabilities	104,065	31	140,921	31	134,737	25	141,821	28
ACCRUALS AND DEFERRED INCOME	1,655	0	1,549	0	1,718	0	2,346	0
Unearned income	0		0		0		0	
Accrued expenses	106	0	0		169	0	0	
Bonuses and benefits payable	1,549	0	1,549	0	1,549	0	2,346	0
PROVISIONS	3,765	1	6,946	2	6,884	1	6,345	1
Specific loan loss provisions	3,449	1	6,515	1	6,502	1	5,798	1
Interest receivable	306	0	422	0	360	0	525	0
Other provisions	9	0	9	0	22	0	22	0
DIVIDENDS PAYABLE	0		0		0		0	
TOTAL LIABILITIES	330,501	98	445,226	97	522,263	97	502,030	98
Capital								
PRIMARY CAPITAL	6,665	2	13,185	3	16,517	3	9,218	2
Paid in capital (net)	50	0	50	0	50	0	50	0
Authorized capital	50	0	175	0	175	0	175	0
Less unpaid capital	0		(125)		(125)		(125)	
Capital reserve	0		0		0		0	
Share premium account	0		0		0		0	
Other	0		0		0		0	
Revenue reserve	6,615	2	13,135	3	16,467	3	9,168	2
General reserves	6,615	2	6,615	1	9,947	2	9,167	2
Undivided profit	0		6,520	1	6,520	1	1	0
Less current year loss	0		0		0		0	
SUPPLEMENTARY CAPITAL	1,728	1	1,740	0	1,740	0	3,265	1
General provisions	0		0		0		0	
Profit for the current year	0		0		0		1,525	0
Other supplementary capital	1,728	1	1,740	0	1,740	0	1,740	0
TOTAL CAPITAL	8,393	2	14,925	3	18,257	3	12,483	2
TOTAL LIABILITIES & CAPITAL	338,894	100	460,151	100	540,520	100	514,513	100

Commercial Bank	06/30/89	%	06/30/90	%	12/31/90	%	03/31/91	%
Off-Balance-Sheet								
CONTINGENT LIABILITIES	61,567	18	78,571	17	80,160	15	86,211	17
Off-b/s credit substitutes	31,040	9	38,653	8	33,835	6	42,280	8
Medium risk contingent liab.	30,092	9	38,660	8	45,912	8	43,047	8
Medium/low risk contingent	434	0	1,257	0	414	0	885	0
Low risk contingent liab	0		0		0		0	
Balance Sheet Analysis								
Net liquid assets	-9.27%		-4.50%		-6.77%		-5.84%	
Loans and leases to customers	87,066	26	109,721	24	135,947	25	135,165	26
Customer deposits	50,827	15	75,917	16	89,833	17	92,084	18
Loan to deposit ratio	171%		145%		151%		147%	
Risk weighted assets	351,855		473,523		558,823		545,508	
Adjusted capital	8,393		14,925		18,257		12,483	
Capital adequacy ratio	2.39%		3.15%		3.27%		2.29%	
Statutory requirement	8.00%		8.00%		8.00%		8.00%	
Shortfall	19,756		22,956		26,449		31,158	
Performance Analysis (annualized)								
Earnings performance								
Return on average assets			1.17%		0.70%		0.37%	
Return on Capital			40.02%		21.20%		12.58%	
Nominal growth rates								
Loans & leases			26.02%		47.41%		-2.33%	
Customer deposits			49.36%		36.36%		10.16%	
Capital			77.84%		44.28%		-128.26%	
Staff								
Real growth rates								
Consumer Price Index	100		130		150		161	
Inflation rate			30.00%		30.00%		30.00%	
Loans & leases			-3.98%		17.41%		-32.33%	
Customer deposits			19.36%		6.36%		-19.84%	
Capital			47.84%		14.28%		-158.26%	
Staff productivity								
Return on staff expense			468.09%		229.33%		73.39%	
Nominal interest rates								
Average rate earned			20.44%		19.87%		20.03%	
Loans to credit institutions			4.36%		3.98%		7.85%	
Loans to customers			26.32%		23.25%		23.03%	
Marketable debt securities			12.09%		7.78%		0.67%	
Average rate paid			13.90%		16.40%		16.32%	
Amounts owed to credit instit.			18.80%		23.96%		22.47%	
Demand & time deposits			6.71%		7.31%		9.20%	
Savings deposits			20.06%		25.00%		24.00%	
Spread			6.54%		3.47%		3.71%	
Real interest rates								
Average rate earned			-9.56%		-10.13%		-9.97%	
Average rate paid			-16.10%		-13.60%		-13.68%	
Intermediation cost (% assets)								
Staffing expense			0.51%		0.61%		1.01%	
Occupancy expense			0.15%		0.21%		0.25%	
Taxes and licenses			0.05%		0.08%		0.09%	
Depreciation & amortization			0.07%		0.00%		0.01%	
Other administrative expenses			0.30%		0.28%		0.43%	
Loan loss prov. & writedowns			0.77%		0.00%		-0.00%	
Income taxes			1.24%		0.70%		0.37%	
Capital formation			1.17%		0.70%		0.37%	
Total intermediation cost			4.26%		2.60%		2.52%	

Explanation

The numbers provided in the sample analysis in annex 4 are from a government owned commercial bank in Africa. This institution is pending restructuring, and this example was chosen to highlight problems, which include:

- Very substantial internal clearing accounts. In effect, this institution has lost control of its internal clearing system, resulting in unreconciled interbranch transactions that show up in Other Assets and Other Liabilities, \$190 billion of which may be nettable, while some \$25 billion may be a potential loss.

- The additional assets in suspense represent claims on the central bank due to foreign exchange losses of \$120 billion that are guaranteed by the central bank.

- Not immediately visible are inadequate loan loss provisions: a portfolio analysis showed that close to 70 percent of its loans outstanding were

probably unrecoverable, requiring an increase in reserves of some \$70 billion.

- The analysis shows profitability, yet this results from accrual of interest on the non-performing loans, so the institution has actually been making substantial losses.

- This example is included since it provides some very obvious problems, and demonstrates what can happen in a country where political pressure to achieve social objectives substitutes for sound, impartial banking supervision. It also shows that the analyst must have a sound understanding of the accounting procedures on interest accrual and on recognition of the impairment of the value of assets to fully evaluate the bank's financial condition and performance.

- In addition, the gaps in information highlight banking functions that are normal in most reasonably developed financial systems but which are absent in the country used in this example.

Annex 5.

Asset Classification

FEDERAL RESERVE BANK ASSET CLASSIFICATION, 1985

Pass Assets

A pass asset is considered of sufficient quality to preclude a special mention or an adverse rating.¹ Pass assets generally are protected by the current net worth and paying capacity of the obligor or the value of the asset or underlying collateral.

Special Mentioned Assets (SM)

Assets in this category are currently protected but are potentially weak. These assets constitute an undue and unwarranted credit risk but not to the point of justifying a classification of substandard. The credit risk may be relatively minor yet constitute an unwarranted risk in light of the circumstances surrounding a specific asset. An SM rating should not be used as a compromise between pass and substandard.

Assets specially mentioned have potential weaknesses which may, if not checked or corrected, weaken the asset or inadequately protect the bank's credit position at some future date. Assets that might be detailed in this category include credits that the lending officer may be unable to properly supervise because of a lack of expertise, in inadequate loan agreement, the condition of and control over collateral, failure to obtain proper documentation, or any other deviations from prudent lending practices. Economic or market conditions that may affect the obligor in the future may warrant mention of the asset in the examination report. An adverse trend in the obligor's operations or an unbalanced position in the balance sheet that has not reached a point where the liquidation is jeopardized may best be handled by this rating

category. This category should not be used to list assets that bear risks usually associated with the particular type of financing. Any type of asset, regardless of collateral, financial stability, or responsibility of the obligor, involves certain risks. A loan secured by accounts receivable has a certain risk, but to criticize such a loan, it must be evident that the risk is increasing beyond that at which the loan originally would have been granted. A rapid increase in receivables without the bank knowing the causative factors, concentrations that lack proper credit support, lack of on-site audits, or other similar matters could lead the examiner to question the quality of the receivables and possibly rate the loan as SM. Assets in which actual, not potential, weaknesses are evident and significant should receive more serious criticism.

Adverse Classifications

As provided for in the regulations, there are three adverse classifications:

Substandard Assets

A substandard asset is inadequately protected by the current net worth and paying capacity of the obligor or of the collateral pledged, if any. Assets so classified must have a well-defined weakness or weaknesses that jeopardize the liquidation of the debt. They are characterized by the distinct possibility that the bank will sustain some loss if the deficiencies are not corrected. Loss potential, while existing in the aggregate amount of substandard assets, does not have to exist in individual assets classified substandard.

Doubtful Assets

An asset classified doubtful has all the weaknesses inherent in those classified substandard, with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently existing facts, conditions, and values, highly questionable and improbable.

The possibility of a loss on a doubtful asset is extremely high, but because of certain important and reasonably specific pending factors, which may work to the strengthening of the asset, its classification as an estimated loss is deferred until its more exact status may be determined. Pending factors include proposed merger, acquisition or liquidation procedures, capital injection, perfecting liens on additional collateral, and refinancing plans.

In some cases, examiners should determine a reasonable carrying value for a distressed asset and request a write-down through a charge to the loss reserve for loans or to other operating expenses for other assets. Such a determination should be based on tangible facts recorded in the bank's credit files and contained in reports on problem assets submitted to the board of directors or its committee and not solely on verbal assurances from the officer.

Examiners should avoid classifying an entire credit doubtful when collection of a specific portion appears highly probable. An example of proper utilization of the doubtful category is the case of a company being liquidated, where the trustee-in-bankruptcy has indicated a minimum disbursement of 40 percent and a maximum of 65 percent to unsecured credits, including the bank. In that situation, estimates are based on liquidation value appraisals with asset values yet to be realized. By

definition, the only portion of the credit that is doubtful is the 25 percent difference between 40 and 65 percent. A proper classification of such a credit would show 40 percent substandard, 25 percent doubtful, and 35 percent loss.

Examiners should avoid repeating a doubtful classification at subsequent examinations. The time between examinations should be sufficient to resolve pending factors. That is not to say that situations do not occur to necessitate continuation of the doubtful classification; however, the examiner should avoid continuation if pending events did not occur and repayment is now deferred awaiting new developments. That situation would normally merit classifying the debts as loss.

Loss Assets

Assets classified loss are considered uncollectible and of such little value that their continuance as bankable assets is not warranted. This classification does not mean that an asset has absolutely no recovery or salvage value but, rather, that it is not practical or desirable to defer writing off a basically worthless asset even though partial recovery may be effected in the future. Banks should not be allowed to attempt long-term recoveries while the asset remains booked. Losses should be taken in the period in which they surface as uncollectible.

Notes

The source of this annex is the Federal Reserve Board Commercial Bank Examination Manual.

1. Pass assets were not included in the 1985 revision to the Federal Reserve's asset classification guidelines but were added to more recent revisions used by other U.S. regulatory agencies.

Annex 6.

Prudential Regulation and Supervision

Economic deregulation and financial liberalization are important for a country to develop a viable and robust financial system. But deregulation will remove the protections that were previously afforded. Increased competition, a changing price structure, new market entrants, and other factors may increase the risks financial intermediaries assume and add to the instability of the financial system. Prudential regulation and supervision are designed to remove or lessen this threat.

Prudential Regulation

Prudential regulations governing the activities of financial intermediaries can be categorized in four general areas having to do with (a) corporate activities (licensing, mergers and acquisitions, branching, change in control, voluntary liquidation, and the like) and (b) the powers of bank supervisors. Ideally, the banking law governing these areas should be drafted broadly, granting powers to bank supervisors to implement the law through regulations, circulars, and other forms of administrative guidance.

Corporate Activities

CRITERIA FOR MARKET ENTRY. Since newly-licensed banks are particularly vulnerable to failure, the initial decision to grant a license is an important one. The licensing authority, preferably the bank supervisory agency, should have the ability to screen access to ownership and management to prevent individuals lacking professional qualifications, experience, financial backing, and sound ethical standards from obtaining a banking license. For *de nova* entry, for example, regulations should at least address the minimum amount of paid in capital, the qualifications of management, the development of reasonable business plans and projections, and the financial strength of the proposed owners. The establishment of specific criteria for

entry reduces the potential for political interference in the licensing process.

CHANGE IN CONTROL. To prevent the control of financial intermediary from falling into the hands of known or suspected criminals or others who have exhibited abusive conduct in the past, supervisors should be granted the authority to veto a change in control in bank ownership. In most cases, change in control is defined by an ownership stake in voting shares of 25 percent or more.

Prudential Controls and Limits

Prudential controls and limits on the activities of financial intermediaries are designed to control risk-taking by establishing the outside parameters or constraints within which banks are expected to operate. The following prudential controls and limits are the most common.

MINIMUM CAPITAL ADEQUACY GUIDELINES. Minimum capital adequacy guidelines should be established. In countries where banks' internal management information systems are weak, these guidelines may be expressed as a percentage of total assets. A level not less than 5-8 percent should be the absolute floor. However, this percentage should be increased on a case-by-case basis due to a bank's particular risk profile or where substantial off-balance-sheet risks exist. In countries where accounting and management information systems are more sophisticated, it is appropriate to adopt the risk-based capital adequacy guidelines formulated by the Basle Committee on Banking Supervision. In either case, the components of what constitutes capital should be clearly defined. Dividends should not be permitted if the minimum capital percentage is not met. Given that the purpose of capital is to absorb unusual losses, the measurement of capital adequacy should be related to the areas of greatest risk—assets and off-balance-sheet contingencies. Therefore, a minimum capital adequacy guideline based on assets is to be

preferred to one based on deposits.

LOANS TO INSIDERS. Limits on loans to insiders, including large shareholders and related companies, should be established. These limits should not only limit the amount of credit extended but should also require that the terms and conditions of such credits not be on more favorable terms than credit extended to similarly situated outside borrowers. Credit extended to directors, executive officers, and major shareholders should require the approval of the board of directors, with interested parties abstaining. In addition, borrowings obtained at other banks should be reported to the board of directors to preclude the possibility of "sweetheart" arrangements.

PERMISSIBLE OR PROHIBITED ACTIVITIES. Regulations should detail the permissible activities for banks and other financial intermediaries or, conversely, prohibited activities. Such regulations should address whether these institutions can engage in commercial activities, own equity stakes in firms or enterprises, and participate in non-banking financial activities.

ASSET CLASSIFICATION AND PROVISIONING. Banks and other financial intermediaries should systematically and realistically identify their problem assets and provide adequate reserves for possible losses. One way to accomplish this is to introduce regulations which require banks: (a) to classify their assets as to quality according to specific criteria (see annex 1), (b) to define non-performing assets,¹ (c) to require the suspension of interest and reversal of previously accrued but uncollected interest on non-performing assets, (d) to preclude the refinancing or capitalization of interest, and (e) to mandate minimum provisions to the reserve for possible losses based on the classification of assets.² The percentages established for provisions may in some sense be arbitrary. However, on balance, they will establish some discipline in the credit process and force the banks to more accurately reflect their actual state of affairs.

Sanctions

INSPECTION. Regulations should provide clear authorities for bank supervisors to inspect any and all record and documents pertaining to the affairs of the financial intermediary.

ASSET CLASSIFICATION AND PROVISIONING. Regulations should enable bank supervisors to direct the write-off of bad assets, require adequate provisions, cause the suspension of interest on non-performing assets, and require other adjustments

necessary to properly ensure that the condition of the financial intermediary is properly stated.

SCOPE, FREQUENCY, AND CONTENT OF THE AUDIT PROGRAM. External audits serve as a means to independently verify and disclose the financial condition of the bank or enterprise audited. Regulations should empower bank supervisors to establish auditing standards and minimum disclosure requirements. Key elements of the audit program should include an examination of portfolio quality and standards for valuing assets, establishment of reserves for losses, and treatment of interest on non-performing assets. In addition, supervisors should have the power to appoint or dismiss auditors. Auditors should also be under an affirmative obligation to inform the supervisors of significant findings in a timely manner. This can be done in a manner which respects the bank's right to know, except where criminal acts are involved.

PRUDENTIAL RETURNS. Regulations should permit bank supervisors to call for any information necessary for the performance of their duties within the time parameters and the format desired.

ENFORCEMENT POWERS. Banking regulations should provide supervisors with enforcement powers to deal with incompetent or abusive ownership and management including: (a) the ability to remove management or directors, (b) monetary fines or penalties that can be assessed against individuals, as well as institutions, for criminal acts or violations of the banking regulations, (c) civil money penalties that can be assessed against individuals for engaging in unsound and unsafe banking practices, (d) the right to restrict or suspend dividend payments, (e) the ability to withhold branch or other corporate approvals, (f) cease-and-desist authority, (g) the ability to impose financial liability against bank directors for losses incurred due to illegal acts carried out by the bank, and (h) the right to suspend deposit insurance coverage (if any), to preclude access to the interbank market, refinancing credit, or the discount window, and to cancel the banking license.

Cease-and-desist orders put the power of the legal system behind the supervisors in requiring changes in unsafe, unsound, or abusive practices. Banking legislation does not need to limit or prohibit the specific activity that is the focus of supervisory concern. However, any willful violation of the cease-and-desist order is accorded the same legal status as a violation of a specific statute and is subject to civil or criminal remedies in the legal system. Supervisors should also have the authority to issue temporary orders to cease and desist,

pending confirmation by the legal system, so that the bank will be forced to stop imprudent or abusive practices immediately.

BANK FAILURE. Banking regulations should permit bank supervisors to declare banks technically insolvent, to close banks, and to place them in receivership outside the normal corporate bankruptcy process. This is necessary if supervisors are to protect depositors' interests and ensure public confidence in their ability to handle financial distress in an orderly and efficient manner. As part of this process, supervisors will also need broad powers to remove and replace management, eliminate the interests of shareholders, and purchase, sell, or transfer problem assets.

Prudential Supervision

Organization

In order to effectively carry out its mandate to ensure the safety and soundness of the financial system, the bank supervision agency should ideally possess its own identity on at least a par with other important units within the central bank or ministry of an independent agency. The director of bank supervision should be a high ranking government official and report directly to the central bank governor or deputy governor or the minister of finance or treasury. This is necessary to establish an appropriate degree of credibility within the banking industry so that a directive issued by the supervisor will have the desired effect. In those instances where financial intermediaries are predominately owned by the government, it is essential that the bank supervisory agency is autonomous.

Methodologies

Bank supervision in the industrialized countries developed in response to financial crises, economic events, and political phenomena. Despite the different models of bank supervision that exist in the world today, there is a growing consensus that effective supervision of the financial system must encompass both on-site and off-site methodologies, supplemented by a strong accounting framework and external audits.

Since the ongoing task of bank supervisors is to ensure the safety and soundness of the financial system, supervisory activities should focus on the areas of greatest risk to the system, namely, large financial institutions or banks whose activities may lead to contagion within the system. Supervisors'

tools include on-site examinations of individual institutions and off-site surveillance. For most developing countries, on-site examinations are most important. This is because problems of insolvency in developing countries usually occur due to credit losses, which are best determined while within an institution. Therefore, supervisors must concentrate on assessing asset quality and mandating provisions for bad debts and suspension of interest on non-performing assets through on-site examination and verification.

ON-SITE EXAMINATIONS. On-site examinations should focus on assessing the condition and performance of the financial intermediary under examination. In carrying out this task, supervisors should focus on five key areas, the so-called CAMEL components. These are: (a) the adequacy of *capital* and reserves, (b) the quality and true value of *assets*, (c) the quality and depth of *management*, (d) the efficiency and quality of *earnings*, and (e) the prudence of asset and liability management practices in providing *liquidity* and reducing exposure to changes in interest rates. In addition, supervisors should ascertain compliance with laws and regulations and assess the effectiveness of the institution's internal management system.

MANAGEMENT SYSTEMS. The assessment of the institution's management systems (written or implied policies and procedures, accounting and administrative controls, management information systems, loan review system, internal and external audit activities, strategic planning, short-term planning and budgeting, and the like) is especially important since the examination process may otherwise only provide a "snapshot" of the institution's condition as of a given date without addressing potential risks and the management systems needed internally by the bank to control risk in a dynamic, changing environment. For example, examiners may determine the condition of a bank's loan portfolio but fail to evaluate the lending policies and practices leading to loan problems. By recommending the strengthening of management systems, bank supervisors become catalysts for changing the fundamental ways in which banks operate. Since the supervisors will always face resource constraints, the banks themselves must establish the first lines of defense against unsound or unsafe practices. Once management systems are in place, supervisors can determine that the systems are working by testing the systems. If the systems are inadequate, the scope of an examination should be expanded so that risks can be identified and quantified.

TOP-DOWN APPROACH. To improve the effectiveness of on-site examinations, bank supervisors should embrace a top-down examination approach that places emphasis on the direction and policies formulated by the board of directors and executive management. It is not enough to quantify problems—although this is certainly a necessary step. The causes of problems must also be understood and preventive action taken to reduce the likelihood of recurrence. In addition, efficient use of scarce supervisory resources should be made by targeting examination efforts of individual institutions to the areas of greatest risk—for example, asset quality, interest rate risk, foreign exchange activities, and the like.

FOLLOW-UP. Corrective actions required of the financial intermediary should be communicated directly to the bank's board of directors and senior management. This is normally done through a written examination report and meetings with the board of directors and executive management. A transmittal letter attached to the written examination report and signed by the head of the bank supervision agency or his designee should highlight the report's major conclusions and recommendations. In addition, the transmittal letter should require a formal response by the bank within a stated time frame. If progress reports concerning corrective actions to be taken by the bank are required, these should be outlined in the transmittal letter. Administrative procedures should be established for monitoring the bank's response and verifying corrective actions.

WRITTEN EXAMINATION PROCEDURES. To ensure consistency and uniformity, and to provide a training tool for new examiners, written examination procedures and questionnaires should be developed for use in on-site examinations. These are not meant to supplant the examiner's judgment but to provide a framework and support for the work to be carried out.

Off-Site Surveillance

An off-site surveillance capability provides an important complement to on-site examinations by providing early warning of actual or potential problems and a means of monitoring and should not be viewed as a means to replace on-site examination as the primary form of supervision in a developing country. The quality of information and integrity of data provided by banks in all countries

must be verified. In developing countries, the quality of information is frequently incomplete and inaccurate. Often, banks do not have the internal accounting and control systems to ensure timely and accurate preparation of information. Therefore, in most cases, it would be inappropriate to rely on off-site surveillance as more than a complement to on-site examinations.

Supervisors should use prudential reports to collect data that permits assessment of risk. This includes information concerning a bank's loan portfolio, including delinquencies and problem assets, foreign exchange position, off-balance-sheet commitments, and other risk areas, as well as a full balance sheet and statement of profit and loss. To ensure uniformity, supervisors should have the ability to prescribe the timing, content, and format of the prudential returns so that comparative data can be prepared and used in a consistent fashion.

It is critical that the off-site-surveillance function be fully integrated into the supervisory process so that weaknesses may be corrected. In some cases, it may be sufficient to contact the bank by phone or letter to discuss concerns identified off-site. However, in other cases, it might be necessary to send examiners into a bank to follow-up on the weaknesses identified through the off-site-surveillance function. In any event, information and reports prepared off-site can provide important comparative data on areas of risk and efficiency and should be used by examiners during their on-site examinations.

Notes

1. A frequently used definition defines non-performing assets as those which are ninety days or more past due and not well-secured and in process of collection.
2. Prudent banks operating on a sound basis should aim to have the following levels of provisions against asset losses: (a) pass assets—a general provision of at least 1 percent of all pass assets to meet contingent losses on disposal of any pass assets which may lead to bad or doubtful. Such a provision can be included in second tier capital under the Basle rules; (b) substandard—at least 20 percent provision against all substandard assets; (c) doubtful—at least 50 percent provision against doubtful debts; (d) bad or loss—100 percent of estimated loss between gross value of loan outstanding, less available provisions, and realistic value of collateral.

Annex 7.

Basle Agreement

COMMITTEE ON BANKING REGULATIONS AND SUPERVISORY PRACTICES INTERNATIONAL CONVERGENCE OF CAPITAL MEASUREMENT AND CAPITAL STANDARDS¹

Introduction

1. This report presents the outcome of the Committee's² work over several years to secure international convergence of supervisory regulations governing the capital adequacy of international banks. Following the publication of the Committee's proposals in December 1987, a consultative process was set in train in all G-10 countries and the proposals were also circulated to supervisory authorities worldwide. As a result of those consultations, some changes were made to the original proposals. The present paper is now a statement of the Committee agreed by all its members. It sets out the details of the agreed framework for measuring capital adequacy and the minimum standard to be achieved, which the national supervisory authorities represented on the Committee intend to implement in their respective countries. The framework and this standard have been endorsed by the Group of Ten central-bank Governors.

2. With a view to implementation as soon as possible, it is intended that national authorities should now prepare papers setting out their views on the timetable and the manner in which this accord will be implemented in their respective countries. This document is being circulated to supervisory authorities worldwide with a view to encouraging the adoption of this framework in

countries outside the G-10 in respect of banks conducting significant international business.

3. Two fundamental objectives lie at the heart of the Committee's work on regulatory convergence. These are, firstly, that the new framework should serve to strengthen the soundness and stability of the international banking system; and secondly that the framework should be fair and have a high degree of consistency in its application to banks in different countries with a view to diminishing an existing source of competitive inequality among international banks. The Committee notes that, in responding to the invitation to comment on its original proposals, banks have welcomed the general shape and rationale of the framework and have expressed support for the view that it should be applied as uniformly as possible at the national level.

4. Throughout the recent consultations, close contact has been maintained between the committee in Basle and the authorities of the European Community in Brussels who are pursuing a parallel initiative to develop a common solvency ratio to be applied to credit institutions in the community. The aim has been to ensure the maximum degree of consistency between the framework agreed in Basle and the framework to be applied in the Community. It is the Committee's hope and expectation that this consistency can be achieved, although it should be noted that regulations in the

European Community are designed to apply to credit institutions generally, whereas the Committee's framework is directed more specifically with banks undertaking international business in mind.

5. In developing the framework described in this document, the Committee has sought to arrive at a set of principles which are conceptually sound and at the same time pay due regard to particular features of the present supervisory and accounting systems in individual member countries. It believes that this objective has been achieved. The framework provides for a transitional period so that the existing circumstances in different countries can be reflected in flexible arrangements that allow time for adjustment.

6. In certain very limited respects (notably as regards some of the risk weightings), the framework allows for a degree of national discretion in the way in which it is applied. The impact of such discrepancies on the overall ratios is likely to be negligible, and it is not considered that they will compromise the basic objectives. Nevertheless, the Committee intends to monitor and review the application of the framework in the period ahead with a view to achieving even greater consistency.

7. It should be stressed that the agreed framework is designed to establish *minimum* levels of capital for internationally active banks. National authorities will be free to adopt arrangements that set higher levels.

8. It should also be emphasized that capital adequacy as measured by the present framework, though important, is one of a number of factors to be taken into account when assessing the strength of banks. The framework in this document is mainly directed towards assessing capital in relation to credit risk (the risk of counterpart failure), but other risks, notably interest rate risk and the investment risk on securities, need to be taken into account by supervisors in assessing overall capital adequacy. The Committee is examining possible approaches in relation to these risks. Furthermore, and more generally, capital ratios, judged in isolation, may provide a misleading guide to relative strength. Much also depends on the quality of a bank's assets and, importantly, the level of provisions a bank may be holding outside its capital against assets of doubtful value. Recognizing the close relationship between capital and provisions, the Committee will continue to monitor provisioning policies by banks in member

countries and will seek to promote convergence of policies in this field as in other regulatory matters. In assessing progress by banks in member countries towards meeting the agreed capital standards, the Committee will therefore take careful account of any differences in existing policies and procedures for setting the level of provisions among countries' banks and in the form in which such provisions are constituted.

9. The Committee is aware that differences between countries in the fiscal treatment and accounting presentation for tax purposes of certain classes of provisions for losses and of capital reserves derived from retained earnings may to some extent distort the comparability of the real or apparent capital positions of international banks. Convergence in tax regimes, though desirable, lies outside the competence of the Committee and tax considerations are not addressed in this paper. However, the Committee wishes to keep these tax and accounting matters under review to the extent that they affect the comparability of the capital adequacy of different countries' banking systems.

10. This agreement is intended to be applied to banks on a consolidated basis, including subsidiaries undertaking banking and financial business. At the same time, the Committee recognizes that ownership structures and the position of banks within financial conglomerate groups are undergoing significant changes. The Committee will be concerned to ensure that ownership structures should not be such as to weaken the capital position of the bank or expose it to risks stemming from other parts of the group. The Committee will continue to keep these developments under review in the light of the particular regulations in member countries, in order to ensure that the integrity of the capital of banks is maintained. In the case of several of the subjects for further work mentioned above, notably investment risk and the consolidated supervision of financial groups, the European Community has undertaken or is undertaking work with similar objectives and close liaison will be maintained.

11. This document is divided into four sections. The first two describe the framework: the constituents of capital and the risk weighing system. The next section deals with the target standard ratio; and the final section with transitional and implementing arrangements (text modified to remove section numbers).

The Constituents of Capital

Core Capital (Basic Equity)

12. The Committee considers that the key element of capital on which the main emphasis should be placed is equity capital³ and disclosed reserves. This key element of capital is the only element common to all countries' banking systems; it is wholly visible in the published accounts and is the basis on which most market judgements of capital adequacy are made, and it has a crucial bearing on profit margins and a bank's ability to compete. This emphasis on equity capital and disclosed reserves reflects the importance the Committee attaches to securing a progressive enhancement in the quality, as well as the level, of the total capital resources maintained by major banks.

13. Notwithstanding this emphasis, the member countries of the Committee also consider that there are a number of other important and legitimate constituents of a bank's capital base which may be included within the system of measurement (subject to certain conditions set out in subsection (b) below).

14. The Committee has therefore concluded that capital, for supervisory purposes, should be defined in two tiers in a way which will have the effect of requiring at least 50 percent of a bank's capital base to consist of a core element comprised of equity capital and published reserves from post-tax retained earnings (tier 1). The other elements of capital (supplementary capital) will be admitted into tier 2 up to an amount equal to that of the core capital. These supplementary capital elements and the particular conditions attaching to their inclusion in the capital base are set out below and in more detail in annex 1 [of the original document]. Each of these elements may be included or not included by national authorities at their discretion in the light of their national accounting and supervisory regulations.⁴

Supplementary Capital

UNDISCLOSED RESERVES

15. Unpublished or hidden reserves may be constituted in various ways according to differing legal and accounting regimes in member countries. Under this heading are included only reserves which, though unpublished, have been passed

through the Profit and Loss account and which are accepted by the bank's supervisory authorities. They may be inherently of the same intrinsic quality as published retained earnings, but, in the context of an internationally agreed minimum standard, their lack of transparency, together with the fact that many countries do not recognize undisclosed reserves, either as an accepted accounting concept or as a legitimate element of capital, argue for excluding them from the core equity capital element.

REVALUATION RESERVES

16. Some countries, under their national regulatory or accounting arrangement, allow certain assets to be revalued to reflect their current value, or something closer to their current value than historic cost, and the resultant revaluation reserves included in the capital base. Such revaluations can arise in two ways:

(a) from a formal revaluation, carried through to the balance sheets of banks' own premises; or

(b) from a notional addition to capital of hidden values which arise from the practice of holding securities in the balance sheet valued at historic cost.

Such reserves may be included within supplementary capital provided that the assets are considered by the supervisory authority to be prudently valued, fully reflecting the possibility of price fluctuations and forced sale.

17. Alternative (b) is relevant to those banks whose balance sheets traditionally included very substantial amounts of equities held in their portfolio at historic cost but which can be, and on occasions are, realized at current prices and used to offset losses. The Committee considers these "latent" revaluation reserves can be included among supplementary elements of capital since they can be used to absorb losses on a going-concern basis, provided they are subject to a substantial discount in order to reflect concerns both about market volatility and about the tax charge which would arise were such gains to be realized. A discount of 55 percent on the difference between the historic cost book value and market value is agreed to be appropriate in the light of these considerations. The Committee considered, but rejected, the proposition that latent reserves arising in respect of the undervaluation of bank's premises should also be included within the definition of supplementary capital.

GENERAL PROVISIONS/GENERAL LOAN LOSS RESERVES

18. General provisions or general loan-loss reserves are created against the possibility of future losses. Where they are not ascribed to particular assets and do not reflect a reduction in the valuation of particular assets, these reserves qualify for inclusion in capital and it has been agreed that they should be counted with tier 2. Where, however, provisions have been created against identified losses or in respect of a demonstrable deterioration in the value of particular assets, they are not freely available to meet unidentified losses which may subsequently arise elsewhere in the portfolio and do not possess an essential characteristic of capital. Such specific or earmarked provisions should therefore not be included in the capital base.

19. The Committee accepts, however, that, in practice, it is not always possible to distinguish clearly between general provisions (or general loan loss reserves) which are genuinely freely available and those provisions which in reality are earmarked against assets already identified as impaired. This partly reflects the present diversity of accounting, supervisory, and, importantly, fiscal policies in respect of provisioning and in respect of national definitions of capital. This means, inevitably, that initially there will be a degree of inconsistency in the characteristics of general provisions or general loan-loss reserves included by different member countries within the framework.

20. In the light of these uncertainties, the Committee intends during the transitional period (see paragraphs 45 to 50 below) to clarify the distinction made in member countries between those elements which should conceptually be regarded as part of capital and those which should not qualify. The Committee will aim to develop before the end of 1990 firm proposals applicable to all member countries, so as to ensure consistency in the definition of general provisions and general loan-loss reserves eligible for inclusion in the capital base by the time the interim and final minimum target standards fall to be observed.

21. As further safeguard, in the event that agreement is not reached on the refined definition of unencumbered resources eligible for inclusion in supplementary capital, where general provisions and general loan-loss reserves may include amounts reflecting lower valuations for assets or latent but unidentified losses present in the balance sheet, the amount of such reserves or provisions that qualify as capital would be phased down

so that, at the end of the transitional period, such items would constitute no more than 1.25 percentage points, or exceptionally and temporarily up to 2.0 percentage points, of risk assets within the secondary elements.

HYBRID DEBT CAPITAL INSTRUMENTS

22. In this category fall a number of capital instruments which combine certain characteristics of debt. Each of these has particular features which can be considered to affect its quality as capital. It has been agreed that, where these instruments have close similarities to equity, in particular when they are able to support losses on an on-going basis without triggering liquidation, they may be included in supplementary capital. In addition to perpetual preference shares carrying a cumulative fixed charge, the following instruments, for example, may qualify for inclusion: long-term preferred shares in Canada, *titres* and *titres subordonnés à durée indéterminée* in France, Genussscheine in Germany, perpetual debt instruments in the United Kingdom, and mandatory convertible debt instruments in the United States. The qualifying criteria for such instruments are set out in annex 1 [of the original document].

SUBORDINATED TERM DEBT

23. The Committee has agreed that subordinated term debt instruments have significant deficiencies as constituents of capital in view of their fixed maturity and inability to absorb losses except in a liquidation. These deficiencies justify an additional restriction on the amount of such debt capital which is eligible for inclusion within the capital base. Consequently, it has been concluded that subordinated term debt instruments with a minimum original term to maturity of over five years may be included within the supplementary elements of capital but only to a maximum of 50 percent of the core capital element and subject to adequate amortisation arrangements.

Deductions from Capital

24. It has been concluded that the following deductions should be made from the capital base for the purpose of calculating the risk-weighted capital ratio. The deductions will consist of:

- (i) goodwill, as a deduction from tier 1 capital elements;
- (ii) investments in subsidiaries engaged in

banking and financial activities which are not consolidated in national systems. The normal practice will be to consolidate subsidiaries for the purpose of assessing the capital adequacy of banking groups. Where this is not done, deduction is essential to prevent the multiple use of the same capital resources in different parts of the group. The deduction for such investments will be made against the total capital base. The assets representing the investments in subsidiary companies whose capital had been deducted from that of the parent would not be included in total assets for the purposes of computing the ratio.

25. The Committee carefully considered the possibility of requiring deduction of banks' holdings of capital issued by other banks or deposit-taking institutions, whether in the form of equity or of other capital instruments. Several G-10 supervisory authorities currently require such a deduction to be made in order to discourage the banking system as a whole from creating cross-holdings of capital, rather than drawing capital from outside investors. The Committee is very conscious that such double-gearing (or "double-leveraging") can have systemic dangers for the banking system by making it more vulnerable to the rapid transmission of problems from one institution to another and some members consider these dangers justify a policy of full deduction of such holdings.

26. Despite these concerns, however, the Committee as a whole is not presently in favor of a general policy of deducting all holdings of other banks' capital, on the grounds that to do so could impede certain significant and desirable changes taking place in the structure of domestic banking systems.

27. The Committee has nonetheless agreed that:

(a) individual supervisory authorities should be free at their discretion to apply a policy of deduction, either for all holdings of other banks' capital, or for holdings which exceed material limits in relation to the holding bank's capital or the issuing bank's capital, or a case-by-case basis;

(b) where no deduction is applied, banks' holdings or other banks' capital instruments will bear a weight of 100 percent;

(c) in applying these policies, member countries consider that reciprocal cross-holdings of bank capital designed artificially to inflate the capital position of the banks concerned should not be permitted;

(d) the Committee will closely monitor the degree of double-gearing in the international bank-

ing system and does not preclude the possibility of introducing constraints at a later date. For this purpose, supervisory authorities intend to ensure that adequate statistics are made available to enable them and the Committee to monitor the development of banks' holdings of other banks' equity and debt instruments which rank as capital under the present agreement.

The Risk Weights

28. The Committee considers that a weighted risk ratio, in which capital is related to different categories of asset or off-balance-sheet exposure, weighted according to broad categories of relative riskiness, is the preferred method for assessing the capital adequacy of banks. This is not to say that other methods of capital measurement are not also useful, but they are considered by the Committee to be supplementary to the risk weight approach. The Committee believes that a risk ratio has the following advantages over the simpler gearing ratio approach:

(i) it provides a fair basis for making international comparisons between banking systems whose structures may differ;

(ii) it allows off-balance-sheet exposures to be incorporated more easily into the measure;

(iii) it does not deter banks from holding liquid or other assets which carry low risk

29. The framework of weights has been kept as simple as possible and only five weights are used—0, 10, 20, 50, and 100 percent. There are inevitably some broad-brush judgements in deciding which weight should apply to different types of asset, and the weightings should not be regarded as a substitute for commercial judgement for purposes of market pricing of the different instruments.

30. The weighing structure is set out in detail in annexes 2 and 3 [of the original document]. There are six aspects of the structure to which attention is particularly drawn.

Categories of Risk Captured in the Framework

31. There are many different kinds of risks against which banks' managements need to guard. For most banks the major risk is *credit risk*, that is to say the risk of counterpart failure, but there are many other kinds of risk—for example, investment risk, interest rate risk, exchange rate risk, concentration risk. The central focus of this framework is credit risk and, as a further aspect of credit risk, country transfer risk. In addition, individual

supervisory authorities have discretion to build in certain other types of risk. Some countries, for example, will wish to retain a weighing for open foreign exchange position or for some aspects of investment risk. No standardization has been attempted in the treatment of these other kinds of risk in the framework at the present stage.

32. The Committee considered the desirability of seeking to incorporate additional weighing to reflect the investment risk in holdings of fixed rate government securities—one manifestation of interest rate risk which is of course present across the whole range of a bank's activities, on an off the balance sheet. For the present, it was concluded that individual supervisory authorities should be free to apply either a zero or a low weight to claims on government (e.g., 10 percent for all securities or 10 percent for those maturing in under one year and 20 percent for one year and over). All members agreed, however, that interest rate risk generally required further study and that if, in due course, further work made it possible to develop a satisfactory method of measurement for this aspect of risk for the business as a whole, consideration should be given to applying some appropriate control alongside this credit risk framework. Work is already under way to explore the possibilities in this regard.

COUNTRY TRANSFER RISK

33. In addressing country transfer risk, the Committee has been very conscious of the difficulty of devising a satisfactory method for incorporating country transfer risk into the framework of measurement. In its earlier, consultative paper, two alternative approaches were put forward for consideration and comment. These were, firstly, a simple differentiation between claims on domestic institutions (central government, official sector and banks) and claims on all foreign countries; and secondly, differentiation on the basis of an approach involving the selection of a defined grouping of countries considered to be of high credit standing.

34. The comments submitted to the Committee by banks and banking associations in G-10 countries during the consultative period were overwhelmingly in favor of the second alternative. In support of this view, three particular arguments were strongly represented to the Committee. Firstly, it was stressed that a simple domestic/foreign split effectively ignores the reality that

transfer risk varies greatly between different countries and that this risk is of sufficient significance to make it necessary to ensure that broad distinctions in the credit standing of industrialized and non-industrialized countries should be made and captured in the system of measurement, particularly one designed for international banks. Secondly, it was argued that the domestic/foreign split does not reflect the global integration of financial markets and the absence of some further refinement would discourage international banks from holding securities issued by central governments of major foreign countries as liquid cover against their Euro-currency liabilities. To that extent a domestic/foreign approach would run counter to an important objective of the risk weighing framework, namely that it should encourage prudent liquidity management. Thirdly, and most importantly, the member states of the European Community are firmly committed to the principle that all claims on banks, central governments and the official sector within European Community countries should be treated in the same way. This means that, where such a principle is put into effect, there would be an undesirable symmetry in the manner in which a domestic/foreign split was applied by the seven G-10 countries which are members of the Community compared with the manner in which it was applied by the non-Community countries.

35. In the light of these arguments, the Committee has concluded that a defined group of countries should be adopted as the basis for applying differential weighing coefficients, and that this group should be full members of the OECD or countries which have concluded special lending arrangements with the IMF associated with the Fund's General Arrangements to Borrow. This group of countries is referred to as the OECD in the rest of the report.

36. This decision has the following consequences for the weighing structure. Claims on central governments within the OECD will attract a zero weight (or a low weight if the national supervisory authority elects to incorporate interest rate risk); and claims on OECD non-central government public-sector entities will attract a low weight [see (iii) below]. Claims on central governments and central banks outside the OECD will also attract a zero weight (or a low weight if the national supervisory authority elects to incorporate interest rate risk), provided such claims are denominated in the national currency and funded by li-

abilities in the same currency. This reflects the absence of risks relating to the availability and transfer of foreign exchange on such claims.

37. As regards the treatment of interbank claims, in order to preserve the efficiency and liquidity of the international interbank market there will be no differentiation between short-term claims on banks incorporated within or outside the OECD. However, the Committee draws a distinction between, on the one hand, short-term placements with other banks which is an accepted method of managing liquidity in the interbank market and carries a perception of low risk and, on the other, longer-term cross-border loans to banks which are often associated with particular transactions and carry greater transfer and/or credit risks. A 20 percent weight will therefore be applied to claims on all banks, wherever incorporated, with a residual maturity of up to and including one year; longer-term claims on OECD incorporated banks will be weighted at 20 percent; and longer-term claims on banks incorporated outside the OECD will be weighted at 100 percent.

CLAIMS ON NON-CENTRAL GOVERNMENT, PUBLIC SECTOR ENTITIES (PSEs)

38. The Committee concluded that it was not possible to settle on a single common weight that can be applied to all claims on domestic public-sector entities below the level of central government (e.g., states, local authorities, etc.), in view of the special character and varying creditworthiness of these entities in different member countries. The Committee therefore opted to allow discretion to each national supervisory authority to determine the appropriate weighing factors for the PSEs within that country. In order to preserve a degree of convergence in the application of such discretion, the Committee agreed that the weights ascribed in this way should be 0, 10, 20, 50 percent for domestic PSEs but that PSEs in foreign countries within the OECD should attract a standard 20 percent weight. These arrangements will be subject to review by the Committee in pursuit of further convergence towards common weights and consistent definitions in member countries and in the light of decisions to be taken within the European Community on the specification of a common solvency ratio for credit institutions.

Commercial companies owned by the public sector will attract a uniform weight of 100 percent *inter alia* in order to avoid competitive inequality

vis-à-vis similar private-sector commercial enterprises.

COLLATERAL AND GUARANTEES

39. The framework recognizes the importance of collateral in reducing credit risk, but only to a limited extent. In view of the varying practices among banks in different countries for taking collateral and different experiences of the stability of physical or financial collateral values, it has not been found possible to develop a basis for recognizing collateral generally in the weighing system. The more limited recognition of collateral will apply only to loans secured against cash or against securities issued by OECD central governments and specified multilateral development banks. These will attract the weight given to the collateral L (i.e., a zero or a low weight). Loans partially collateralized by these assets will also attract the equivalent low weights on that part of the loan which is fully collateralized.

40. As regards loans or other exposures guaranteed by third parties, the Committee has agreed that loans guaranteed by OECD central governments, OECD public-sector entities, or OECD incorporated banks will attract the weight allocated to a direct claim on the guarantor (e.g., 20 percent in the case of banks). Loans guaranteed by non-OECD incorporated banks will also be recognized by the application of a 20 percent weight but only where the underlying transaction has a residual maturity not exceeding one year. The Committee intends to monitor the application of this latter arrangement to ensure that it does not give rise to inappropriate weighing of commercial loans. In the case of loans covered by partial guarantees, only that part of the loan which is covered by the guarantee will attract the reduced weight. The contingent liability assumed by banks in respect of guarantees will attract a credit conversion factor of 100 percent [see subsection (vi) below].

LOANS SECURED ON RESIDENTIAL PROPERTY

41. Loans fully secured by mortgage on occupied residential property have a very low record of loss in most countries. The framework will recognize this by assigning a 50 percent weight to loans fully secured by mortgage on residential property which is rented or is (or is intended to be) occupied by the borrower. In applying a 50 percent weight, the supervisory authorities will sat-

isfy themselves, according to their national arrangements for the provision of housing finance, that this concessionary weight is applied restrictively for residential purposes and in accordance with strict prudential criteria. This may mean, for example, that in some member countries the 50 percent weight will only apply to first mortgages, creating a first charge on the property; and that in other member countries it will only be applied where strict, legally-based, valuation rules ensure a substantial margin of additional security over the amount of the loan. The 50 percent weight will specifically not be applied to loans to companies engaged in speculative residential building or property development. Other collateral will not be regarded as justifying the reduction of the weightings that would otherwise apply.⁵

OFF-BALANCE-SHEET ENGAGEMENTS

42. The Committee believes that it is of great importance that all off-balance-sheet activity should be caught within the capital adequacy framework. At the same time, it is recognized that there is only limited experience in assessing the risks in some of the activities; also that for some countries, a complex analytical approach and detailed and frequent reporting systems cannot easily be justified when the amounts of such business, particularly in the newer, more innovative instruments, are only small. The approach that has been agreed, which is on the same lines as that described in the Committee's report on the supervisory treatment of off-balance-sheet exposures issued to banks in March 1986, is comprehensive in that all categories of off-balance-sheet engagement, including recent innovations, will be converted to credit risk equivalents by multiplying the nominal principal amounts by a credit conversion factor, the resulting amounts then being weighted according to the nature of the counterpart. The different instruments and techniques are divided into five broad categories (within which member countries will have some limited discretion to allocate particular instruments according to their individual characteristics in national markets):

(a) Those which substitute for loans (e.g., general guarantees of indebtedness, bank acceptance guarantees and standby letter of credit serving as financial guarantees for loans and securities); these will carry a 100 percent credit risk conversion factor;

(b) certain transaction related contingencies (e.g., performance bonds, bid bonds, warranties

and standby letters of credit related to particular transactions), a 50 percent credit risk conversion factor;

(c) short-term, self-liquidating trade-related contingent liabilities arising from the movement of goods (e.g., documentary credits collateralized by the underlying shipments), a 20 percent credit risk conversion factor;

(d) commitments with an original maturity⁶ exceeding one year (the longer maturity serving broadly as a proxy for higher risk facilities) and all NIFs and RUFs a 50 percent credit risk conversion factor. Shorter-term commitments or commitments which can be unconditionally canceled at any time, it is agreed, generally carry only low risk and a nil weight for these is considered to be justified on *de minimis* grounds;

(e) interest and exchange rate related items (e.g., swaps, options, futures); the credit risk equivalent amount for these contracts will be calculated in one of two ways (see below and annex 4 [of the original document]).

43. Special treatment is needed for the items in (e) above because banks are not exposed to credit risk for the full face value of their contracts, but only to the cost of replacing the cash flow if a counterpart defaults. Most members of the Committee accept that the correct method of assessing the credit risk on these items is to calculate the current replacement cost by marking to market and to add a factor to represent potential exposure during the remaining life of the contract. Some member countries, however, are concerned about the consistency of this method in relation to the rest of the system which only makes broad distinctions between relative risks for off-balance-sheet items, particularly for banks where these off-balance-sheet items currently constitute only a very small part of the total risks. They would prefer to apply an alternative approach consisting of conversion factors based on the nominal principal sum underlying each contract according to its type and maturity. The Committee has concluded that members will be allowed to choose either of the two methods. The details of the two alternative methods are set out in annex 4 [of the original document].

A Target Standard Ratio

44. In the light of consultations and preliminary testing of the framework, the Committee has agreed that a minimum standard should be set now which international banks generally will be

expected to achieve by the end of the transitional period. It is also agreed that this standard should be set at a level that is consistent with the objective of securing over time soundly-based and consistent capital ratios for all international banks. Accordingly, the Committee confirms that the target standard ratio of capital to weighted risk assets should be set at 8 percent (of which the core capital element will be at least 4 percent). This is expressed as a common minimum standard which international banks in member countries will be expected to observe by the end of 1992, thus allowing a transitional period of some four-and-a-half years for any necessary adjustment by banks who need time to build up to those levels. The Committee fully recognized that the transition from existing, sometimes long-established, definitions of capital and methods of measurement towards a new internationally agreed standard will not necessarily be achieved easily or quickly. The full period to end-1992 is available to ensure progressive steps towards adjustment and banks whose ratios are presently below the 8 percent standard will not be required to take immediate or precipitate action.

Transitional and Implementing Arrangements

Transition

45. Certain transitional arrangements have been agreed upon to ensure that there are sustained efforts during the transitional period to build up individual banks' ratios towards the ultimate target standard; and to facilitate smooth adjustment and phasing in of the new arrangement within a wide variety of existing supervisory systems.

46. The transitional period will be from the date of this paper to the end of 1992, by which latter date all banks undertaking significant cross-border business will be expected to meet the standard in full (see paragraph 50 below). In addition, there will be an interim standard to be met by the end of 1990 (see paragraph 49 below).

47. Initially no formal standard or minimum level will be set. It is the general view of the Committee, however, that every encouragement should be given to those banks whose capital levels are at the low end of the range to build up their capital as quickly as possible and the Committee expects there to be no erosion of existing capital standards in individual member countries' banks. Thus, during the transitional period, all banks which need

to improve capital levels up to the interim and final standard should not diminish even temporarily their current capital levels (subject to the fluctuations which can occur around the time new capital is raised). A level of 5 percent attained by application of the framework and transitional arrangements is considered by some countries to be a reasonable yardstick for the lower-capitalized banks to seek to attain in the short term. Individual member countries will, of course, be free to set, and announce, at the outset of the transitional period the level from which they would expect all their banks to move towards the interim and final target standard. In order to assess and compare progress during the initial period of adjustment to end-1990 in a manner which takes account both of existing supervisory systems and the new arrangements, the Committee and individual supervisory authorities will initially apply the basis of measurement set out in paragraph 48 below.

48. In measuring the capital position of banks at the start of the transitional period, a proportion of the core capital may be made up of supplementary elements up to a maximum of 25 percent of core capital elements, reducing to 10 percent by end 1990. In addition, throughout the transitional period up to end 1992, subject to more restrictive policies which individual authorities may wish to apply, term subordinated debt may be included without limit as a constituent of supplementary elements and the deduction from tier 1 capital elements in respect of goodwill may be waived.

49. At end 1990 there will be an interim minimum standard of 7.25 percent of which at least half should be core capital. However, between end 1990 and end 1992 up to 10 percent of the required core elements may be made up of supplementary elements. This means, in round figures, a minimum core capital element of 3.6 percent, of which tier 1 elements should total at least 3.25 percent is to be achieved by the end of 1990. In addition, from end 1990, general loan loss reserves or general provisions which include amounts reflecting lower valuations of assets or latent but unidentified losses present in the balance sheet will be limited to 1.5 percentage points, or exceptionally up to 2.0 percentage points, of risk assets within supplementary elements.⁷

50. At end 1992 the transitional period ends. The minimum standard will then be 8 percent, of which core capital (tier 1, equity and reserves) will be at least 4 percent, supplementary elements no more than 50 percent of tier 1. In addition, general loan loss reserves or general provisions (having

the characteristics described in paragraph 49) will be limited at end 1992 to 1.25 percentage points, or exceptionally and temporarily up to 2.0 percentage points, within supplementary elements.

For ease of reference, the arrangements described in paragraphs 35 and 50 are summarized in a table at annex 5 [of the original document].

Implementation

51. The arrangements described in this document will be implemented at national level at the earliest possible opportunity. Each country will decide the way in which the supervisory authorities will introduce and apply these recommendations in the light of their different legal structures and existing supervisory arrangements. In some countries, changes in the capital regime may be introduced, after consultation, relatively speedily without the need for legislation. Other countries may employ more lengthy procedures, and in some cases these may require legislation. In due course the member states of the European Community will also need to ensure that their own domestic regulations are compatible with the Community's own legislative proposals in this field. None of these factors needs result in any inconsistency in the timing of implementation among member countries. For example, some countries may apply the framework in this report, formally or informally, in parallel with their existing system, certainly during the initial period of transition. In this way banks can be assisted to start the necessary process of adjustment in good time before substantive changes in national systems are formally introduced.

Notes

1. Referred to as the "Basle Agreement." Reprinted from the original text as issued by the Basle Committee, but with the presentation modified to conform to the format used in the guide.

2. The Basle Committee on Banking Regulations and Supervisory Practices comprises the representatives of the central banks and supervisory authorities of the Group of Ten countries—Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, Switzerland, United Kingdom, United States, and Luxembourg. The Committee meets at the Bank for International Settlements, Basle, Switzerland.

3. Issued and fully paid for ordinary shares/common stock and non-cumulative perpetual preferred stock (but excluding cumulative preferred stock).

4. One member country, however, maintains the view that an international definition of capital should be confined to core capital elements and indicated that it would continue to press for the definition to be reconsidered by the Committee in the years ahead.

5. One member country feels strongly that the lower weight should also apply to other loans secured by mortgages on domestic property, provided that the amount of the loan does not exceed 50 percent of the value of the property as calculated according to strict legal valuation criteria.

6. In order to facilitate data collection, during the transitional period up to end 1992, but not beyond, national supervisory authorities will have discretion to apply residual maturity as a basis for measuring commitments.

7. These limits would only apply in the event that no agreement is reached on a consistent basis for including unencumbered provisions or reserves in capital (see paragraphs 20 and 21).

Annex 8.

Risk Management Evaluation

LOAN PORTFOLIO MANAGEMENT¹ EVALUATION PROCEDURES

1. Request *reports* on the following from the bank, by department, as of the examination date, unless otherwise specified:

a. *Past-due loans*

This report should cover:

- Single payment notes 30 days or more past maturity.
- Single payment notes with interest due at specified intervals and demand notes on which interest is due and unpaid for 30 days or more.

and should include the following minimum information:

- Name of the obligor
- Original amount of the loan
- Outstanding amount of the loan
- Date the loan was made
- Due date
- Terms of the loan
- Number of payments the loan is delinquent
- Date of the borrower's last payment
- Interest billing cycle
- Date up to which interest is paid.

For larger loans, the report should also include:

- Purpose of the loan
- Any action being taken.

b. Loans in a non-accrual status.

c. Loans on which interest is not being collected in accordance with the terms of the loan.

d. Loans whose terms have been modified by a reduction of interest rate or principal payment, by a deferral of interest or principal, or by other restructuring of repayment terms.

e. Loan participations in consortium credits

since previous examination.

f. Loans considered "problem loans" by management. (This report may be either as of the examination date or as submitted to officer's loan review committee, loan and discount committee, or board of directors.)

g. Loan commitments and contingent liabilities.

h. Loans secured by stock of other banks and rights, interests, or powers of a savings and loan association.

i. Extensions of credit to employees, officers, directors, principal shareholders, and their interests.

j. Extensions of credit to officers and directors of other banks and principal shareholders of correspondent banks.

2. Obtain the following regarding the role of the Board of Directors:

a. A copy of written policies covering all lending functions.

b. A statement of whether a standing committee administered the lending function.

c. Copies of reports furnished to the board for its meetings.

d. Lists of directors, executive officers, principal shareholders, and their interests.

e. A list of rebooked charged-off loans approved by the directors.

3. Obtain a copy of the latest reports furnished to the loan committee.

4. Review the lending policies and updates thereto and abstract appropriate excerpts on:

- a. Distribution of loans by category.
 - b. Geographic limitations.
 - c. Industrial concentration limitations.
 - d. Allowable or desirable ratios of loans to other balance sheet accounts.
 - e. Lending authorities of committees and officers.
 - f. Any prohibited types of loans.
 - g. Maximum maturities for various types of loans.
 - h. Interest rate structure.
 - i. Minimum down payments for various types of loans.
 - j. Collateral appraisal policies including:
 - Persons authorized to perform appraisals
 - Lending values of various types of property.
 - k. Financial information requirements by types of loans.
 - l. Guidelines for purchasing paper.
 - m. Guidelines for loans to major stockholders, directors, officers, or their interests.
 - n. Guidelines for determining creditworthiness of any institution or customer on whose behalf the bank executes funds transfers.
5. Perform the following steps for past-due loans:
- a. Compare the following to determine any material inconsistencies:
 - The past-due loan schedule received in step 1
 - Delinquency reports submitted to the board
 - List of loans considered "problem" loans by management
 - Delinquency lists submitted for regulatory purposes.
 - b. Scan the delinquency lists submitted to the board, to determine that reports are sufficiently detailed to evaluate risk factors.
 - c. Compile current aggregate totals of past-due paper.
6. Through discussion with departmental management, evaluate the quality of the internal loan review personnel considering:
- a. Level of education.
 - b. Significant experience.
 - c. Availability and participation in continuing education programs.
 - d. Training methods.
 - e. Level and quality of supervision.
7. Through discussion with appropriate personnel and the possible use of flow charts, organizational charts, observation, investigation, and the like, analyze the operation of the overall internal loan review process. Determine:
- a. Method of loan selection.
 - b. Manner in which the loan is analyzed.
 - c. Type of report generated.
 - d. Use of results by appropriate bank personnel.
 - e. That procedures are in effect to monitor compliance with loan terms and/or loan agreements.
 - f. Any possible internal restrictions placed on the review function personnel.
 - g. Which internal grade classification qualifies a credit for the problem loan list.
 - h. Procedures required to remove a loan from criticized and/or problem loan list.

Notes

1. Based on "Comptroller's Handbook for National Bank Examiners."

Annex 9.

Risk Control Questionnaire

LOAN PORTFOLIO MANAGEMENT INTERNAL CONTROL QUESTIONNAIRE

Review the bank's internal controls, policies, practices, and procedures for managing the bank's loan portfolio. The bank's system should be documented in a complete and concise manner and should include, where appropriate, narrative descriptions, flow charts, copies of forms used, and other pertinent information.

1. Has the board of directors, consistent with its duties and responsibilities, adopted written loan portfolio management policies and objectives that:
 - a. Establish suggested guidelines for distribution of loans in commercial, real estate, and installment categories?
 - b. Establish geographic limits for loans?
 - c. Establish suggested guidelines for aggregate outstanding loans in relation to other balance sheet categories?
 - d. Establish loan authority of committees and individual lending officers?
 - e. Define acceptable types of loans?
 - f. Establish maximum maturities for various types of loans?
 - g. Establish loan pricing?
 - h. Establish appraisal policy?
 - i. Establish minimum financial information required at inception of credit?
 - j. Establish limits and guidelines for purchasing paper?
 - k. Establish guidelines for loans to bank directors, officers, principal shareholders, and their related interests?
 - l. Establish collection procedures?
 - m. Define the duties and responsibilities of loan officers and loan committees?
- n. Outline loan portfolio management objectives that acknowledge:
 - Concentrations of credit within specific industries?
 - The need to employ personnel with specialized knowledge and experience?
 - Community service obligations?
 - Possible conflicts of interests?
2. Are loan portfolio management policies and objectives reviewed at least annually to determine if they are compatible with changing market conditions?
3. Are the following reported to the board of directors or its committees (indicate which) at their regular meetings (at least monthly):
 - a. Past due single payment notes (if so, indicate the minimum days past due for them to be included)?
 - b. Notes on which interest only is past due (if so, indicate the minimum days past due for them to be included)?
 - c. Term loans on which one installment is past due (if so, indicate the minimum days past due for them to be included)?
 - d. Total outstanding loan commitments?
 - e. Loans requiring special attention?
 - f. New loans and loan renewals or restructured loans?
4. Are reports submitted to the board or its committees rechecked by a designated individual for possible omissions prior to their submission?

5. Are written applications required for all loans?
 6. Does the bank maintain credit files for all borrowers?
 7. Does the credit file contain information on:
 - a. The purpose of the loan?
 - b. The planned repayment schedule?
 - c. The disposition of loan proceeds?
 8. Does the bank require periodic submission of financial statements by all borrowers whose loans are not fully secured by readily marketable collateral?
 9. Is a tickler file maintained to ensure that current financial information is requested and received?
 10. Does the bank require submission of audited financial statements based on dollar amount of commitment (if so, state the dollar minimum for requiring the audited statement)?
 11. Does the bank perform a credit investigation on proposed and existing borrowers for new loan applications?
 12. Is it required that all loan commitments be in writing?
 13. Are lines of credit reviewed and updated at least annually?
 14. Are borrowers' outstanding liabilities checked to appropriate lines of credit prior to granting additional advances?
 15. Does the bank employ a procedure for disclosure of a loan or combination of loans that are or will be secured by 25 percent of another insured financial institution's stock?
 16. Is there an internal review system (it may be a function of the internal audit department) that covers each department and:
 - a. Rechecks interest, discount, and maturity date computations?
 - b. Re-examines notes for proper execution, receipt of all required supporting papers, and proper disclosure forms?
 - c. Determines that loan approvals are within the limits of the bank's lending authorities?
 - d. Determines that documentation is satisfactory prior to disbursing loan proceeds?
 - e. Ascertains that new loans are within the limitations set for the borrower by corporate resolution?
 - f. Rechecks liability ledger to determine that new loans have been accurately posted?
 - g. Rechecks the preparation of maturity and interest notices?
 - h. Examines entries to various general ledger loan controls?
 - i. Confirms collateral, loans, and discounts with customers on a test basis?
17. Does the bank have a loan review section or the equivalent?
 18. Is the loan review sector independent of the lending function?
 19. Are the initial results of the loan review process submitted to a person or committee, which is also independent of the lending function?
 20. Are all loans exceeding a certain dollar amount selected for review?
 21. Do lending officers recommend loans for review?
 22. Is a method, other than those detailed in steps 20 or 21, used to select loans for review (if so, provide details)?
 23. Are internal reviews conducted at least annually for all lending areas?
 24. In an officer identification system, are guidelines in effect which define the consequences of an officer withholding a loan from the review process?
 25. Is the bank's problem-loan list periodically updated by the lending officers?
 26. Does the bank maintain a list of loans reviewed, indicating the date of the review and the credit rating?
 27. Does the loan review section prepare summations to substantiate credit ratings, including pass loans?

28. Are loan review summations maintained in a central location or in appropriate credit files?

29. Are follow-up procedures in effect for internally classified loans, including an update memorandum to the appropriate credit file?

(Note: The 13 preceding questions relate to step 17 of the examination procedures for this section.)

30. Are officers and employees prohibited from holding blank signed notes in anticipation of future borrowings?

31. Are paid and renewed notes canceled and promptly returned to customers?

32. Do loan proceeds disbursed in cash require a customer receipt?

33. Are loan records retained in accordance with record retention policy and legal requirements?

34. Are new notes microfilmed daily? Or is there a back-up system in place for notes?

35. Is a systematic and progressively stronger follow-up notice procedure utilized for delinquent loans?

36. Does the bank maintain loan interest rate schedules for various types of loans?

37. Does the bank periodically update interest rate schedules (if so, state normal frequency)?

38. Does the bank maintain records in sufficient detail to generate the following information by type of advance:

- a. The cost of funds loaned?
- b. The cost of servicing loans, including overhead?
- c. The cost factor of probable losses?
- d. The programmed profit margin?

39. Has the bank conducted industry studies for those industries in which it is a substantial lender?

40. Conclusion: Is the foregoing information considered an adequate basis for evaluating internal control in that there are no significant additional internal auditing procedures, accounting controls, administrative controls, or other circumstances that impair any controls or mitigate any weaknesses indicated above (explain negative answers briefly and indicate conclusions as to their effect on specific examination or verification procedures)?



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